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# Kauai Coastal Recreation Management Plan

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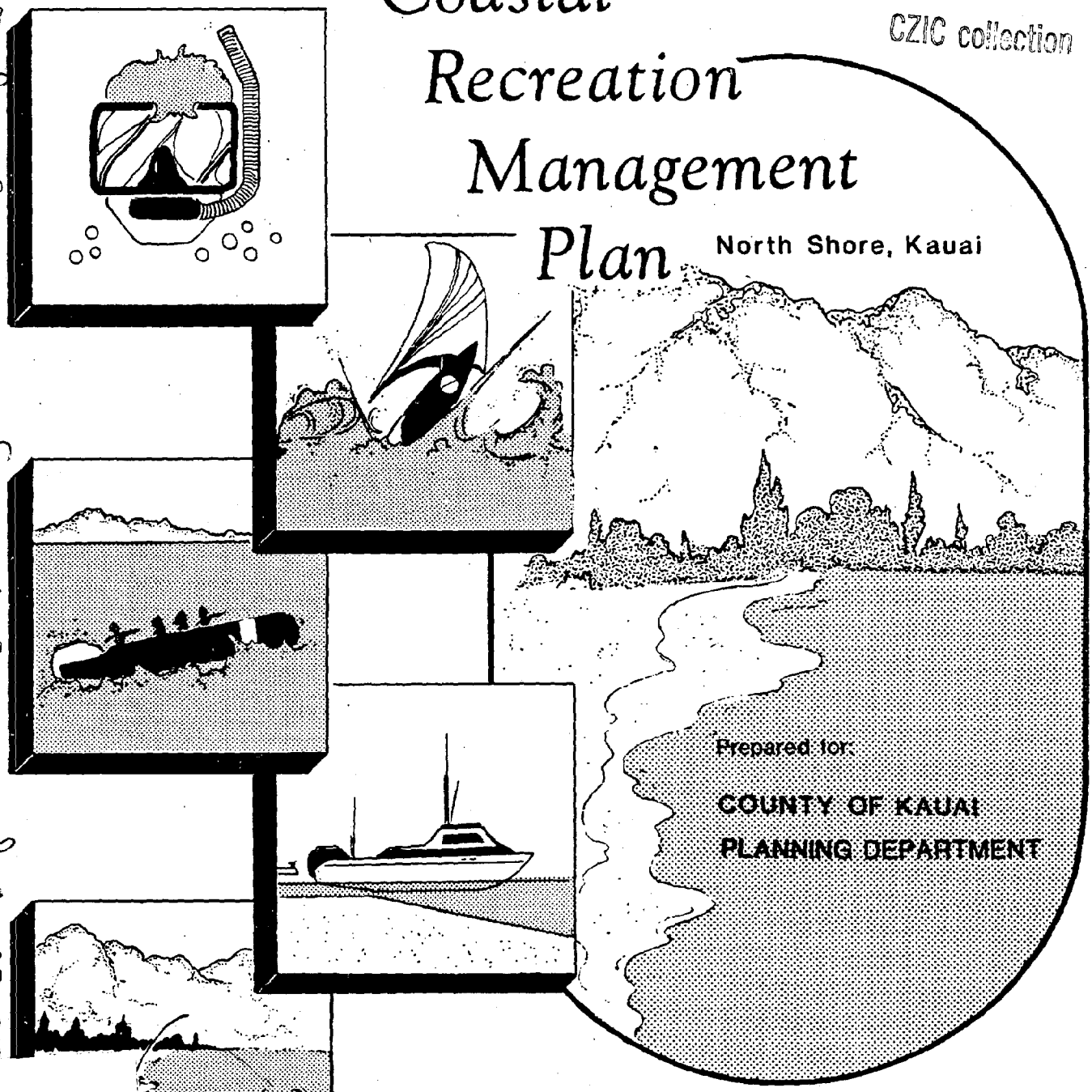

Prepared for:

COUNTY OF KAUAI
PLANNING DEPARTMENT

Prepared by:

Wilson Okamoto
& Associates, Inc.

State of Hawaii Department of Planning & Economic Development

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# KAUAI COASTAL RECREATION MANAGEMENT PLAN

## NORTH SHORE, KAUAI

CZIC collection

Prepared for the
Planning Department, County of Kauai

Prepared by
Wilson Okamoto and Associates, Inc.

U.S. DEPARTMENT OF COMMERCE NOAA
COASTAL SERVICES CENTER
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# I. INTRODUCTION

# I. INTRODUCTION

The sudden "discovery" by visitors to Kauai of the awesome natural beauty and diverse ocean recreational opportunities along Kauai's North Shore has spawned a fast growing service industry. This service industry is dependent on use of public resources such as beach parks and facilities. While use of these resources for profit has not previously been an issue on Kauai, the industry's rapid growth has created public concern among the Kauai residents, North Shore communities, and commercial operators.

Only a few years ago, the most conspicuous commercial users of these resources were fishermen, many of whom rely on fishing to feed their families, sometimes selling portions of their catch to supplement their income. Visitors attracted to Kauai by the natural beauty of its beaches and scenery also evidenced the economic dependence of the visitor industry on these resources. Visitor facilities and their operations, including hotels and car rental companies, did not generally exploit or encroach physically upon these resources. At that time, commercial recreation was limited to guided sightseeing by vans and buses, charter fishing operations, a small tour boat operation running inflatable "Zodiacs" along the scenic Na Pali Coast and helicopter tours of the same area.

Since that time, the visitor industry on Kauai has enjoyed growth; new commercial operations offering unique recreational and sightseeing experiences have found an expansive market for their services. The State Board of Land and Natural Resources issued 23 revocable permits to Kauai tour boat operators in 1985; 40 permits were issued in 1986. In response to public concern, however, the State Legislature in 1985 passed a resolution declaring a moratorium on further issuance of tour boat permits. Other commercial services continued to proliferate, including

windsurfing lessons and rentals, SCUBA tours, snorkeling tours, combined bicycling/snorkeling tours, jet skiing lessons and rentals, and pedal-powered boat rentals.

The summer of 1985 saw unprecedented growth in the diversity and magnitude of commercially promoted recreation on Kauai's North Shore. The sudden appearance of new commercial operations at public parks and recreation areas stunned the North Shore communities which were already in the midst of changes associated with the island-wide growth of the visitor industry, and the influx of new residents from the Mainland.

Growing concern was heard from residents, both malihini and kamaaina, as well as the commercial operators themselves. In response, the State Department of Transportation organized an Ad Hoc Committee to help develop rules governing commercial and public recreational activities in the shorewaters of the State. The Board of Land and Natural Resources (BLNR), which had established the revocable permit system to monitor the capacity of the North Shore areas to handle tour boating, was put under increasing pressure to restrict the number of permits issued. This was finally accomplished in 1986, in response to the legislatively requested moratorium.

The County of Kauai issued the temporary Special Management Area permit which allowed the BLNR to establish the revocable permit system. Since then, the County has periodically renewed the SMA permit in anticipation of developing a more lasting management solution. One of the solutions being pursued by the County of Kauai is the establishment of a County permit system to regulate commercial activities in public parks and recreation areas.

This study is a response to public concern over commercial activities on Kauai's North Shore. It was prepared by the County of Kauai to provide a basis for decisions related to the control and regulation of commercial activities in County parks. In addition, recognizing the involvement of

State agencies in managing areas outside of County control, this study considers the roles and efforts of these State agencies and offers recommendations to them which are intended to achieve better coordination.

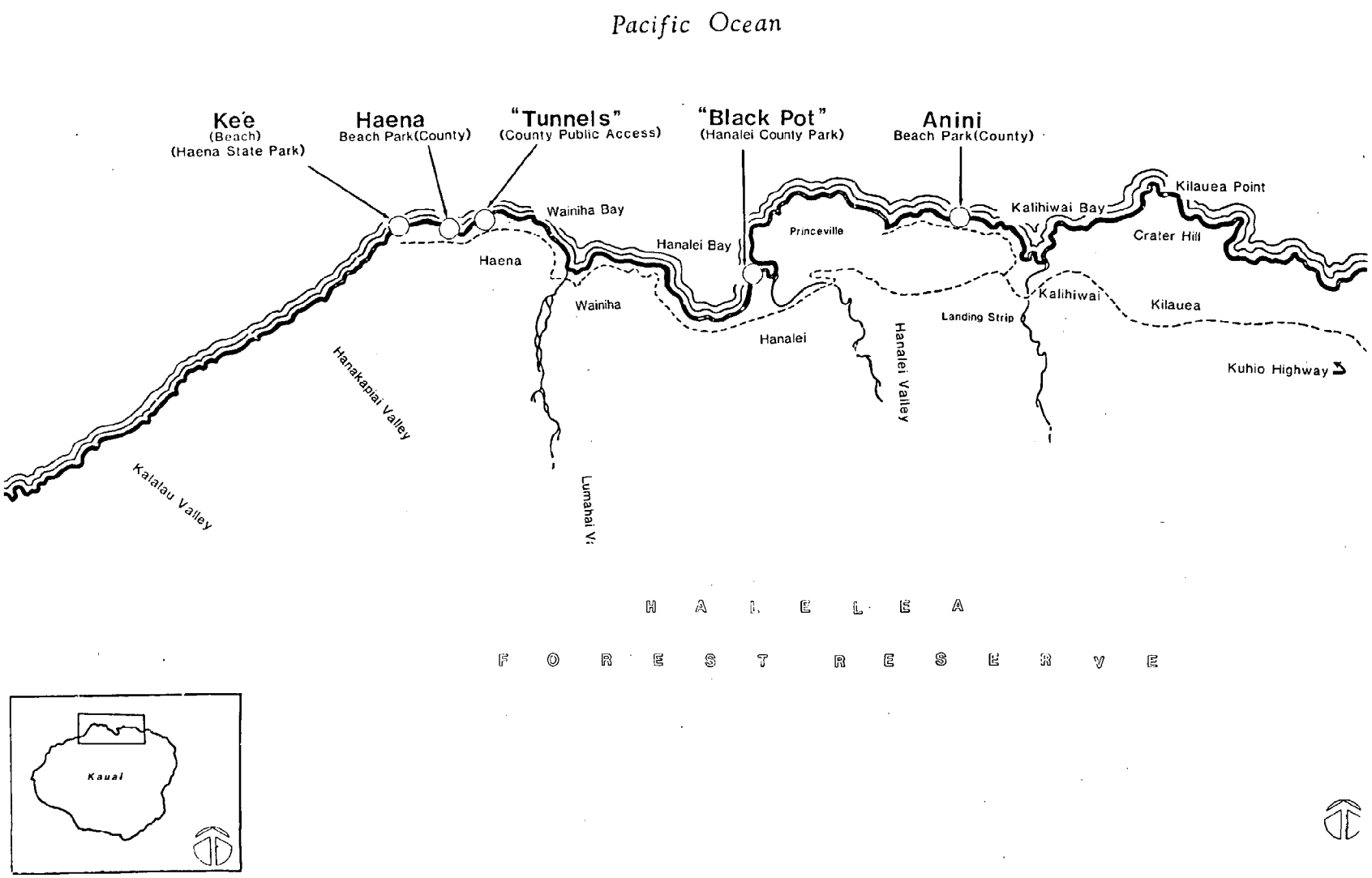
# II. METHODOLOGY

# II. METHODOLOGY

The methodology employed in preparing this plan identifies problems and formulates appropriate solutions. The process for doing this, requires problems to be identified specifically rather than generally. For example, instead of identifying "commercial operations" as a problem to be solved, one of the problems may be identified as "the congestion at a particular boat launching ramp". Then, the various activities at the launch ramp can be examined to determine what causes the problem. Solutions would be directed toward managing the activities of various persons using the ramp. Inasmuch as decisions regarding who should be managed may be necessary, objectives and policies are needed to guide those decisions. To formulate appropriate management recommendations, various authorities and jurisdictions must be clearly defined and recommendations must be directed to the proper agency.

This plan encompasses five different recreation areas along the North Shore of Kauai identified as problem areas by the County of Kauai: Black Pot Park, Anini Beach Park, Haena County Park, Tunnels Beach and Kee Beach. See Figure 1.

Chapter III, Resources discusses the recreational resources offered at each of the study sites. These include natural resources such as beaches for sunbathing, fishing areas, or surfing sites as well as existing facilities such as boat launching ramps, parking, rest rooms and showers. Various user groups are identified and their activities documented to determine who is using which resources. Carrying capacities of resources and facilities are discussed to identify where capacities are being exceeded and creating problems. To the extent feasible, these carrying capacities are discussed in quantitative terms. In other instances, a qualitative approach is necessary, for example, when discussing the capacity of a recreation area to provide a rural atmosphere.




COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 1

## NORTH SHORE STUDY AREA MAP

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County of Kauai
Planning Department

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To document uses of the five parks and recreation areas addressed by this study, and to determine various carrying capacities, several information gathering approaches were employed. First, one weekday and one weekend day observation were conducted at each of the sites. Black Pot Park was observed on Thursday, May 15, 1986 and Saturday, May 17, 1986. Anini Beach Park, Haena County Park, Tunnels Beach and Kee Beach were observed on Friday May 16, 1986 and Sunday, May 18, 1986. These observations included detailed notations of recreation and parking activities at each site. Observations were conducted every half hour at Black Pot Park and Anini Beach Park due to the magnitude of problems reported at these sites. Observations of Tunnels Beach, Haena County Park and Kee Beach were made every hour. In addition, continuous observations of boating activities were conducted at Black Pot Park and Tunnels Beach. Anini Beach Park was continuously monitored for commercial activities such as windsurfing instruction, and boating.

To estimate historic use patterns of the study sites, County camping permit data from 1985 was surveyed. This data was available for Anini Beach Park, Haena County Park and Black Pot Park. Due to the County's policy of assessing permit fees from out-of-state visitors, rates of use by visitors and State residents could be determined.

Data on commercial boating was obtained from the State Department of Land and Natural Resources. These included historic passenger and landing counts as well as the number of passengers and landings allowed by the revocable permits.

Additional information about management of the study sites was obtained through interviews with officials of various State and County agencies. These included the County Parks Department, Planning Department, Police Department and Fire Department as well as the State Departments of Transportation and Land and Natural Resources.

Chapter IV, Management Authorities describes the existing management regime governing activities in the subject beach parks and recreation areas. Also discussed are efforts of agencies involved in addressing current public concerns.

The Objectives and Policies presented in Chapter V of this plan, were derived from those presented in various planning and program documents pertaining to activities occurring at these recreation areas. These plans and programs include the Hawaii State Plan, the State Functional Plan for Recreation, the Hawaii Coastal Zone Management Program, the State of Hawaii Ocean Management Plan, the County of Kauai General Plan, the North Shore Development Plan, the Kauai Parks and Recreation Master Plan, and the DOT's Management Master Plan for Hanalei Bay and North Shore, Kauai.

Public presentations were made before the Coastal Zone Management Program Statewide Advisory Committee and the State Department of Transportation Ad Hoc Committee which is assisting in the formulation of regulations governing activities in the shorewaters of the State.

Implementation of this plan may include preparation of an ordinance for managing commercial activities in county parks. The plan will also serve as the policy guide for the County's participation in the State Department of Transportation's Ad Hoc Advisory Committee.

# III. RESOURCES

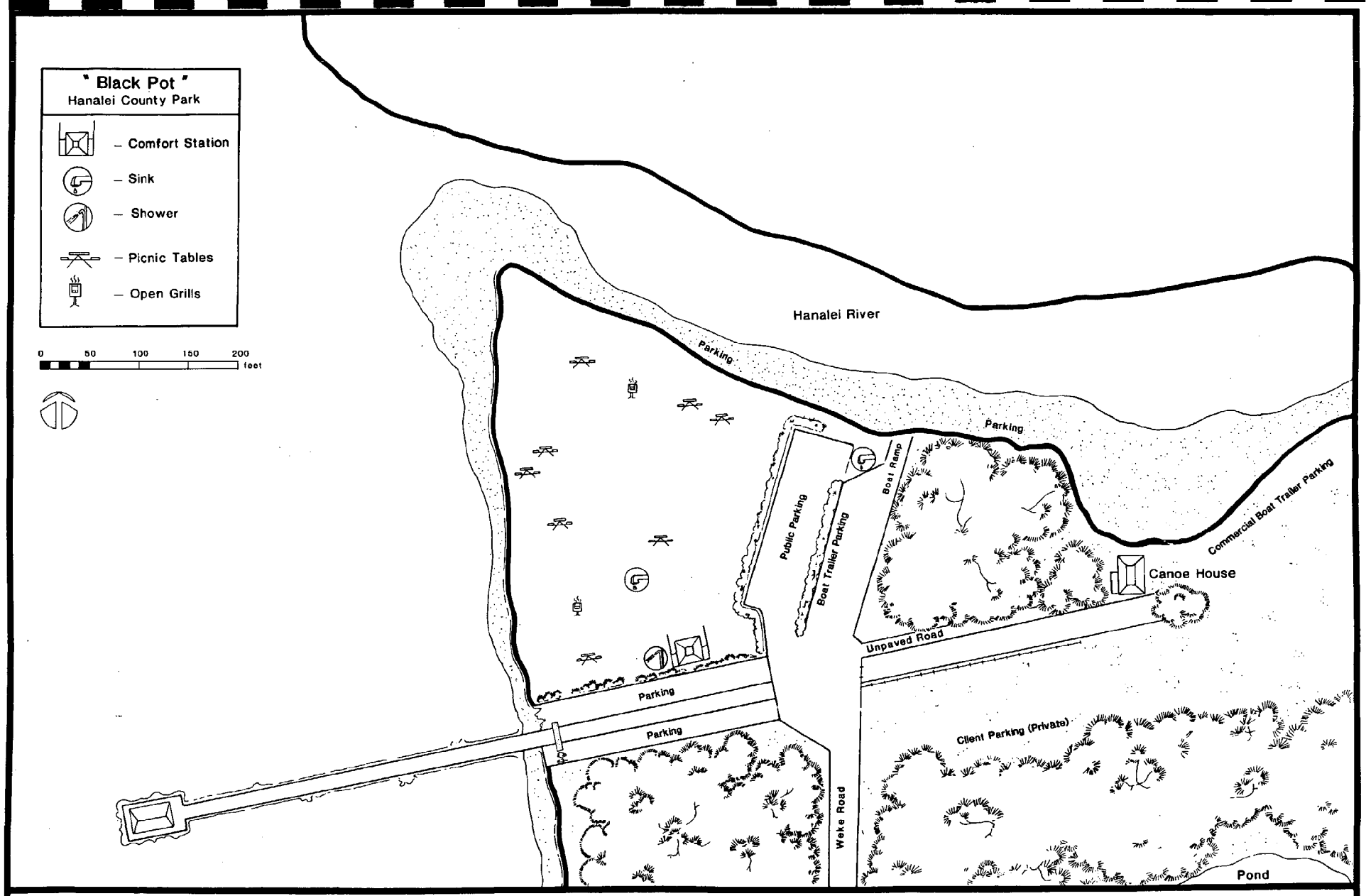
## A. BLACK POT COUNTY PARK

### Description

Black Pot County Park is located at the north end of Hanalei Bay. The 2.5 acre park is maintained by the County of Kauai as a passive recreational area providing opportunities for picnicking, camping (on weekends only), boat launching, fishing, sunbathing and swimming. The Park is bounded on the north by the Hanalei River, on the west by the sea, on the south by the Hanalei Wharf and on the east by Weke Road. See Figure 2. Among county facilities available at the Park is a boat launching ramp at the end of Weke Road. The ramp is buried under accreted sand and now serves as a driveway to the sandy river bank where boats are launched. Other county facilities include parking areas, a boat washdown hose bib near the buried launch ramp, rest rooms, showers, sinks, picnic tables, barbecue grills and trash containers. The State of Hawaii Department of Transportation owns the Hanalei Wharf which is currently used primarily for sightseeing, fishing and swimming. Along the north side of the Wharf is a roadway leading onto the beach, which is used as a boat launching ramp. The roadway is owned by the State, and is hereafter referred to as the State boat launching ramp.

### Park Use

Black Pot Park offers a diverse of recreational and commercial opportunities. See Figure 3. In addition to camping, picnicking and boating facilities, the Park provides access to a sandy beach extending from the Hanalei River bank, past the Hanalei Wharf, and all along Hanalei Bay to Makahoa Point. Sunbathing, walking and jogging along this long stretch of beach are common activities. During summer months, the calm and clear waters of the Bay are ideal for swimming while in the winter, surfing sites can be found to the south of the Park. Hawaiian canoe paddling is practiced in the Hanalei River and Bay, particularly by the Hanalei Canoe Club, which maintains a canoe shed across Weke Road.




COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 2

## BLACK POT PARK EXISTING FACILITIES MAP

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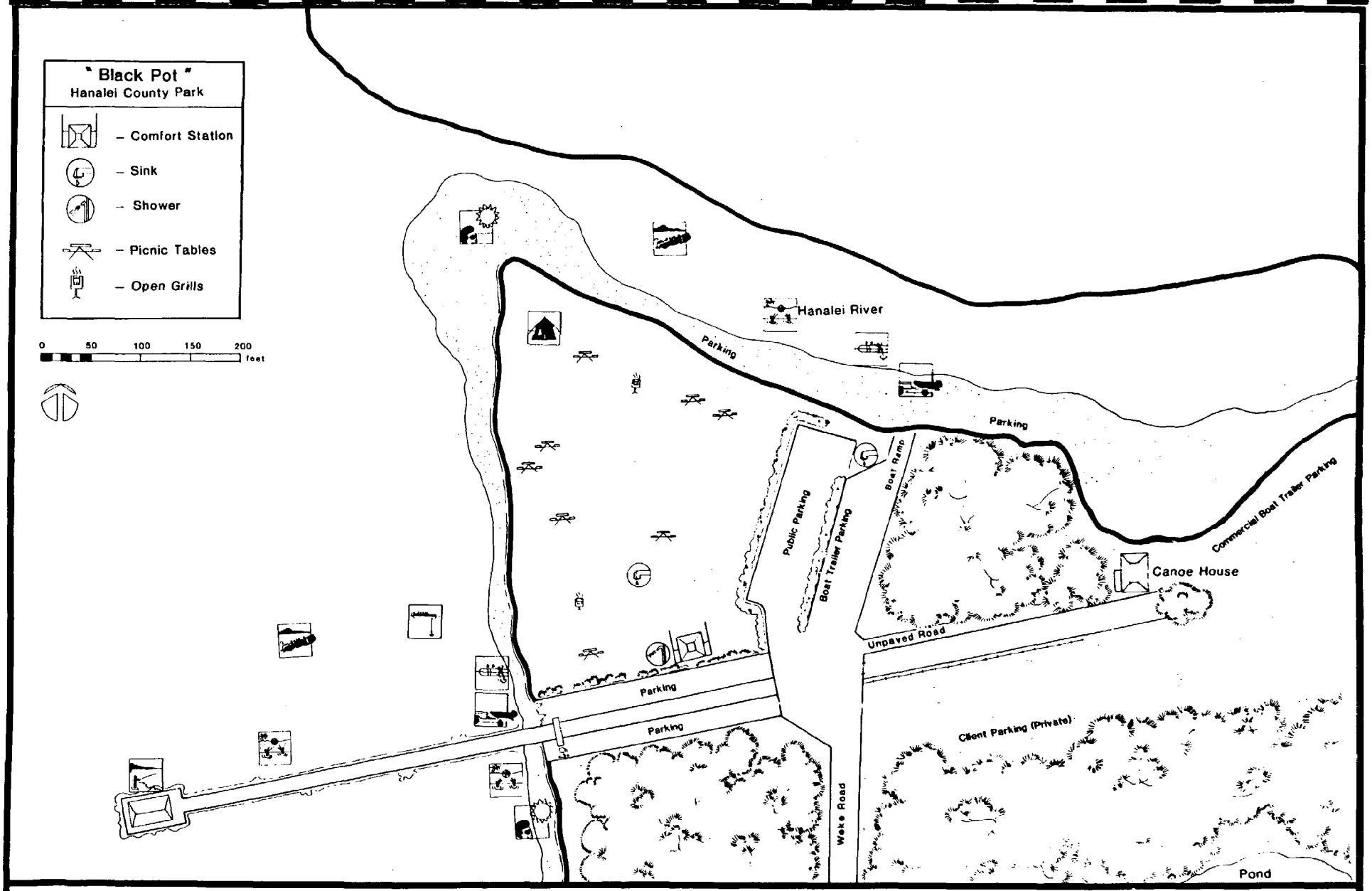


COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 3 BLACK POT PARK RECREATIONAL ACTIVITIES MAP

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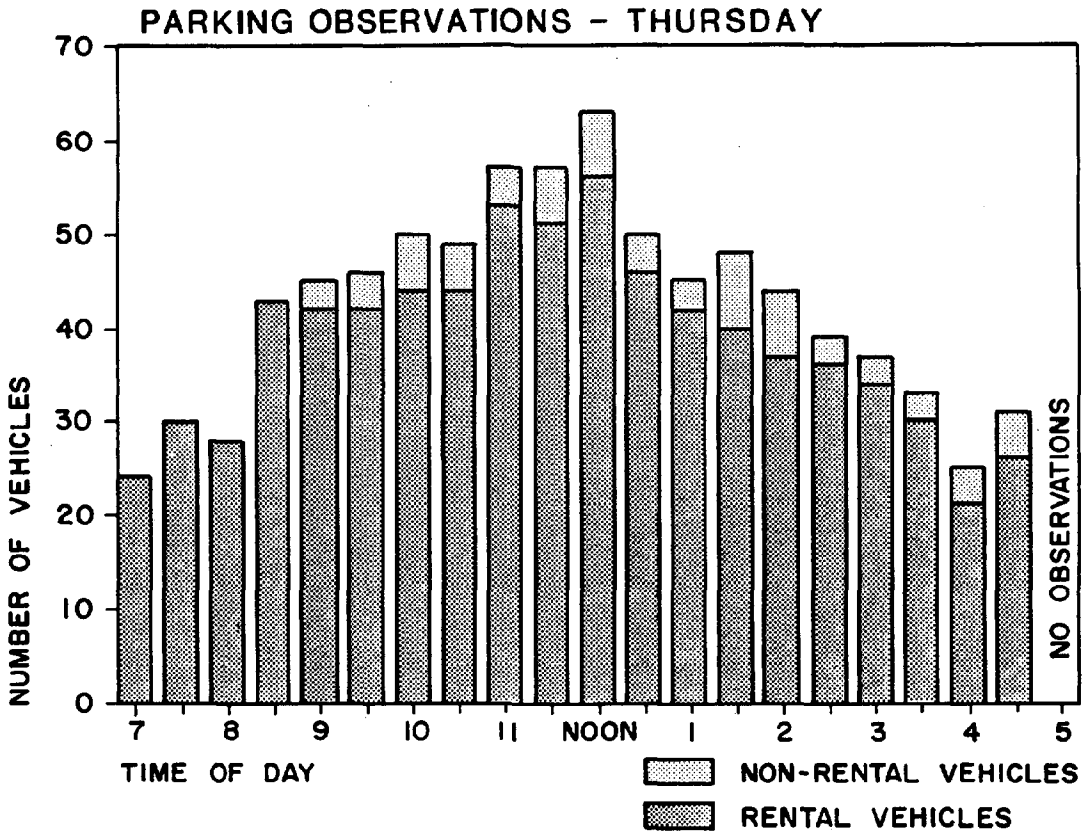
The waters to the south of the Wharf are designated by the State Department of Transportation as a mooring area for vessels. Fishing in the Bay is productive and pursued both for recreation and commercially from shore and boat.

Historically, the primary users of Black Pot Park included commercial and recreational fishermen and local residents. More recently, commercial tour boat operations have used the Park for boat launching and as a passenger terminal.

Since the Park is not located alongside Kuhio Highway, it is not frequented by very many visitors touring the island in rental cars. The parking survey conducted in conjunction with this study confirmed that visitor use of the Park is far less than at parks located along the highway. Less than one in five cars observed in the county parking lot and along the Wharf were rental cars. See Figure 4. Several of these cars were parked there by clients of tour operators in violation of conditions imposed on the operator's revocable permits. In the sandy river bank area, only two rental vehicles were noted during each of the two days of observation. By comparison, rental cars at different times of the day could account for 80% to 90% of the vehicles at Haena County Park which is located directly off of Kuhio Highway. In the parking areas at Kee Beach, which is at the end of the highway, rental vehicles accounted for 70% to 80% of the observed vehicles throughout most of the day.

As a camping area, Black Pot Park has long been a favored site among residents of the State. See Figure 5. Data on the issuance of county camping permits in 1985 shows that of the 1,346 persons camping at the Park with permits, 90 percent were residents of the State. During the summer months, this rate rose to 95 percent. Camping was also most intense during summer months, with June, July and August tallying the highest total camper counts for the year, at 242, 290, and 234, respectively. The highest day count was achieved on July 19, when there were 53 campers in the Park, all of whom were residents.



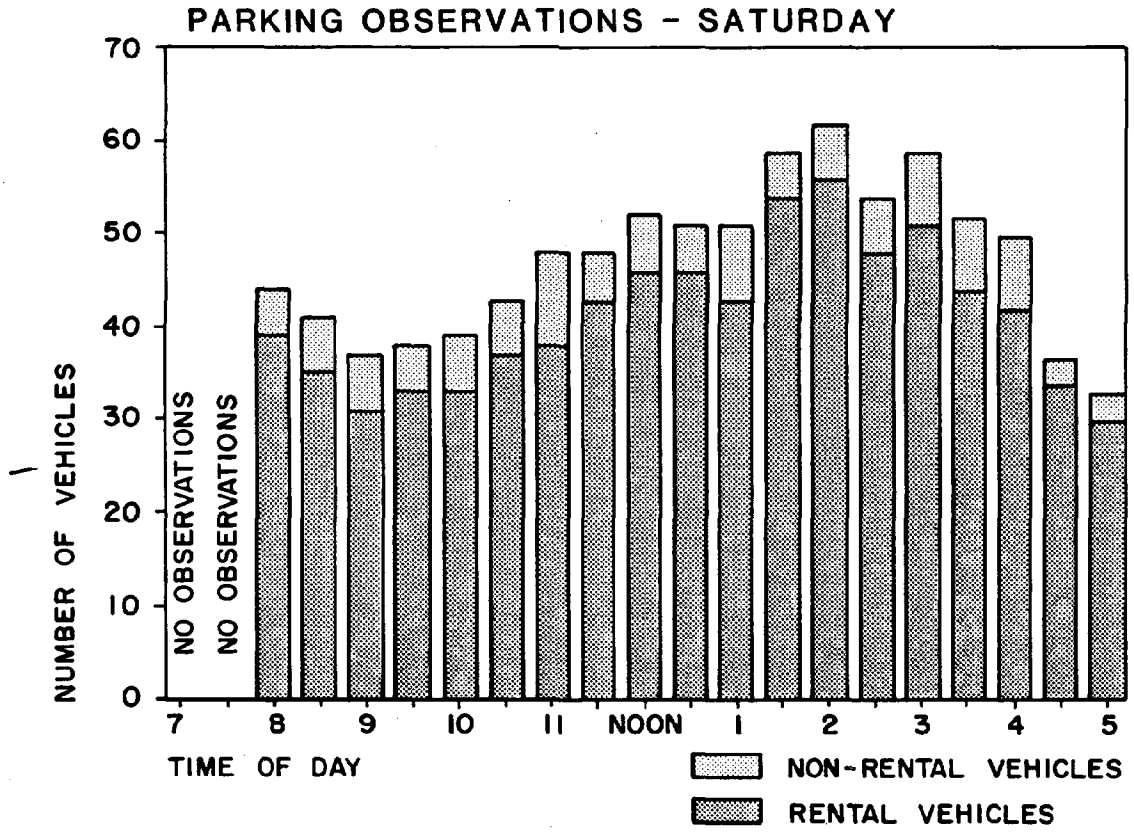
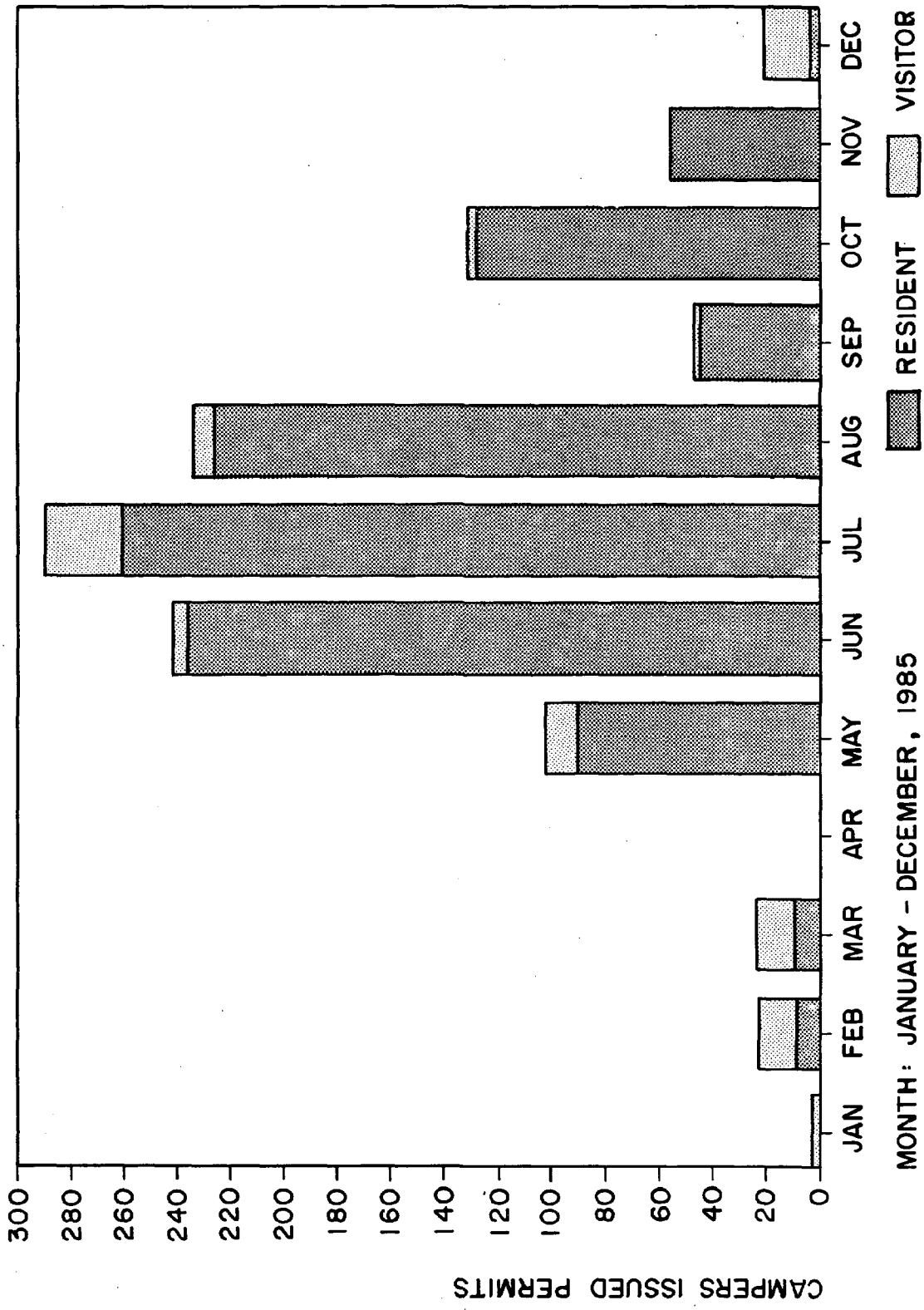




fig. 4 **BLACK POT PARK**




CAMPING DATA

fig. 5 BLACK POT PARK

Due to the restriction on weekday camping, almost all camping occurs on weekends and holidays. Although permit records indicate that a few campers were issued permits for weekday camping, they comprise only 2 percent of the total. Contrary to park rules and data on permit issuances, however, long-term camping during the summer months appears to be a regular occurrence. During a weekday site visit in June, 1986, there were four camps established. Residents in the vicinity of the Park report that some families camp at the Park during the entire summer. A county official reports that these campers refuse to apply for permits. Their presence in the Park suggests that the camping permit data for the summer months underestimates the volume of actual camping, especially during weekdays.

Since the late 1960's, Hanalei Bay has become a regular stopover for yachts that have participated in the semi-annual Transpac yacht race. Yachters moor in the Bay and come ashore in rafts, usually near the Wharf. They regularly use park facilities, including the showers, trash containers, parking lot and rest rooms. The boats arrive in July and generally stay for over a month. The next Transpac race is scheduled for 1987.

Within the past two years, the staging of commercial tour boat operations has become a major activity at the Park. These operations begin in April or May when seasonally rough northerly swells begin to subside, allowing boats to navigate safely along Kauai's North Shore to beaches, seacaves and snorkeling areas, many of which are otherwise inaccessible. These activities increase through early summer, peaking in June, July and August and taper off as rougher seas return.

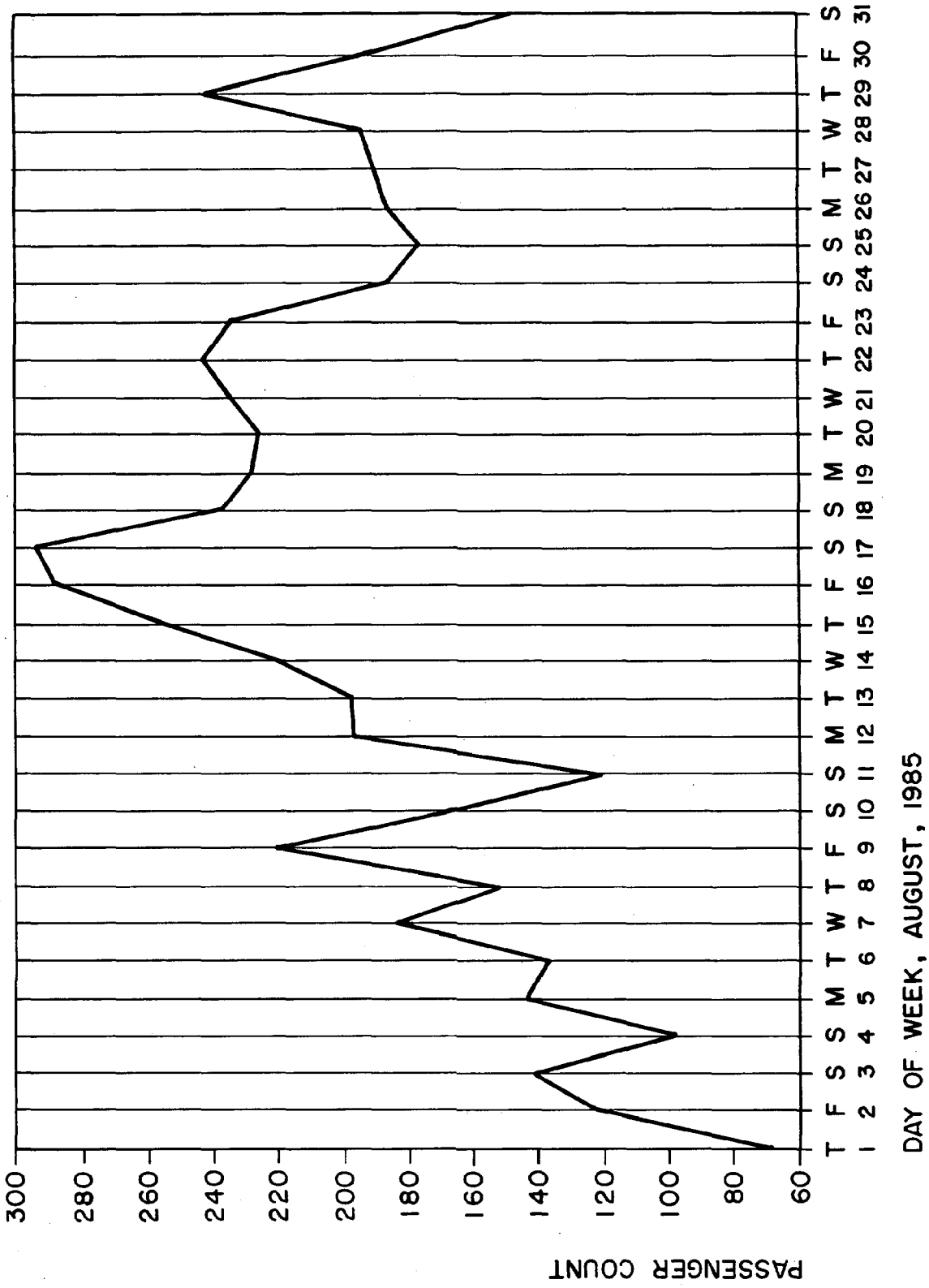
The tour boat companies use the Park area for various aspects of their operations. Those operating smaller boats, mostly Zodiac-type, inflatable craft, launch and land from the park area. Generally, this is accomplished at the river bank area when the river mouth is deep enough to traverse. Most of these companies also load and unload passengers in the same area, although one company conducts its passenger loading and unloading activities at Tunnels Beach, four miles to the west. The companies

operating larger hard-hull boats moor their craft in the designated mooring area to the west of the Hanalei Wharf and conduct their passenger loading and unloading at the boat ramp adjacent to the Wharf.

To monitor tour boat operations on the North Shore of Kauai, the Department of Land and Natural Resources established a permitting system in the summer of 1985. At that time, 20 permits were issued to various tour boat companies operating out of Black Pot Park. Aside from two kayak tours, the tour boat fleet consisted of 24 boats with a capacity of 251 passengers. Based on the maximum number of landings allowed, this fleet could have served up to 544 passengers a day. Actual landings and passenger loads, however, were considerably less. On the busiest day in August, 1985, the busiest month for which data is available, 19 boats made 29 landings to carry 295 passengers. See Figure 6. In 1986, the DLNR reissued permits for boating operations and increased the Black Pot Park fleet to 48 boats with a total passenger capacity of 472. Based on the maximum number of trips requested, the passenger carrying capacity of the expanded fleet is 1,110 passengers per day. On the busier of two days that commercial operations were observed at Black Pot Park, 266 passengers were served. Since the observations were made in mid-May, which is still early relative to the peak season, actual counts of passengers are expected to increase in subsequent months.

Weekday and Weekend Observations

Observations of day time park usage on a weekday (Thursday, May 15, 1986) and a weekend day (Saturday, May 7, 1986) indicated somewhat different activity patterns. The weekday observation indicated somewhat higher use by commercial tour boat operators than on the weekend, with a total of 266 passengers loaded on Thursday and 191 on Saturday. Daily landing reports from August, 1985, however, suggest that this is not a significant pattern. In fact, the highest passenger load for the month was achieved on a Saturday. See Figure 6.



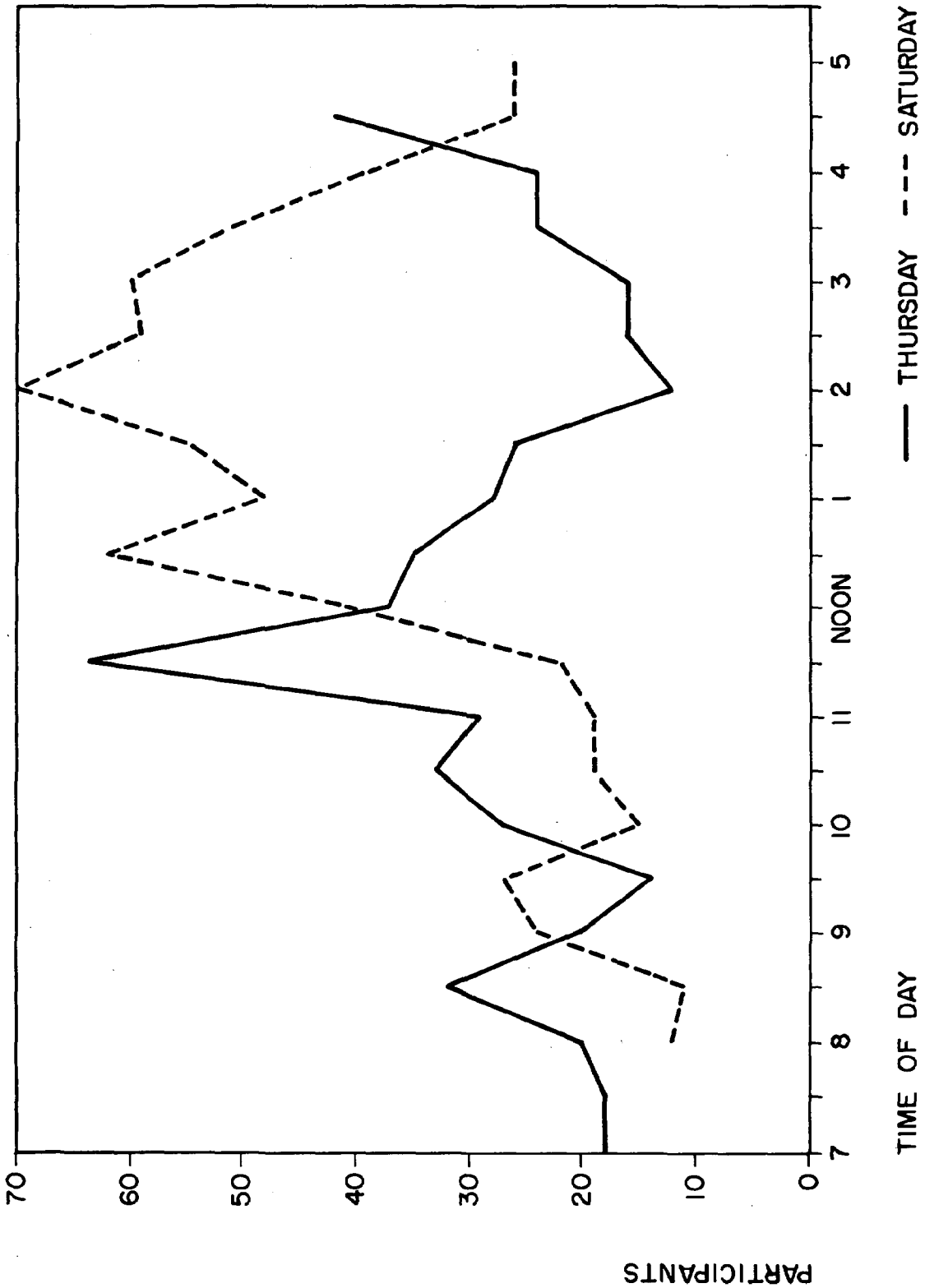

COMMERCIAL BOATING DATA

fig. 6 **BLACK POT PARK**

The observations also suggested that non-commercial use was heavier on the weekend than on the weekdays. A daily average of 36 non-commercial users was recorded in each of the half-hour observation intervals on Saturday, and 26 on Thursday. That this may be a pattern is supported by the record of camping permits issued in 1985.

The number of non-commercial park users observed in each of the half-hour intervals also reflected differences between the weekend and weekday. See Figure 7. While both days showed relatively similar use patterns in the morning, including a peak achieved around midday, afternoon use of the Park was significantly higher on the weekend. Another notable difference was that while afternoon use on the weekend declined as the day wore on, the weekday observation showed a decline followed by an increase in use beginning around 2:30 P.M. This increase continued to the end of the observation period at 4:30 P.M. Informal observations after that time to 7:00 P.M. suggested a continued increase in non-commercial park usage. This use if probably attributable to residents in the area arriving after working hours.

Consistent with the passive recreational theme of the Park, most of the activities were of a passive nature. Picnicking was the dominant activity, followed by sunbathing. The Park also serves as an informal gathering place for residents to socialize. The most popular area for impromptu gatherings was the Wharf and the adjoining corner of the Park. Camping was concentrated in the east corner where visitors to the camps came and went throughout the day, parking in a nearby sandy corner of the river bank. The camps were especially busy during meals, which contributed significantly to the picnic count. Sunbathers used the fronting beach, mostly on the northern side of the Wharf when the commercial boats were not actively being loaded or unloaded. When the commercial operations were on-going, the sunbathers were found further north or to the south of the Wharf. Shore fishing was almost exclusively confined to the length of the Wharf. Most of the swimming and wading occurred along the north side of the Wharf, although some swimming and wading, especially among children was




NON-COMMERCIAL RECREATION

fig. 7 BLACK POT PARK

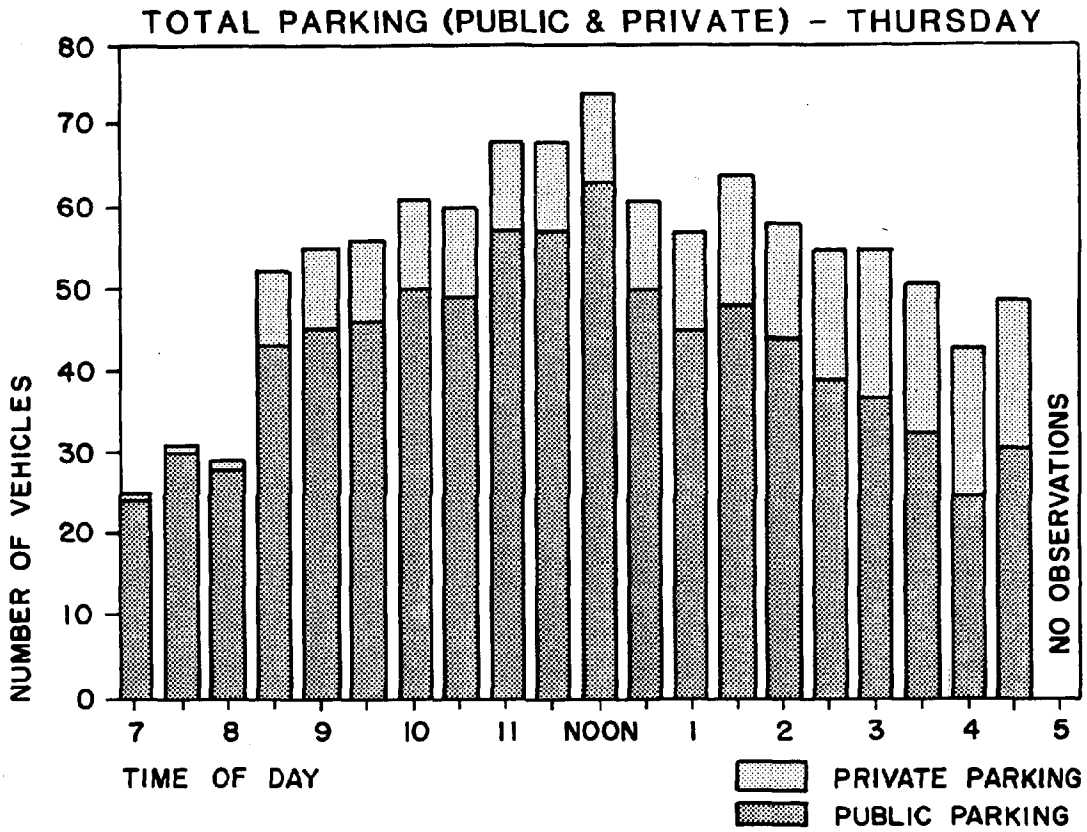
observed along the banks of the river. Many swimmers jumped or dove off the Wharf and swam ashore or climbed out on a ladder by the shed. The shallow water of the boat launching ramp next to the Wharf was especially popular among children after the commercial boating activities had subsided for the day.

Carrying Capacity

Carrying Capacity at Black Pot Park was assessed both quantitatively and qualitatively for various aspects of park use.

Parking - Parking problems at Black Pot Park were a major concern in the summer of 1985. At that time, it was reported that many clients of tour boat operators parked in the county parking lot, the area alongside the Hanalei Wharf and on the sandy river bank. The operators also reportedly parked their vehicles, including boat trailers, in these areas. The resulting congestion was a source of much public concern. This occurred in spite of restrictions included in the operator's permits that prohibited such parking.

During the recent survey of the Park, however, parking congestion was generally not evident. Two factors seem to have alleviated this problem. First, tour operators appear to be complying with the requirement that they shuttle their passengers to and from the Park. Only a few minor violations were witnessed. Second, a private landowner across Weke Road has opened his land for commercial tour boat parking. This parking area extends from Weke Road across the park entrance, mauka around the Hanalei Canoe Club parcel to a clearing upstream of the sandy river bank. The owner charges the tour boat operators a fee to use the clearing next to the river for parking their boat trailers, trucks and other commercial vehicles. Clients of the boat operators park in the lot off of Weke Road, displaying passes issued by the tour boat operators. Vehicles parked in the private parking areas accounted for approximately 20% the total number of vehicles in the public and private parking areas. See Figure 8. During the observation



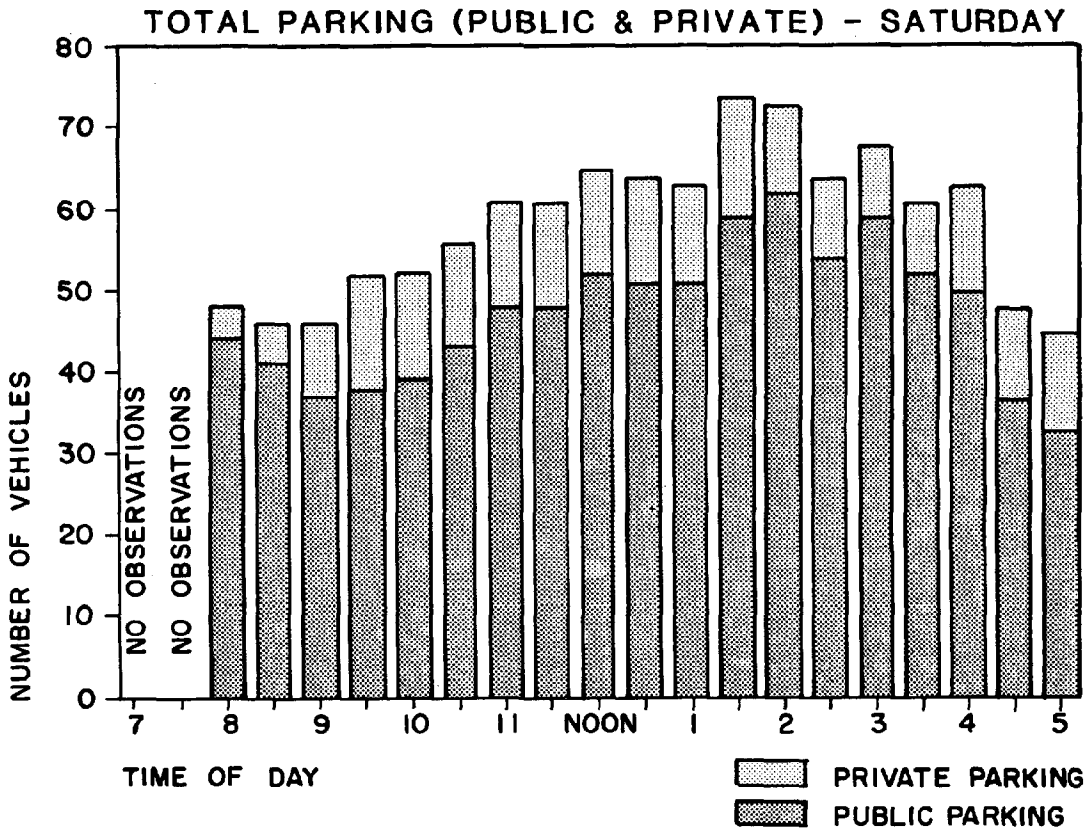




fig. 8 **BLACK POT PARK**

period, commercial operators generally limited their use of the parking area to dropping-off and picking-up passengers. This was usually accomplished in a few minutes by the larger companies since it appeared that boat and shuttle arrivals were coordinated via radio, thus avoiding significant waiting periods.

Although parking was generally available throughout the day in the county parking lot and on the river bank, the area alongside the Hanalei Wharf was frequently congested with parked cars, trucks and boat trailers. The impact of these vehicles on boat launching, fueling and passenger loading will be discussed further in conjunction with the capacities of the State boat launching ramp.

County Boat Launching Ramp - The County owns the boat launching ramp at the end of Weke Road. The ramp is currently covered by accreted sand and, consequently, serves as a driveway to the large sandy area formed along the river bank. See Figure 2. The sandy area is the primary boat launching site for vessels capable of clearing the shallow sandy bottom at the river mouth. The advantage of launching boats at this site is that several boats can be launched simultaneously along the riverbank. A major disadvantage, however, is that during periods of heavy wave action, the river mouth can become clogged with sand. During such times even boats with shallow drafts cannot exit to the sea, particularly at low tide.

On the weekday observation (Thursday, May 15, 1986), which was the busier of the two days for commercial tour operators, 26 launches were made from the river bank area. Fourteen of these were commercial tour launches, including 12 Zodiac-type inflatable craft, one hard-hull boat and a group of three kayaks (counted as a single commercial launch). Commercial fishing vessels launched during the observation period included four hard-hull boats, a canoe, a kayak and a sailboat. Also launched were a County of Kauai Fire Department rescue vessel, which is a Zodiac-type inflatable craft, and a similar private tour craft that assisted the Fire Department.

The busiest period for launches was between 7:30 and 9:00 A.M. when the 12 commercial tour craft were launched. Most of these vessels were launched relatively quickly, with the trailer in the launch area between one and three minutes. Passenger loading of the boats took longer, however, averaging 21 minutes after the launch to await and load clients and depart from the area by sea. Even during the most intense launching period, however, the capacity of the area to accommodate additional boats was not exceeded. No line of boats awaiting their turn to launch was formed.

In the afternoon, unloading and reloading of passengers and boat landings were conducted over a broader span of time and did not achieve the intensity of activity characterizing the morning launches.

State Boat Launching Ramp - The roadway along the side of the Hanalei Wharf is owned by the State Department of Transportation, and is used as a boat launching ramp. Although only one boat can be launched at a time from this ramp, there are no shallows to hamper passage to the sea. When the river mouth is choked with sand and during extremely low tides, this is the only place available on the North Shore to launch boats west of Anini Beach Park.

A serious limitation to the capacity of this launching ramp is the general congestion that surrounds it. By early morning, commercial and recreational fishermen who launch their boats from this site often park their cars, trucks and trailers in the immediate vicinity of the ramp. This limits the space available for subsequent boaters to maneuver their trucks and trailers. Fuel trailers use the ramp to refuel larger tour boats and are sometimes left in the area awaiting those boats. The ramp is also used by commercial boat tour operations for loading and unloading passengers. On the larger boats, as many as 40 passengers may use the ramp. These passengers are brought in and out by shuttle vans that stop on the approach to the ramp while loading or unloading. The larger tour boats also use the launch ramp area for loading food and beverages, filling water tanks, and cleaning up after tours.

Rest Rooms/Cesspools and Shower - During the observation period, the rest rooms remained in adequate condition throughout the day and no indication of cesspool overflow was observed. The shower area occasionally flooded during periods of heavy use, with drainage overflowing on the adjacent launch ramp. Due to the close proximity of the rest rooms and showers to the passenger loading area near the Wharf, occasional use by passengers of commercial tours was noted. In most instances, however, the relatively prompt movement of passengers from the shuttles to the boat and back into the shuttles by the larger boat operators limited such use. It seems reasonable to expect that as the rate of commercial tours increases, the frequency of rest room and shower use will also increase, particularly if congestion delays passenger movement between the boats and shuttles. If the river bank launching area is rendered unusable by sand clogging the river mouth, even greater congestion and delay can be expected. The use load on the rest room and showers would likely be aggravated when the Transpac vessels are moored in the Bay. Park maintenance personnel report that rest room facilities have been abused during such times by persons emptying, sometimes carelessly, their marine sanitation devices into the park toilets. In July, 1985, during the time when Transpac vessels were moored in the Bay, the park cesspool was pumped-out three times.

Water/Electricity - Excepting rest room and shower use, the greatest consumption of water observed at the Park was by the commercial tour boat operators. Although their revocable permits specifically prohibit such use, several violations were witnessed. Operators of larger boats moored next to the Wharf hooked up garden hoses to the park hose bibs and filled water tanks on board prior to departure. After the tour, the garden hoses were reconnected and the boats were extensively rinsed. On the second day of observation, perhaps aware that they were being observed, the operators did not connect the garden hoses but, instead, filled plastic water containers at the hose bib. In the afternoon, only one of the larger boats connected a hose for extensive rinsing.

At the hose bib located near the county boat trailer parking area, three Zodiac-type tour boat operators rinsed their trailers after launching their boats on the first morning of observation. The washdowns averaged six minutes. In the afternoon, perhaps aware that they were being observed, only one company rinsed its boat after landing. Previous reports by residents indicated that most boats landing in the area were rinsed using the county hose bib. On the second day of observation, none of the trailers were rinsed after the morning launches but in the afternoon, two companies rinsed their boats, one for almost a half-hour and the other for six minutes.

The use of county water at the launch ramp sites is an issue from the cost and water conservation standpoint. From the cost standpoint, there are those who would argue that commercial operators should pay for the water they use. The water conservation viewpoint suggests that the boats should be restricted from washing down to conserve the limited fresh water resources of the area. The County of Kauai Water Department reports, however, that the water supply of the area is adequate to serve development projected for the next five years, although the pipe serving the Park may need to be upgraded to accommodate heavier usage. Another aspect of washing down commercial boats is that is makes their presence in the Park more conspicuous. This may be perceived as adding to the intensity of activity in the Park.

No electrical usage was observed during the survey. Park maintenance personnel, however, reported that when the boats from the Transpac yacht race are moored in the Bay, the electrical sockets in the rest room are occasionally tapped for operating power tools to make repairs.

Other Park Facilities - Other park facilities such as picnic tables, barbecue and sinks were used primarily by the general public although the picnic tables near the Wharf were used for temporary placement of food and beverages and other items being loaded or unloaded from commercial tour boats. The tables in the northern corner of the Park appear to be used for

extended periods by campers. Long-term campers could conceivably occupy tables that would otherwise accommodate picnickers and other campers.

County Park Lands - A major impact of using the Park as a passenger terminal for commercial boat operations is that it intensifies occupation of the Park, regardless of whether park facilities are used. This impact was minimized to some extent by the generally prompt movement of passengers from shuttles to the boats and back into the shuttles by the larger tour boat companies. Thus, large groups of people were not left to wait in the Park. Several smaller groups, however, were occasionally observed waiting for their turn to board the boat or shuttle. Park occupation will be intensified as passenger loading and unloading traffic increases during the peak season, and particularly if the river bank launch area should become unusable when the river mouth shallows.

The other conspicuous occupants of park land are the long-term campers. While their numbers and the space occupied by their tents is not substantial at present, a significant increase would further reduce the available park space and increase the base-line usage of park facilities throughout the summer.

Noise - While approaching or leaving the launch area, boats create noise that may be perceived as a nuisance, particularly if many boats are involved or if the activity is conducted over an extended period of time. In the Wharf area, boating could affect the enjoyment of walking, sightseeing and fishing; boating in the river mouth could similarly affect campers and picnickers in the nearby corner of the Park. Although a technical noise study was not conducted, it was noted during the observation that annoying levels were not achieved. Nevertheless, the perception of acceptable noise levels in a passive park setting is highly subjective and even low levels of noise could be perceived as annoying by some.

The perception of noise would probably be greatest when non-commercial use of the Park is intense, such as on weekends and on weekdays in the later afternoons, when community use of the Park increases.

Boat Traffic - Potential conflicts among boats and other activities at the Park may result from the increased waterborne traffic in the area. As boat traffic increases during the summer months, the potential for conflicts with activities such as swimming and fishing, particularly in the area near the Wharf will increase. The Wharf continues to be a favored area for jumping or diving into the Bay. The presence of boats in the vicinity of the Wharf creates a potentially hazardous situation. Fishing off of the Wharf is another favored activity. Boats crossing the area can snag lines or be perceived as scaring away the fish. The refueling of boats, while generally safe if basic precautions are followed, may unnecessarily expose the public to a potential hazard if conducted in areas where the public is likely to be present.

Water Quality - Concerns of water quality impacts have centered primarily upon boaters mooring in the Bay after the Transpac race. Reports of trash and fecal matter in the water have been reported regularly during such stays. Also observed was the washing of food service supplies in the water by one tour boat company. The State Department of Health, however, has not been able to attribute periodically high coliform counts in the water to other than runoff from streams.

When the tour boating operations at the Park began, some attention was directed to the potential for fuel spillage. While no spillage was witnessed during the observation period, numerous instances of fueling vessels in the water were observed. Refueling while boats are in the water is prohibited under conditions of the revocable permit. Consultation with the Marine Safety Office of the United States Coast Guard, however, indicates that should small amounts of gasoline be spilled

in the water, it will disperse over the surface and evaporate rapidly, particularly on sunny days. Hence, long-term residual effects on the environment are unlikely.

Rescue - Rescue needs along the North Shore have risen significantly as a result of increased boating activity, much of which can be attributed to commercial boat tours operating out of Black Pot Park. During each of the two days of observation, the County of Kauai Fire Department launched their rescue vessel from Black Pot Park. Currently, the Fire Department houses its "zodiac" at the Hanalei Station for quick response. Although the United States Coast Guard maintains two rescue vessels at Nawiliwili, their response time has generally been too slow to warrant Fire Department requests for assistance in North Shore rescues. Therefore, the Fire Department is, for all practical purposes, the sole public rescue service on the North Shore. Fortunately, the commercial boaters have generously volunteered assistance for rescue operations. The Fire Department's only rescue vessel, in fact, was donated by a tour boat operator.

In spite of the assistance provided by the commercial boat operators, maintenance of rescue capabilities commensurate with the present intensity of boating on the North Shore is a substantial public burden.

Lifeguard service is provided on weekends and appears to be adequate for the levels of activity occurring in the area. The lifeguard stand is on the Wharf, which facilitates monitoring of the entire beachfront area. The river area, however, is not visible from this point.

Police - The increased level of activity at Black Pot Park during the summer, much of which is the result of commercial boating operations, has increased needs for surveillance and other police services. While these additional requirements have not critically overburdened the County of Kauai Police Department's available manpower capabilities, they have added to the overall workload.

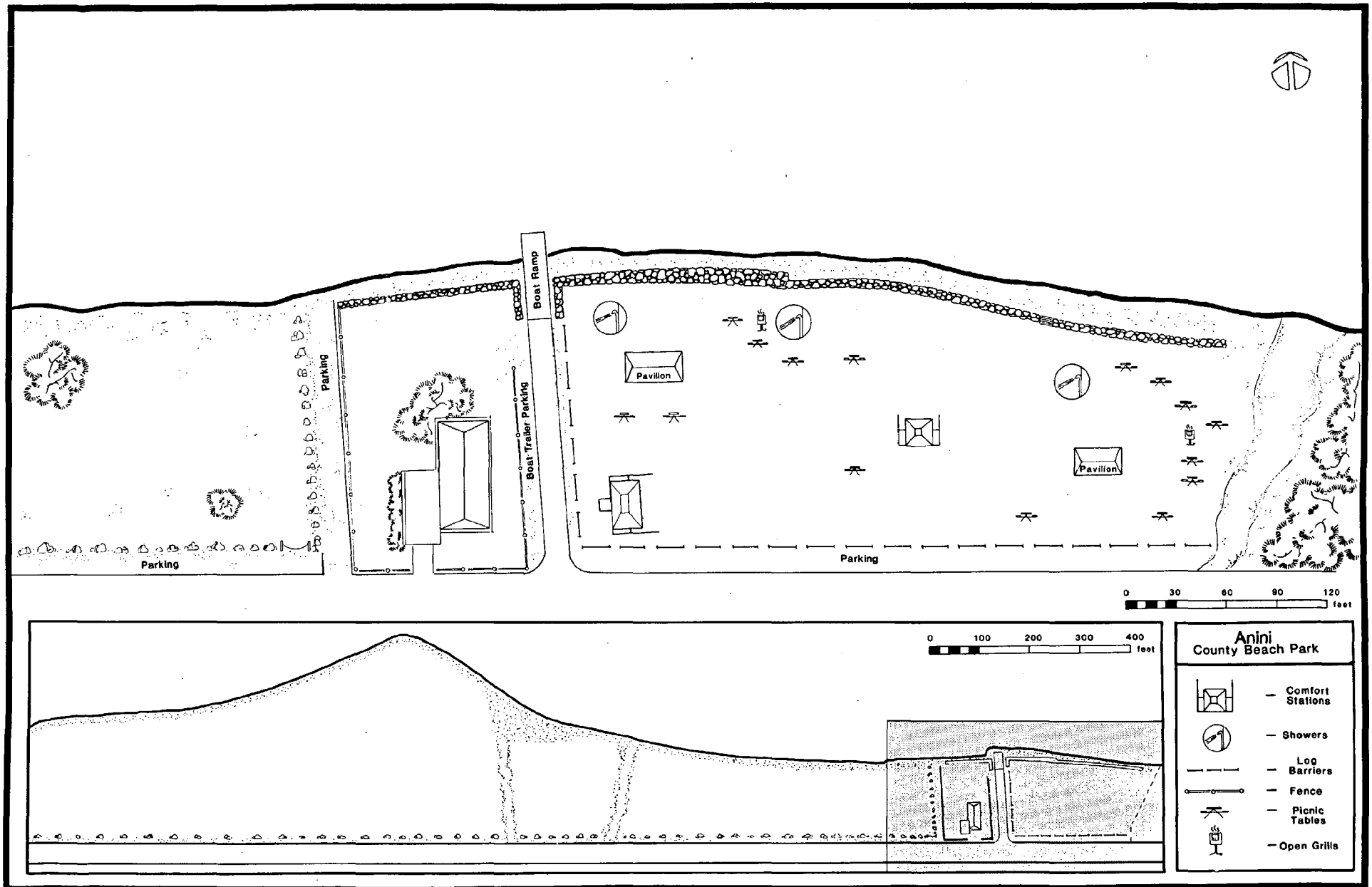
## B. ANINI BEACH PARK

### Description

Anini Beach Park is located west of Kalihiwai Bay along a sandy stretch of beach on the east side of Honu point. Although the fronting beach is actually Kalihikai Beach, both the Park and the Beach are referred to locally as Anini. Anini Beach is actually located further west, beyond Honono Point.

Of a linear configuration and squeezed between Anini Road to the south and the shoreline to the north, this 12 acre park is owned and maintained by the County of Kauai as a passive recreational area providing opportunities for picnicking, camping, boat launching, fishing, sunbathing and swimming. See Figure 9. The Park may be reached from Kuhio Highway by taking Kalihiwai Road and then Anini Road, which extends along the base of the Kalihikai bluffs. Undeveloped private lands flank the eastern and western borders of the Park and the lands across Anini Road are in pasture and contain a few residences.

Development of the present park was accomplished in two phases. The original park site was just over one acre and now forms the eastern portion of the present facility. Prior to the County's acquisition of the western portion, an adjoining private landowner fenced his parcel and subsequently constructed a single-family dwelling which now separates the two portions of the Park. The older eastern portion of the Park contains a County boat launching ramp adjacent to the private dwelling, two sets of rest room facilities, showers, picnic tables, cooking grills, trash containers and an outdoor sink. A parking area providing perpendicular parking off of the access road is available along the length of both portions of the Park. The newer 11 acre western portion of the Park has been cleared of




COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 9 ANINI BEACH PARK EXISTING FACILITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.

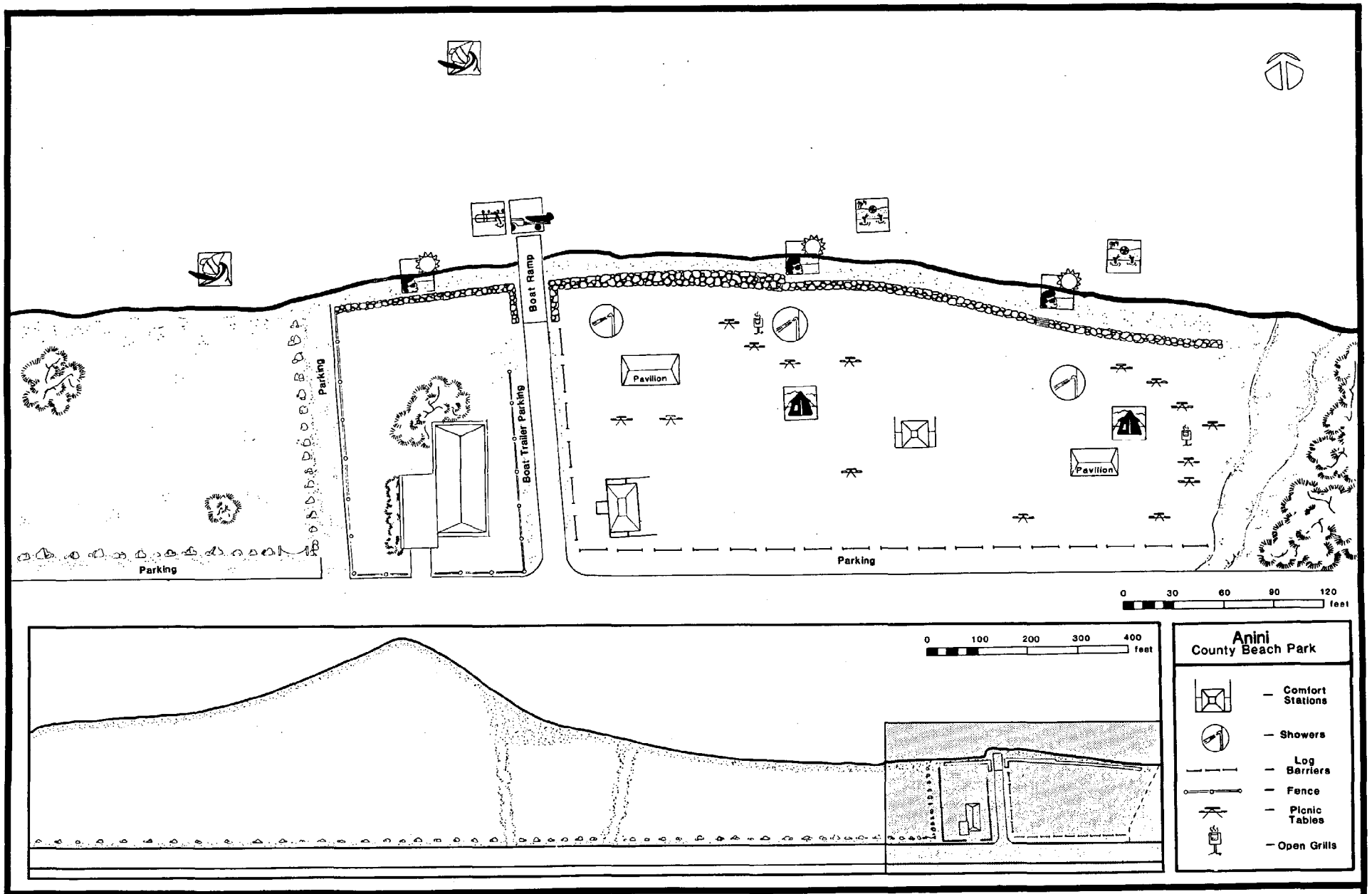
vegetation and planted in grass. This portion is undeveloped except for the parking area along the road and a driveway at the western edge of the private dwelling.

Park Users

Much of Anini Beach Park's recreational appeal derives from the broad reef that extends a third of a mile seaward from the Park. The reef is a rich fishery resource offering diverse recreational, subsistence and commercial fishing opportunities such as lay netting, throw netting, squidding, pole fishing, diving, torching and shell collecting. See Figure 10. The reef also calms nearshore waters, creating safe swimming areas for nearly a mile along the stretch of sandy beach from Honu Point on the east to Ka Lae o Kowali on the west. Anini Beach Park fronts almost half of that length, providing access to the fishery resources as well as to sunbathing and swimming areas on the beach. Recently, windsurfers have found the steady summer trade winds and expanse of calm water to be ideal for their sport, particularly among novices.

Anini Beach Park is perhaps best known as a camping area. Since camping is permitted throughout the week, the total number of campers it serves is greater than at Black Pot Park where only weekend camping is allowed. In 1985, 5,572 campers were issued camping permits for Anini Beach Park. By comparison 1,346 campers were issued permits at Black Pot Park.

Of those camping at Anini Beach Park, 85% were residents of the State. See Figure 11. Several differences in camping patterns between residents and visitors were evident in the permit records. Characteristically, visitors tended to camp in smaller groups, with many in groups of two while it was common for residents to camp in groups of six to ten. Organized groups with 30 or more campers were almost exclusively residents, and included youth groups supervised by adults.



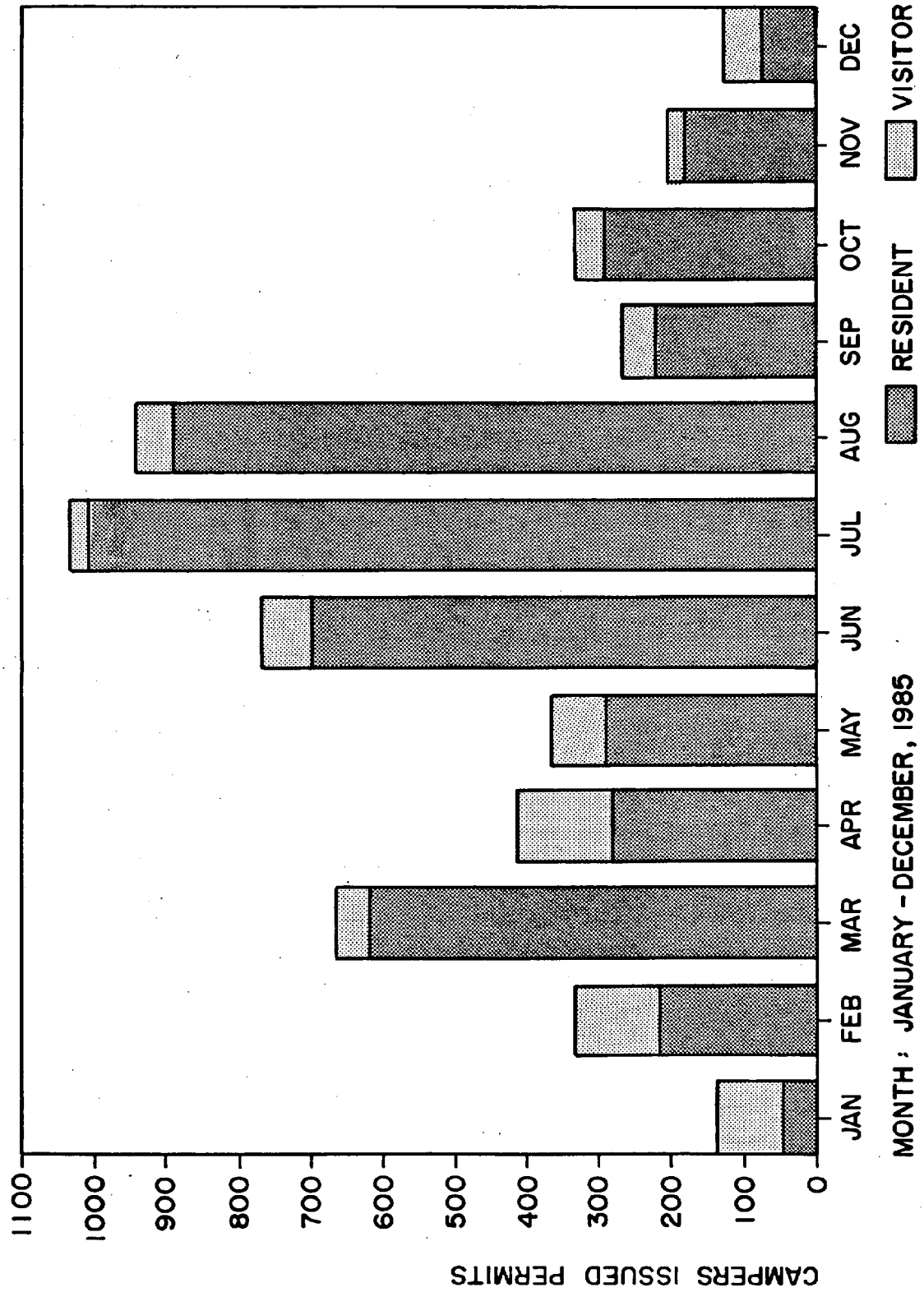

COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 10 ANINI BEACH PARK RECREATIONAL ACTIVITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.




CAMPING DATA

fig. 11 ANINI BEACH PARK

The summer months, June, July and August were the peak months for camping with total counts of 768, 1,034 and 939, respectively. See Figure 11. With respect to camping on weekends and holidays versus weekdays, it appears that visitors tended to favor weekdays slightly, while residents markedly preferred weekends and holidays. The overall yearly average for visitors showed 2.3 campers per day on weekdays and 1.6 on weekends and holidays. By contrast, residents averaged 8.9 campers on weekdays and 19.1 on weekends and holidays. In the summer months, the daily resident counts jumped significantly, with respective weekday and weekend averages of 19.3 and 31.3 for June, 27.6 and 44.6 in July and 22.5 and 39.8 in August. In this assessment, weekends and holidays were counted by the eve of the weekend or holiday, thus, the typical weekend began on Friday and ended on Saturday. Holidays were counted on the preceding day.

Three day weekends were especially popular among residents. On several such weekends, many campers extended their stay into the week, escalating the weekday count. Notably, the highest single day camper count of 104, including 100 residents and four visitors, was achieved on a weekday following the three-day Admission Day weekend. The count was recorded on Sunday, August 18, which was considered a weekday since the following Monday was a working day. The preceding Thursday, Friday and Saturday recorded counts of 77, 102 and 94, respectively, all residents.

Within the past few years, windsurfing has become a popular activity at Anini Beach Park. Several factors appear to draw windsurfers to this site. In addition to consistent trade winds and the expanse of calm water mentioned earlier, the Park facilitates access to the shoreline. Both the boat launching ramp and the driveway adjacent to the west side of the private dwelling allow windsurfers to transport their equipment directly to the shoreline. The Park also provides parking, showers, rest rooms and other support facilities. With the growing popularity of windsurfing there has been a concomitant public interest in learning to windsurf. Several commercial windsurfing instructors now offer lessons at the Park. Their primary clients are visitors.

The waters fronting the Park are regarded as ideal for beginning windsurfers. Generally calm and free of obstructions, the area receives consistent onshore breezes, assuring that novices are blown shoreward should they encounter difficulty. Commercial windsurfing instructors generally use the western portion of the Park as an access point to the shoreline, a site for shoreside instructions, and for parking their vehicles and those of the clients who have arranged to meet them there. Some commercial windsurfing instructors include a picnic lunch as part of their service. While in the water, novice windsurfers generally limit their range to the nearshore area.

The number of commercial tour boats operating out of Anini Beach Park is relatively insignificant in comparison to Black Pot Park which is four miles closer to visitor attractions along the Na Pali Coast. Currently, there are four active permits for commercial boating operations at Anini Beach Park, covering three tour boats and one kayak tour operating six kayaks. The maximum number of passengers that can be served per day, based on permit allowances is 96. By comparison, Black Pot Park has a capacity of 624. Actual passenger counts at Anini Beach Park are likely to be considerably lower than allowed by the permits although no figures were available.

Weekday and Weekend Observations

Observations of day use of Anini Beach Park were conducted on a weekday (Friday, May 16, 1986) and a weekend day (Sunday, May 18, 1986). Generally, non-commercial use of the Park was comparable to levels achieved at Black Pot Park.

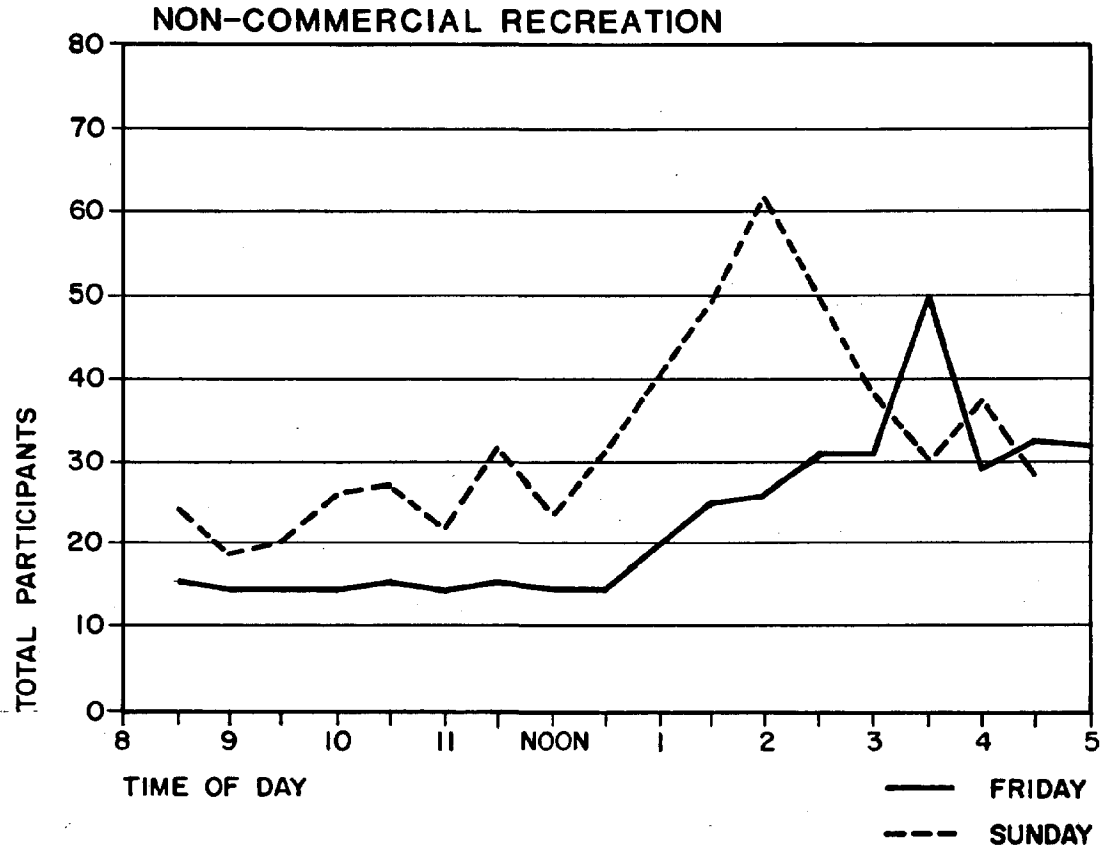
Comparisons of the weekday and weekend day activity levels at Anini Beach Park indicate different use patterns. Non-commercial park use on Sunday was generally greater than on Friday. On Sunday, non-commercial activities gradually increased through the morning and early afternoon, to a peak of 60 participants at the 2:00 P.M. observation, followed by a general decline

through the rest of the day. See Figure 12. The Friday count of non-commercial participants was level throughout the morning, comprised of more than a dozen campers and a few park visitors. A peak of 50 was achieved at 3:30 P.M. At Black Pot Park, a similar late afternoon increase on the Thursday observation was attributed to residents arriving after working hours. Since the Anini Beach Park observation was conducted on a Friday, however, this increase may also be a result of persons enjoying the beginning of the weekend and campers arriving for the weekend. No observations were conducted earlier in the week to determine if park use regularly increased after working hours.

The most popular non-commercial activity during the two days of observation were camping and picnicking. All camping and most picnicking occurred in the eastern portion of the Park, where facilities for both activities are located. Swimming and sunbathing occurred on the shore fronting both portions of the Park, although it was difficult to differentiate between those who were clients of commercial operators and those who were not.

Significant volumes of commercial activity were observed only on Friday when approximately 30 operators and clients were in the Park. The addition of these people to the non-commercial count more than doubled the level of activity for most of the time they were in the Park. See Figure 12. On Sunday, however, only about five people associated with commercial activities were observed.

The commercial activities were centered on windsurfing instruction although commercially organized snorkeling and picnicking were also observed on Friday. Most of the commercial activities occurred in the western portion of the Park, in the area adjacent to the private dwelling. Almost all of the windsurfers in the water on Friday were clients of the commercial instructors. Between 10 and 16 commercial windsurfing students were



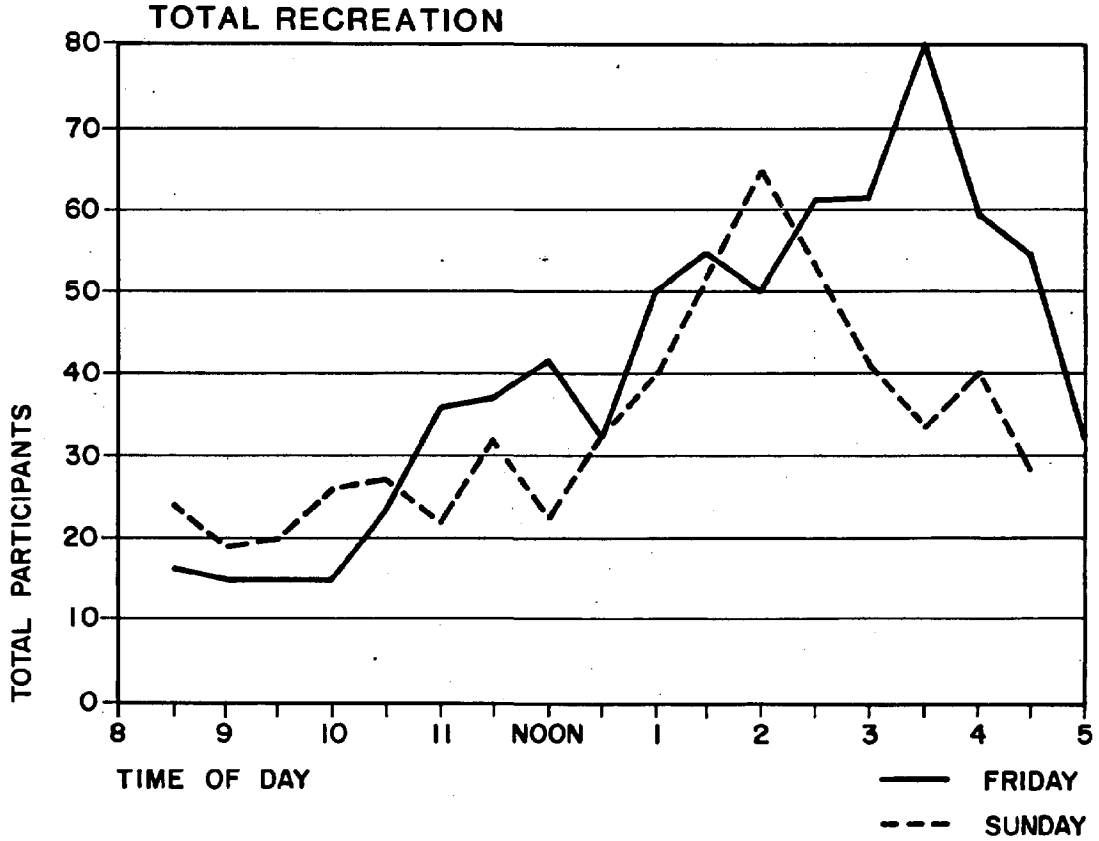




fig. 12 **ANINI BEACH PARK**

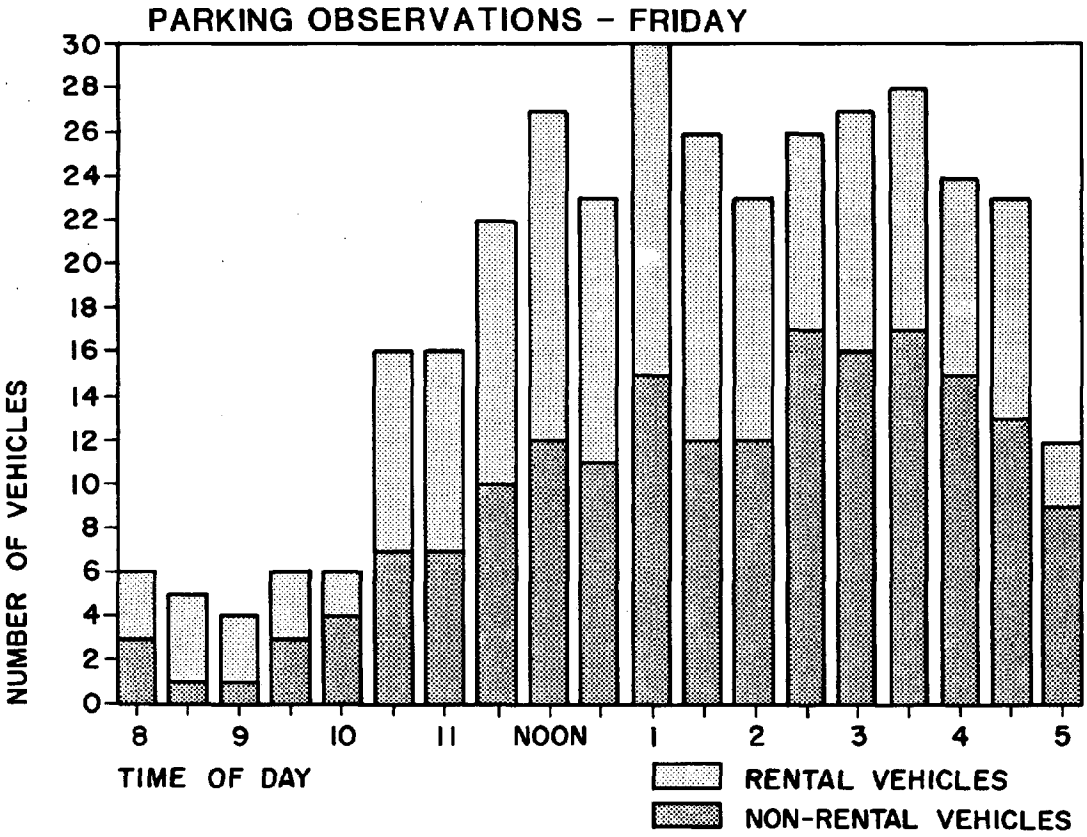
observed in the water throughout most of the day. While they tended to stay in the area west of the boat launching ramp, on seven different occasions as many as seven windsurfers were observed in front of the eastern portion of the Park. Shoreside lessons were conducted primarily in the western portion of the Park although on Friday, one group of four students was instructed on the beach fronting the eastern portion. Also on that day, a picnic lunch was served to a group of students at a table in the eastern portion of the Park. Snorkeling, offered in addition to windsurfing instruction by at least one commercial operator on Friday, occurred in the waters fronting the entire park but tended to favor the eastern portion, presumable to avoid conflict with windsurfers. On both days, windsurfing equipment, including sailboards and land simulators were frequently left unattended, primarily in the western portion of the Park and on the beach.

Parking data for Friday and Sunday indicated significant differences in volume. Comparisons between peak hours for each day showed almost twice as many vehicles were parked at Anini Beach Park on Friday. See Figure 13. A substantial portion of this difference may be attributable to commercial windsurfing operations, as suggested by the difference in the number of vehicles parked in the western portion of the Park between Friday and Sunday. See Figure 14. Most of the commercial windsurfing lessons are conducted in the western portion of the Park and the number of vehicles parked on this side is significantly greater on Friday when there were more lessons being conducted.

Carrying Capacity

Carrying capacities for various resources and facilities at Anini Beach Park were assessed both quantitatively and qualitatively.

Parking - Parking problems were a major concern in the summer of 1985. At that time, parking by various park users frequently exceeded capacities in



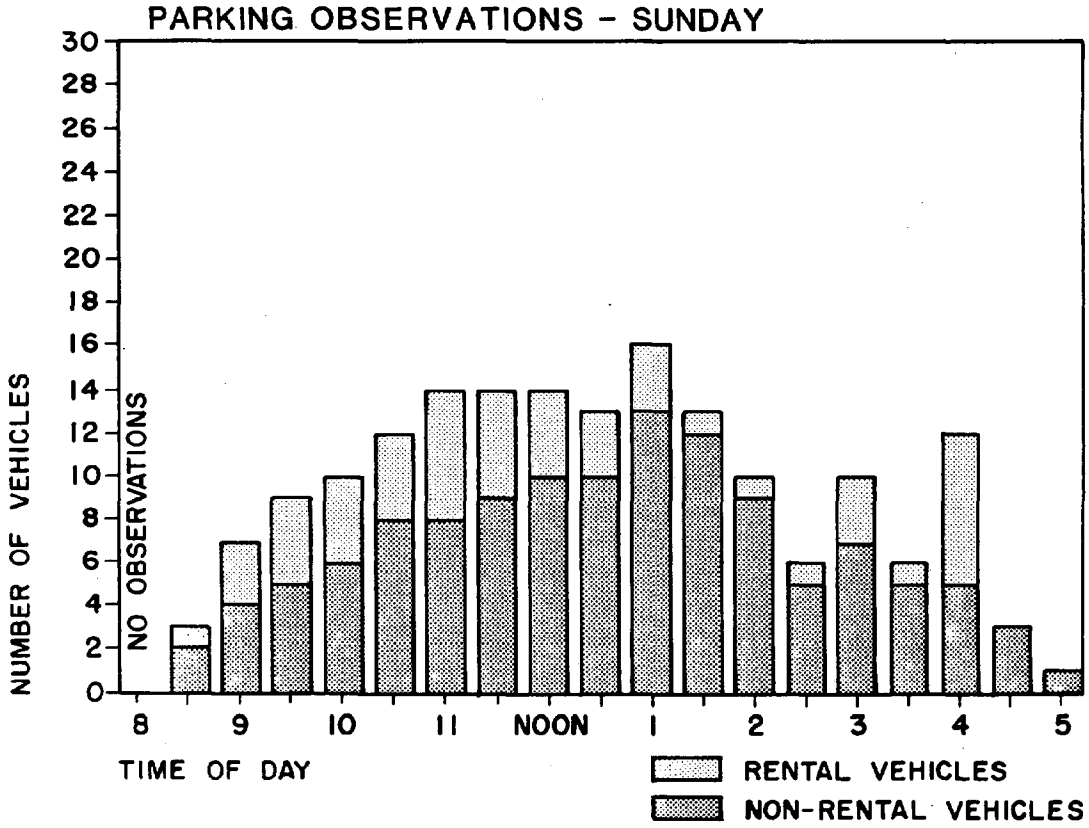
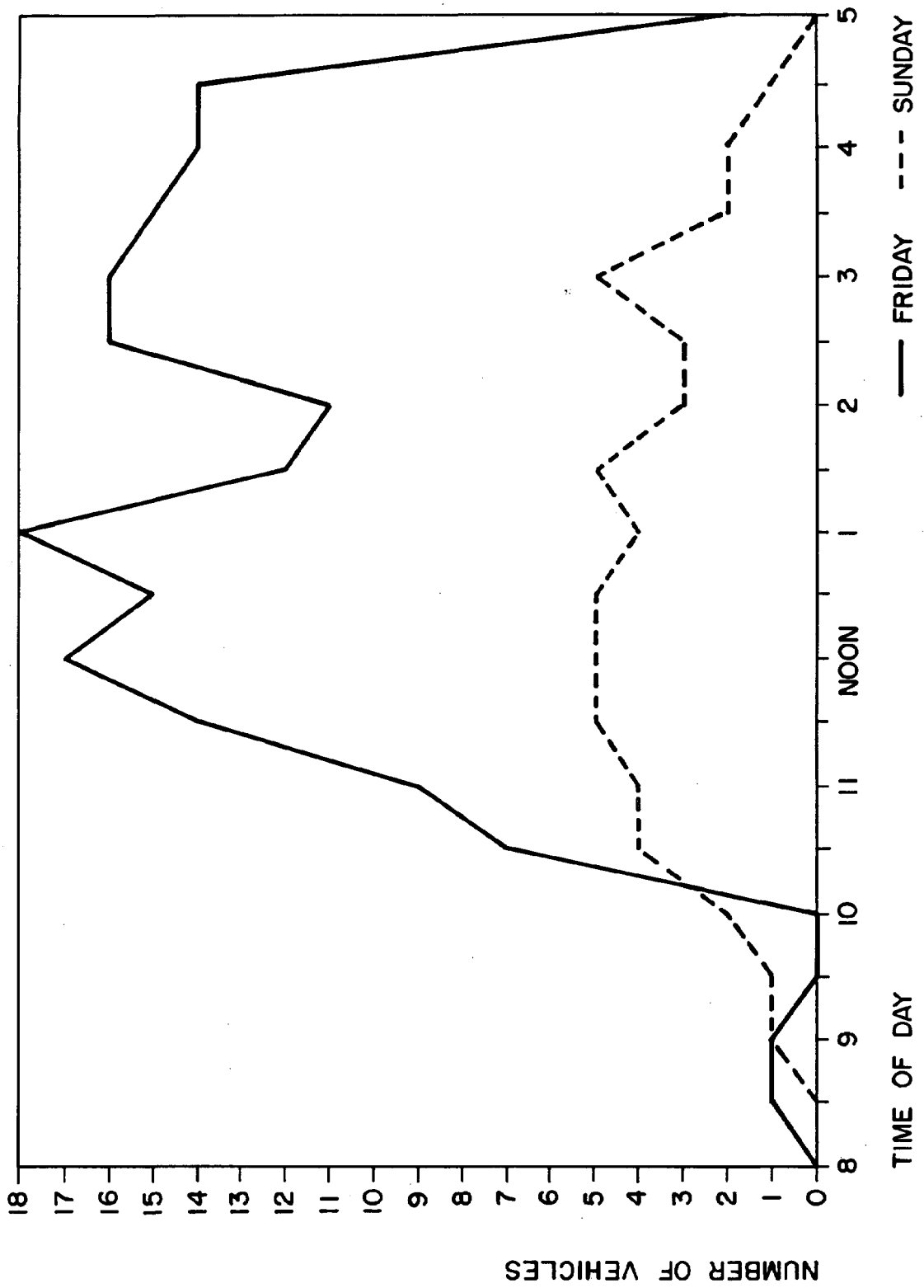




fig. 13 **ANINI BEACH PARK**




PARKING IN WESTERN PORTION

fig. 14 ANINI BEACH PARK

the Park and along the road. Much of the concern was directed at the commercial windsurfing operations which use the parking areas for their vehicles as well as those of their clients. Unlike commercial tour boat operators, the windsurfing instructors are currently unregulated and are, therefore, not prohibited from using the parking area. By adopting self-imposed regulations, however, the Kauai Windsurfing Association hopes to limit use of the parking areas by having commercial instructors shuttle their clients to and from the Park. During the Friday observation, one shuttle carrying ten passengers was noted; however, the volume of vehicles recorded in the western portion of the Park on that day strongly suggests that instructors and their clients still contribute significantly to the number of vehicles in the Park.

Whether or not parking will continue to be a problem this summer is uncertain. During the observation period, ample parking was available. Camping activity was light, however, with only 13 campers in the Park on the weekday and 10 on the weekend. During the 1985 summer months of June, July and August, the average number of campers on a weekday was 25.2 while the average for a weekend day was 39.3. Furthermore, daily counts in those months exceeded 100 campers on two days. At such levels of activity, parking may continue to be a problem even without additional stresses created by commercial windsurfing instruction.

Boat Launching Ramp - Use of the boat launching ramp on both days of observation was light. On Friday, only four launchings were observed, including one sailboat and three commercial fishing vessels. On the following Sunday, two launchings and three landings of fishing vessels were recorded. No commercial tour boating was observed.

Rest Rooms/Cesspools and Shower - Cesspool overflow is a problem at Anini Beach Park. Records indicate two requests for cesspool pumpage in July, 1985. On the Sunday observation, the newer rest room was closed in the

afternoon due to cesspool overflow. Since the Park is served by two rest rooms connected to different cesspools, one may be relied upon as a backup facility should the other fail.

Estimated cesspool standards indicate that the two cesspools at the Park should be able to accommodate 64 campers per day, or 310 day-use picnickers. Projections using a weekend average of 46 campers per day (based on camping data from July, 1985) indicate that an additional 92 day-uses/picnickers may be accommodated. Should the number of campers on any given day exceed 64, however, the cesspool system may be overloaded.

With respect to rest room maintenance, adequate cleanliness was maintained throughout the day of those available for use. Shower use was not particularly significant.

Water/Electricity - Aside from rest room and shower use, the heaviest water consumption observed was by commercial fishermen washing down their trailers and boats from hose bib provided for that purpose at the launch ramp. Commercial windsurfing instructors were not observed using the wash down facilities.

No electrical usage was observed.

Other Park Facilities - Currently only commercial tour boat operators are restricted from serving food or storing equipment on park premises. Commercial windsurfing instructors used park picnic tables for serving food and beverage and for storing clients' personal belongings. The Park premises, particularly the portion west of the boat launching ramp were freely used for storing equipment and giving instruction using windsurfing simulators.

Offshore Resources - Public concerns regarding offshore activities at Anini Beach Park center on recreational windsurfing as well as commercial windsurfing instruction. Historically, uses of the Park such as swimming,

fishing, skin diving, squidding, net laying, boating, and surfing tend to occur in zones that are physically separated or involve actions that do not conflict. For example, surfers gather where favorable waves break, swimmers tend to stay in calmer water, squidders seek shallow reefs and boats follow deeper channels. Although there are occasional conflicts among these activities, for example, boats sometimes traverse swimming areas when they launch or land, such conflicts have not been so significant as to create a safety hazard or longstanding disputes among participants. In many cases, informal courtesies have developed among traditional users so as to mitigate potential conflicts.

The relatively sudden appearance and rapid growth of windsurfing seems to have upset the traditional sharing of resources. The sailboard is a versatile craft that can enter a variety of ocean zones from relatively shallow reefs to breaking surf to deep ocean. It is a craft designed for continual movement, thus it requires a large practice area. Moreover, the windsurfer's skill is measured by his or her ability to venture into difficult areas such as breaking surf and the deep ocean. As a result, complaints of conflicts with windsurfers have been heard from diverse quarters. Swimmers complain of potentially hazardous collisions; while shore fishermen complain of snagged lines and the scaring of fish. Surfers fear collisions in an area they have long enjoyed exclusively. Even deep sea fishermen have reported hazardous conflicts with windsurfers who have crossed trolling lines.

Commercial windsurfing instruction requires less space than advanced recreational windsurfing since novices have yet to develop skills necessary to extend their speed and range. The shallow and calm nearshore waters in which they learn the sport, however, are frequently used for other activities. At Anini Beach Park, nearshore waters have traditionally been used for snorkeling, and swimming, particularly by beginners and children. Boaters and fishermen also use some of these areas. Concerns have been expressed about novice windsurfers who lack skills to maneuver safely among themselves and other users. During instructions observed on Friday, novice

windsurfers occupying the waters fronting the Park were judged to preclude safe participation in activities such as swimming and snorkeling or fishing during the entire 5-1/2 hours they were there. As mentioned previously, even the commercially organized snorkelers were kept away from the windsurfers.

In response to those who criticize their operations, windsurfing instructors argue that if they were restricted from the area, novices would rent sailboards and participate unsupervised. To address public concerns, the Kauai Windsurfing Association, represented by commercial windsurfing instructors, has adopted self-regulations governing the conduct of business within the Park, vehicle parking, storage of equipment, removal of trash, provision of instructions on how to avoid conflicts with other activities, certification of instructors, and the number of sailboards allowed in the water at any time.

Water Quality - State Department of Health officials indicate that the cesspool overflow problem does not affect water quality offshore of Anini Beach Park.

Rescue - Since commercial windsurfing instruction is conducted relatively near to shore and is well supervised, additional rescue needs are not anticipated. Recreational windsurfers venture further offshore, however, and may expose themselves to situations requiring rescue services. At least one rescue of a windsurfer on the North Shore has recently been reported. As the popularity of the sport increases, the need for additional rescue services is inevitable.

Police - The increased activity level at Anini Beach Park, much of which is associated with commercial windsurfing instruction, has required that police services for surveillance, parking monitoring be increased. While these additional requirements have not critically overburdened the County of Kauai Police Department's available manpower capabilities they have added to the overall workload.

## C. HAENA COUNTY PARK

### Description

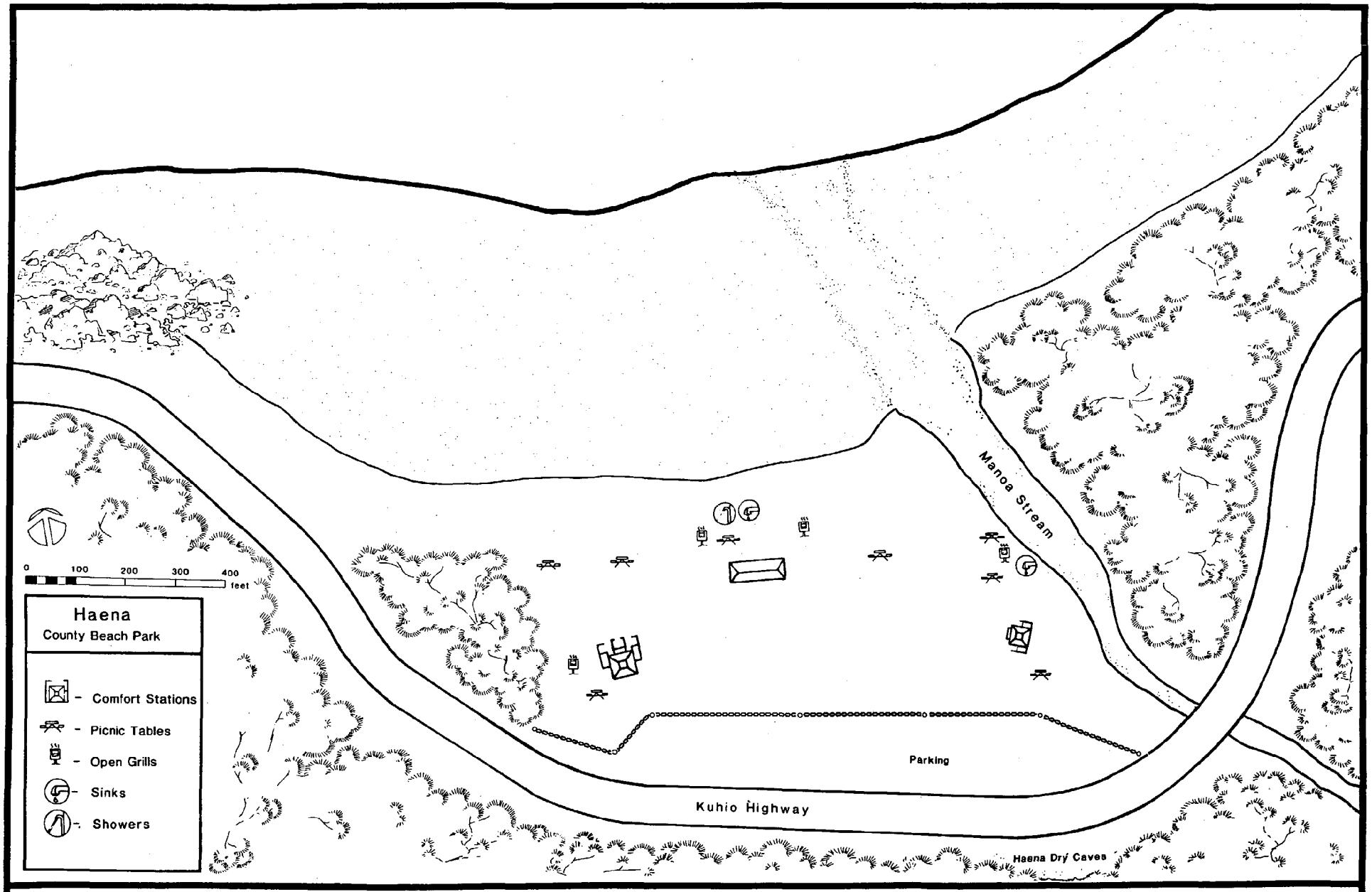
Haena County Park is located along the makai side of Kuhio Highway as it winds past Maniniholo Bay. See Figure 15. The Haena Dry Caves are located across the highway from the eastern end of the Park. The sandy beach fronting the Park extends east from rocky outcroppings on the western end at Kawaimakua, past Tunnels Beach, around Haena Point all the way to Wainiha Bay, a distance of 1.5 miles. The unpaved parking lot fronting the Park is accessible along its entire length from Kuhio Highway.

The 5.5 acre park is owned and maintained by the County of Kauai as a passive recreational area providing opportunities for picnicking, camping, sunbathing and seasonal swimming, surfing and body surfing. Due to the absence of any large reef offshore, the Beach is exposed to ocean swells. In the winter months these swells produce large shore breaking waves that are hazardous to inexperienced swimmers. Even in the summer, when seas are calmer along the shore, Haena Beach is exposed to occasional swells. Facilities available at the Park include two sets of rest room facilities, showers, picnic tables, cooking grills, trash containers and an outdoor sink.

### Park Use

The broad sandy beach fronting the park and is easily accessible from Kuhio Highway. Recreational opportunities offered include sunbathing, camping, picnicking, gathering, walking, swimming, snorkeling, surfing, and shoreline fishing. See Figure 16.

Commercial activity at the Park is limited to a lunch wagon that is parked daily in the parking area. The Park has also been suggested as a place to land commercial kayak tours upon completion of their one-way trips following the west bound ocean currents.



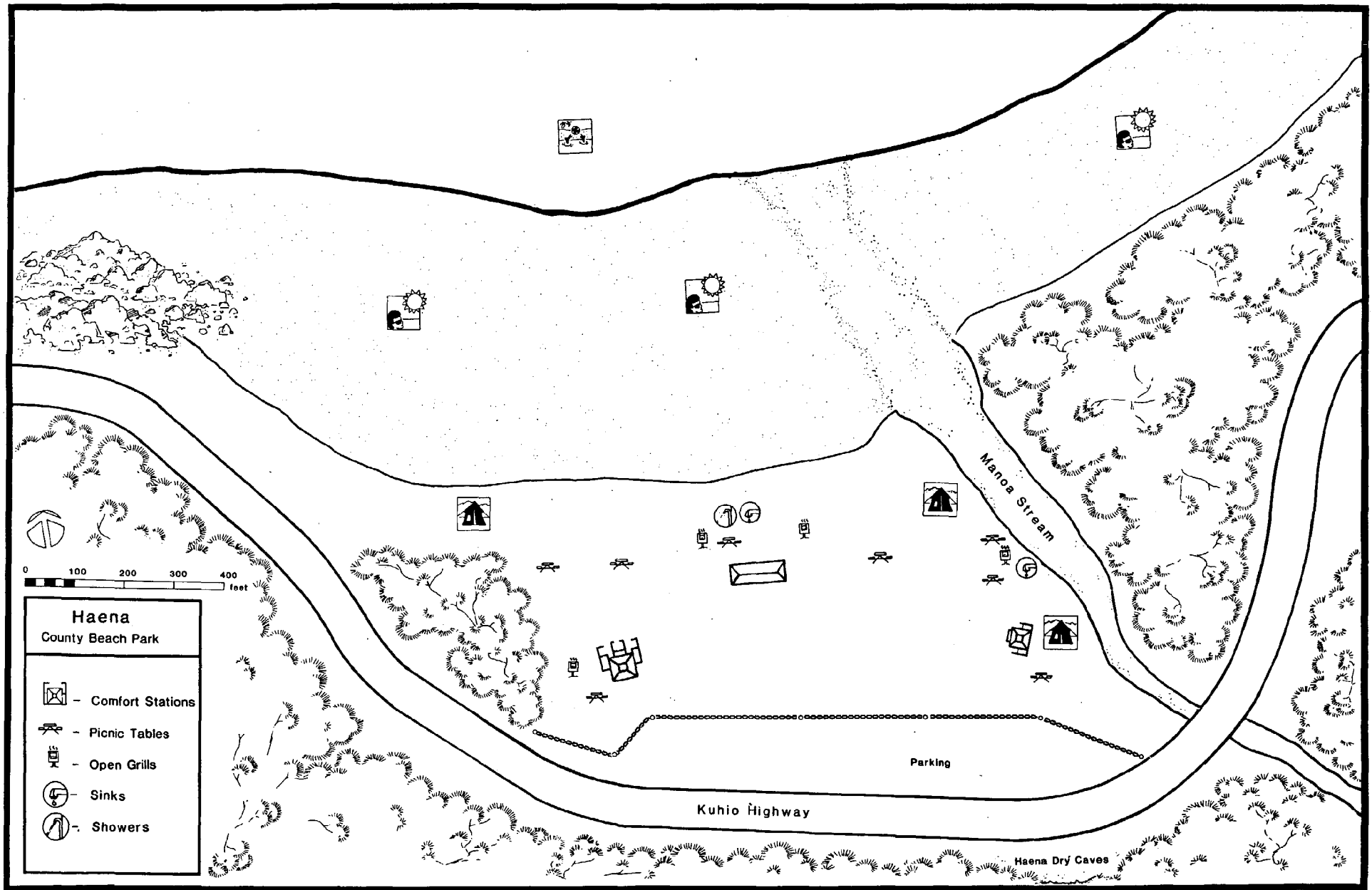

COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 15 HAENA COUNTY PARK EXISTING FACILITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.




COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 16 HAENA COUNTY PARK RECREATIONAL ACTIVITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.

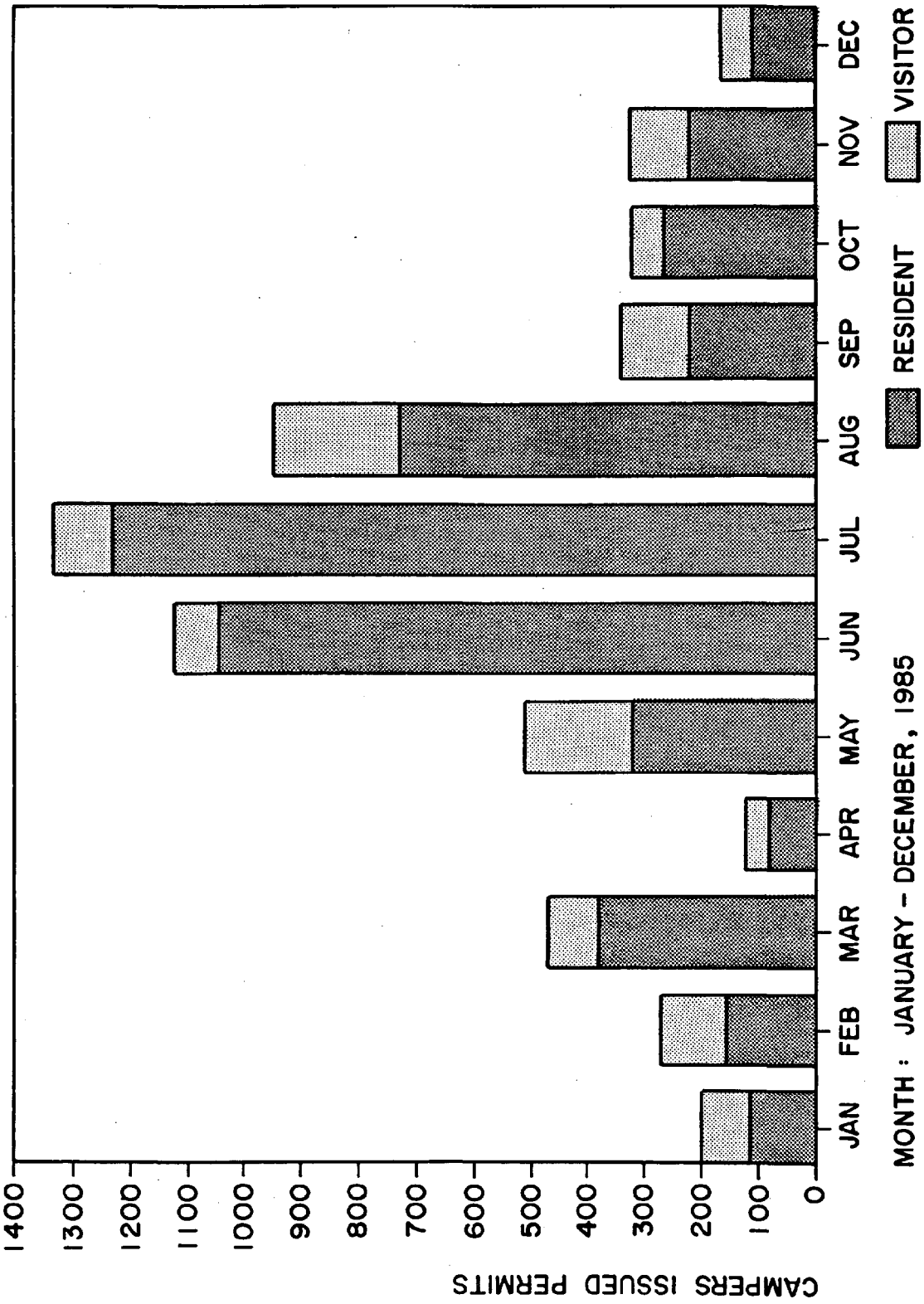
Haena County Park is a popular camping area with 6,144 campers receiving permits during 1985. By comparison, permits issued for Anini Beach Park covered 5,572 campers in 1985. Analysis of permits issued in 1985 reveal that the summer months June through August were the most popular for camping; 1,121 campers received permits in June; 1,335 campers received permits in July, and 945 campers received permits in August. See Figure 17. Of those who received permits, most were State residents. In 1985, 75.8% of those who received permits to camp at Haena County Park were residents.

Throughout 1985, visitor camping demand for permits remained fairly stable. Camper counts at Haena County Park reached a maximum of 37 on one weekend in late August and exceeded 15 campers only six times in that year. Most of the monthly differences in camper counts reflect differences in resident participation. Resident camping saw a low of 81 permits in April and a high of 1,228 permits in July. Camping by residents hit a peak on the weekends surrounding the fourth of July with an average of 80 campers per day.

Weekend rates for camping exceeded weekday rates for camping, with residents accounting for the vast majority of those camping on the weekends during the summer. In July, resident camping at Haena County Park averaged 58 persons per weekend day. In contrast, visitor camping for July averaged only 3 persons per weekend day.

Weekday and Weekend Observations

Park observations of parking and recreational activities were undertaken between 8:00 A.M. and 4:00 P.M. on Friday, May 16, 1986 and between 9:00




CAMPING DATA

fig. 17 HAENA COUNTY PARK

A.M. and 4:00 P.M. on Sunday, May 18, 1986. The major observed difference between the weekday and weekend day was that activity on the beach started earlier and was somewhat more intense on the weekend day than on the weekday. See Figure 18.

Picnicking, sunbathing and walking in the Park seemed to be the dominant recreational activities on both days, with most of the activity on both days occurring between 11:00 A.M. and 3:00 P.M. Generally, the level of activity was higher on the weekend, with 158 park users observed on Sunday in contrast to 90 park users observed on Friday. On both days there was a peak in activity in the early afternoon. There was a sharp peak at 1:00 P.M. on Sunday and a less pronounced one at the same time on Friday.

Beachcombing (counted as walking) and most sunbathing occurred on the beach, while the grassy park areas accommodated picnicking and camping. Tents were clustered near the sand on either ends of the Park, to be closer to the rest rooms. Frequently, visitors on sightseeing tours in rental cars used the Park as a rest stop and were seen strolling between the beach and the parking area.

Due to its conspicuous location along the heavily traveled Kuhio Highway, and the sightseeing attraction of the Haena Dry Caves, incidental use of the Park by visitors is significant. See Figure 19. Of the 78 cars observed in the parking area on Friday, almost 80% were rental cars. Of these rental cars, more than 85% were noted in only one hourly observation. It is also likely that a substantial number of cars visited the Park for a short time between observations and were not counted at all. Non-rental cars showed a similar pattern. Of the 17 cars observed, 13 were only sighted once.

The weekend count on the following Sunday recorded more cars overall, with a total of 110 different cars, and a smaller proportion of rental cars,

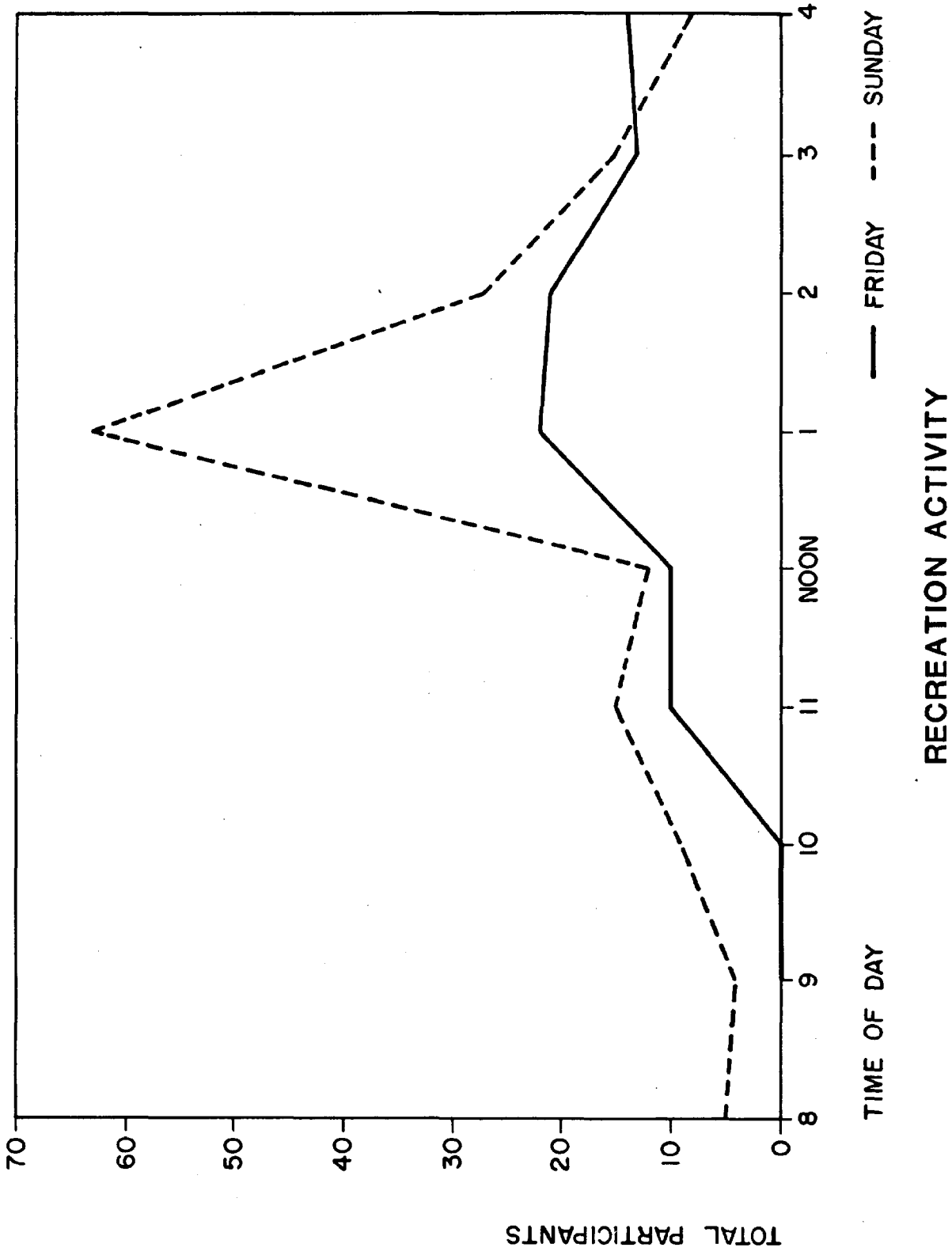
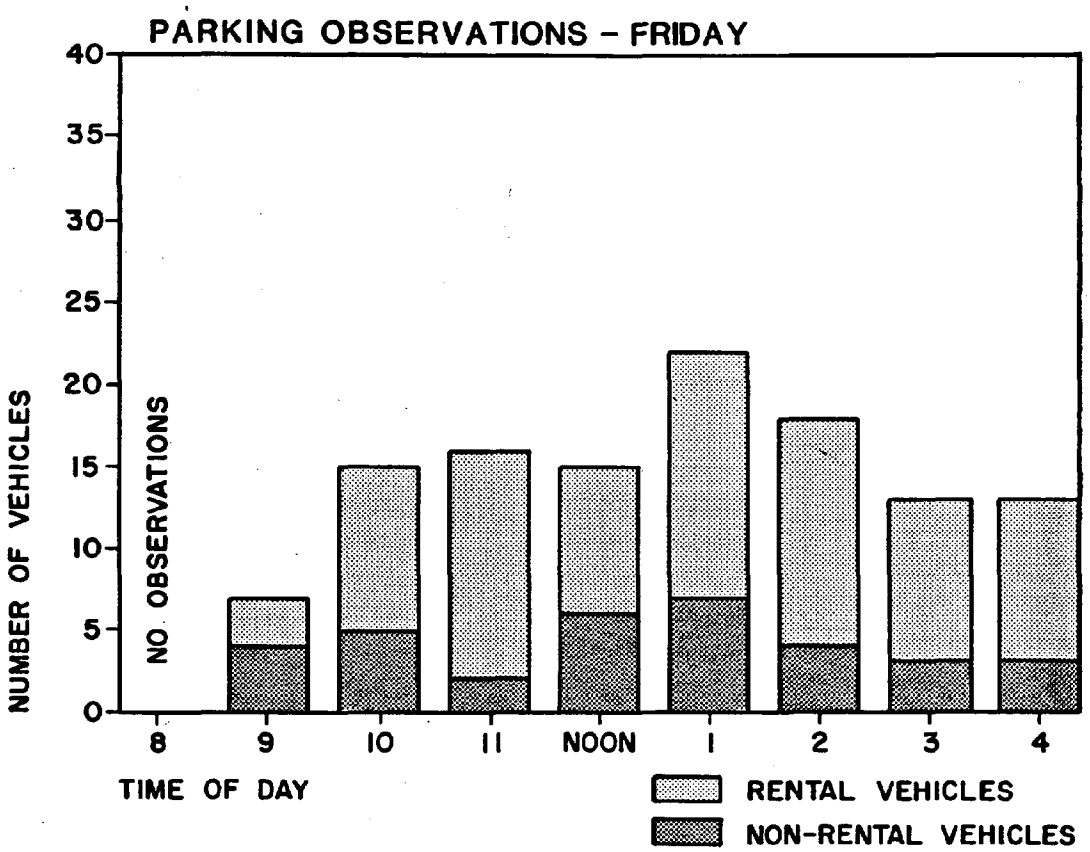



fig. 18 HAENA COUNTY PARK



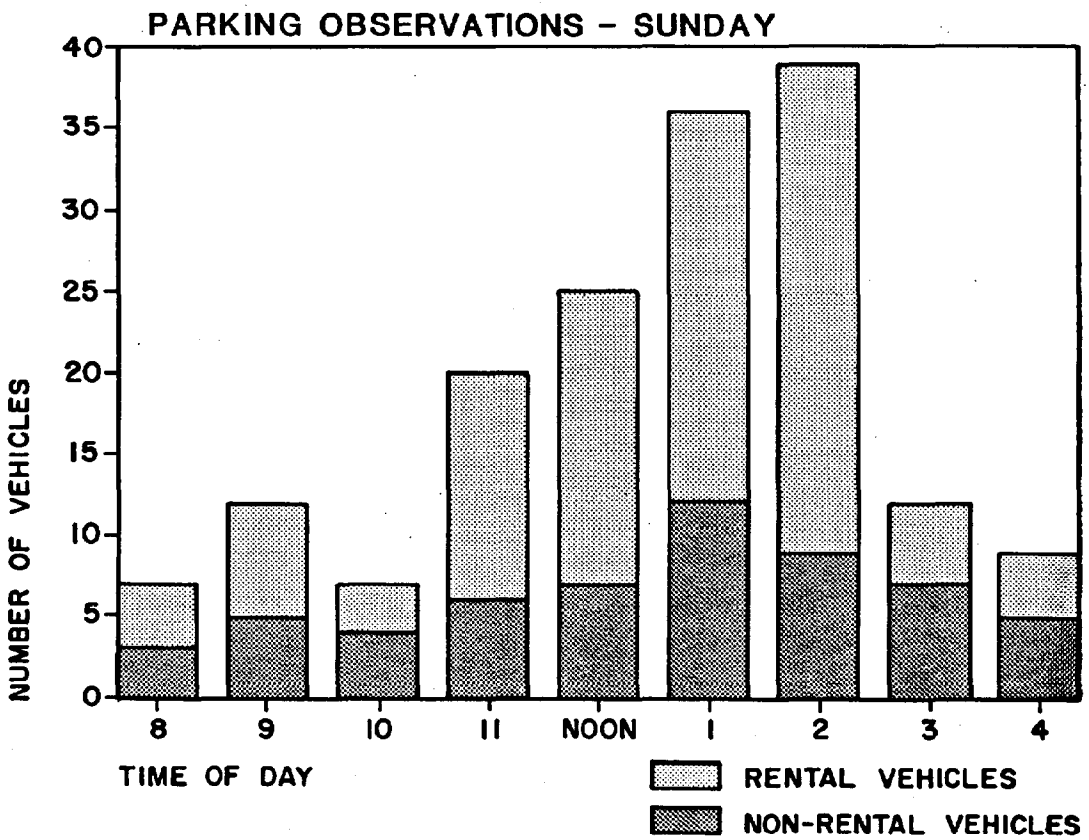




fig. 19 **HAENA BEACH PARK**

amounting to 74%. The proportion of rental cars counted only once in the hourly observations was similar to the preceding Friday, at 86%. For the 29 non-rental cars, 83% were only counted once.

On both days, parking counts peaked in the late morning and early afternoon, roughly between 10:30 A.M. and 2:00 P.M.

Carrying Capacity

The carrying capacity for various resources at Haena County Park was assessed both quantitatively and qualitatively. It is probable that over the years Haena County Park has seen a steady increase in visitor use as tourism to Kauai has increased. But, it is significant to note that the Park has not seen the recent dramatic increases in commercial use that have characterized Black Pot Park and Anini Beach Park.

Parking - Parking at Haena County Park is not currently a problem. Because of the relatively large parking lot, and short stop-over times of most of the park users, ample parking was available. In addition to the large parking lot along Kuhio Highway, parking was also available in a sandy area at the west end of the Park.

Rest Room/Cesspools and Shower Facilities - Throughout both days of observation, the two sets of rest rooms and shower facilities remained in acceptable condition. There were no indications of cesspool overflow, nor do records indicate problems with the cesspools. Standard estimates indicate that the cesspools should be able to accommodate 64 campers or 320 picnickers per day. The load on these facilities during the summer months would appear to exceed these capacities as camping alone averaged nearly 60 campers per day during weekends. Moreover, due to the number of visitors who use the area as a rest stop, day use of the rest rooms may actually be higher than the number of park users observed. Although soil conditions

appear to be extending the capacity of the cesspools by facilitating drainage, the high level of usage suggests the need for further examination.

Water/Electricity - Other than for the rest rooms and showers, use of water by park users was insignificant.

One of the campers had run an electrical line from the park rest room to his camp.

Other Park Facilities - Picnic tables, cooking grills and trash containers appeared to adequately meet the demands of the user population. Several of the campers were noted to have driven their trucks onto the grassy areas of the Park. This could adversely affect vegetation that stabilizes sand on the upper reaches of the beach and aggravate erosion during winter swell conditions.

Rescue/Emergency - The winter season brings large shorebreaking waves that are potentially hazardous to inexperienced swimmers. The level of water activity at this park, on the other hand, is significantly less than at the other study areas. Signs warning of hazards were noted.

Police - The need for police service has increased in proportion to the increased volume of park usage. This need, however, has not been exacerbated by the proliferation of commercial activities as has occurred at Black Pot Park and Anini Beach Park. On the contrary, the presence of the only existing commercial use, the lunch wagon, may actually discourage theft by providing incidental surveillance.

## D. TUNNELS BEACH

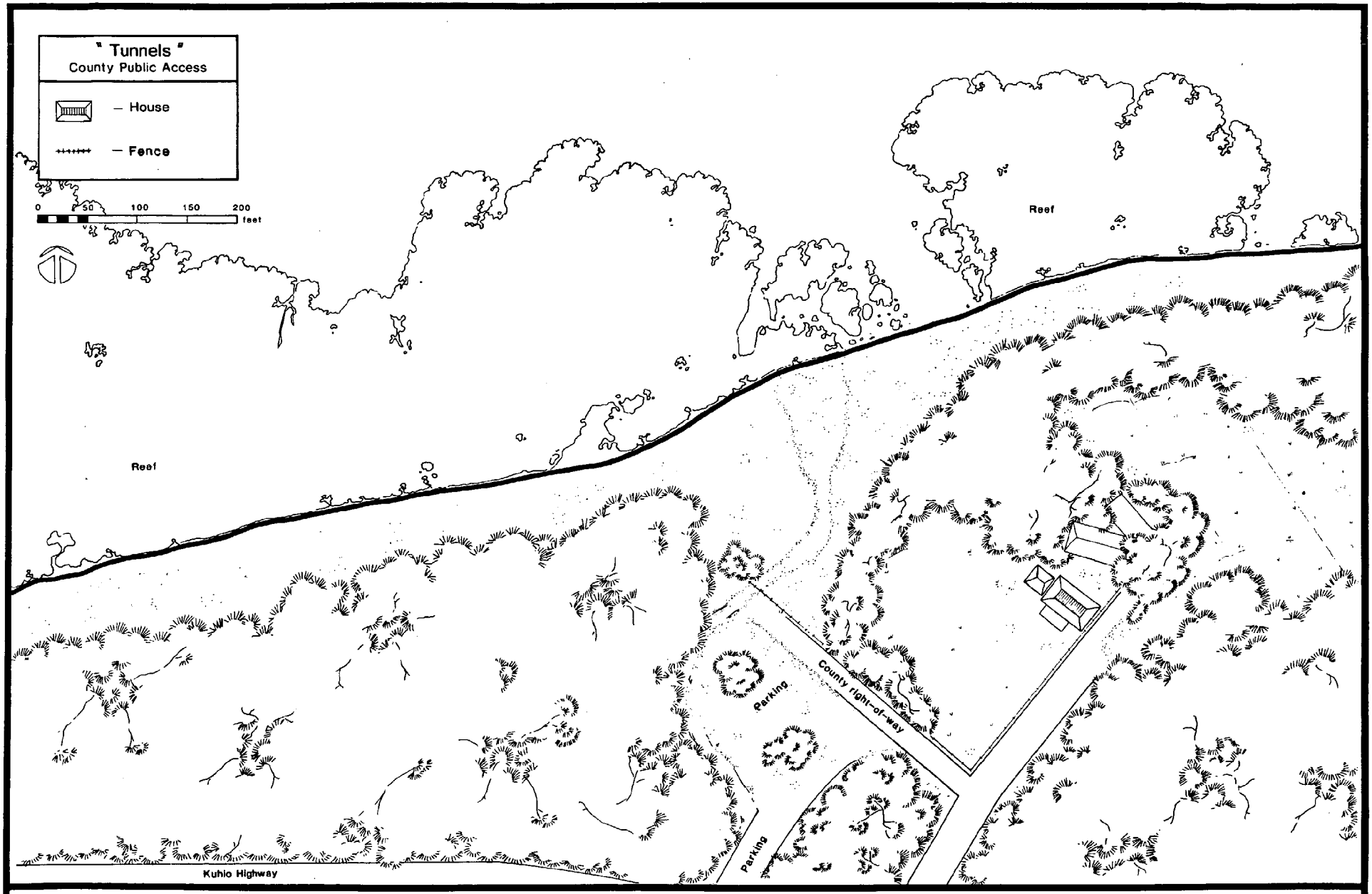
### Description

Tunnels Beach is the popular name for the sandy beach located about one-fourth of a mile southwest of Haena Point. See Figure 20. The beach is accessible by a unpaved county road right-of-way from Kuhio Highway. Parking is available along the right-of-way and in a private parcel where an informal parking area and another accessway to the highway have been created through continued use. There are no recreational support facilities available at the Beach although a private trash container has been placed in the informal parking area.

### Beach Use

Tunnels Beach is currently used for public and commercial recreation. See Figure 21. Although no facilities are available, the wide sandy beach is popular for sunbathing. The summer months bring calm and clear waters that make the coral reefs and sandy channels in nearshore waters ideal for snorkeling and SCUBA diving. The Beach is thought to have been named "Tunnels" because of the underwater cave formations which can be found in the reef.

A large offshore reef shelters the nearshore waters from ocean swells. Waves break on the outer edge of the reef, creating a surfing site. Pole, net and spear fishing as well as shell collecting opportunities are also available on the reef. More recently, windsurfing, primarily among the more experienced participants in the sport, has been highly visible in the outer reef area. One commercial tour boat operator holds a permit to land at Tunnels Beach to load and unload passengers while several other tour boating companies moor in the area to provide snorkeling experiences for their clients. Other commercial users of the Beach include SCUBA diving tours and snorkeling tours.




COUNTY OF KAUAI

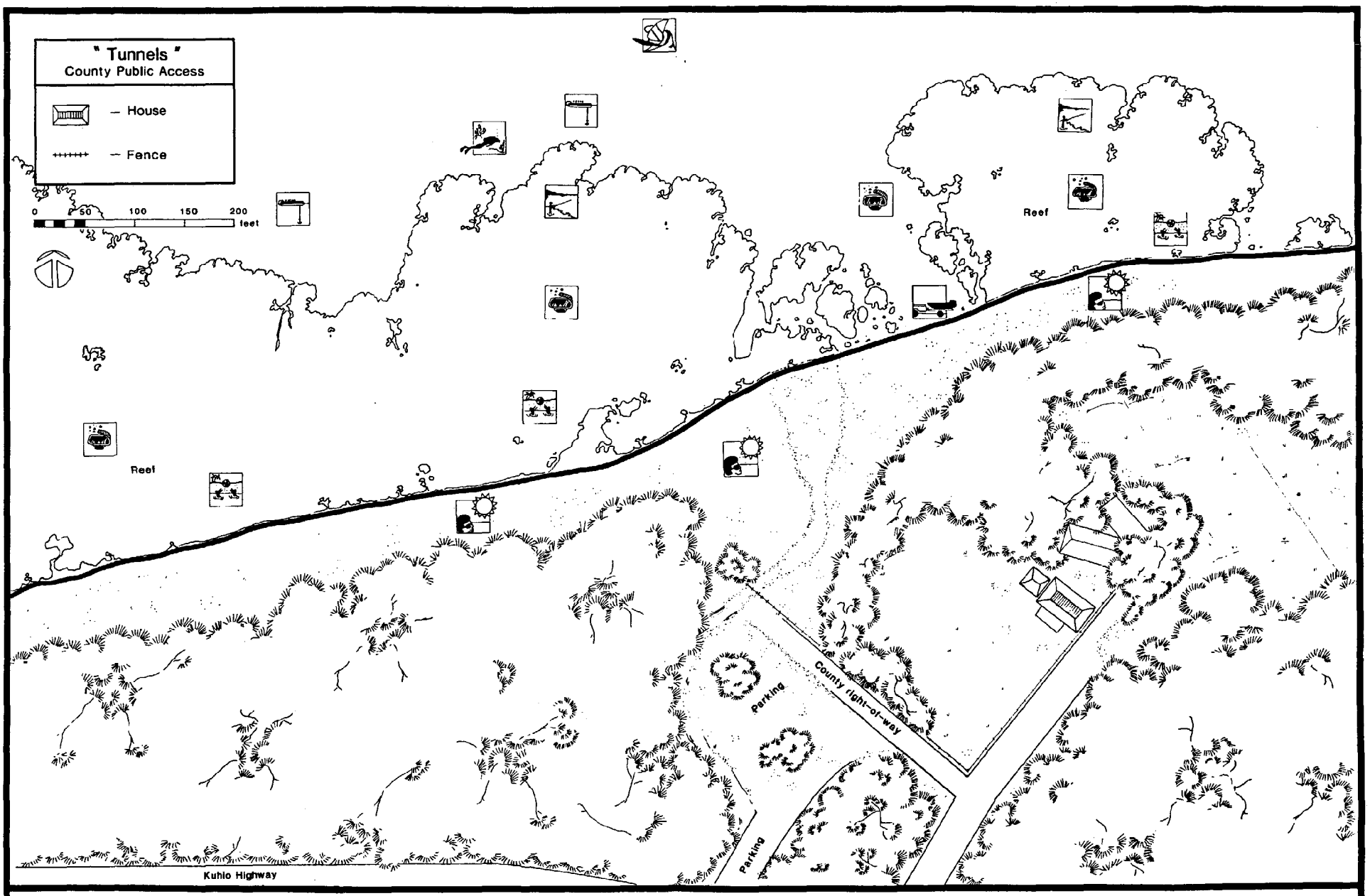
# COASTAL RECREATION MANAGEMENT PLAN

fig. 20

## TUNNELS BEACH EXISTING FACILITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.




COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 21

## TUNNELS BEACH RECREATIONAL ACTIVITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.

Weekday and Weekend Observations

Hourly observations of the parking area and beach were conducted between 8:00 A.M. and 5:00 P.M. on Friday, May 16, 1986 and between 9:00 A.M. and 4:00 P.M. on Sunday, May 18, 1986. By far, the most conspicuous commercial activity at Tunnels Beach is commercial boating. During the Friday observation, 137 passengers participated in boating tours departing from this beach. On Sunday, 85 passengers took boating tours. By comparison, the passenger counts at Black Pot Park were 281 and 194 for Thursday, May 15 and Saturday May, 16, respectively. The tours at Tunnels Beach were conducted in Zodiac-type inflatable vessels. Seven of these vessels made 21 landings at the Beach for passenger loading and unloading on Friday. Six of the same vessels made 14 landings on Sunday. All landings were made in a natural sandy channel through the reef. Embarking and disembarking passengers waded through the shallow waters between the shore and the boats. Refueling of the boats was accomplished using gas cans stored on a raft moored offshore of the entrance channel. None of the boats were launched or removed from the water at Tunnels Beach. Instead, they are launched from trailers at Black Pot Park and driven to Tunnels Beach to pick up passengers. At the end of the day, the boats return to Black Pot Park to be loaded back onto trailers.

In addition to passenger loading and unloading activities, Tunnels Beach is used by several boating companies as a snorkeling area. On Friday, 12 boats moored in waters fronting the Beach to give a total of 85 clients an opportunity of snorkel in the reef area. On Sunday, five boat moored in the area and a total of 52 snorkelers went overboard. The length of time each boat spent moored in the area averaged an hour.

In addition to the boating tours, two commercial SCUBA diving classes and a commercial picnic were observed at the Beach on Friday. The SCUBA diving classes were conducted at the county right-of-way where a van containing the diving equipment was parked. Instructions were also given in the water. The picnic was conducted on the Beach where a fire was built

in the sand to cook food. No commercial activities other than the boating tours were observed on Sunday.

Non-commercial activities at Tunnels Beach were defined as those not conducted in organized groups. These activities followed different trends on the two days of observation. See Figure 22. The Friday observation showed a steady growth in activity to a peak of 54 participants at 3:00 P.M. The Sunday observation showed a slow start, probably as a result of several rain showers between 8:00 and 10:00 A.M. By 11:00, the number of beach users had rapidly increased with an eventual peak of 69 achieved at 1:00 P.M. The subsequent decline was almost as rapid. By far, the most popular activity recorded on both days was sunbathing, accounting for an average of 65% of the activities recorded in each hour on Friday and 58% on Sunday. Swimming and snorkeling followed at 18% on Friday and 31% on Sunday. Windsurfing achieved 14% of the Friday total but only one participant was observed on Sunday. One or two surfers and fishermen were seen on both days.

The survey of cars parked along the county right-of-way and in the parking area indicated a greater volume of rental than non-rental vehicles. See Figure 23. Of the rental cars, a significant proportion appear to be those of visitors participating in non-commercially related activities. See Figure 24. This estimate is based on a comparison of tour boat departure and return times, and the time during which the cars were in the parking area. The level of non-commercial beach usage by visitors is somewhat surprising inasmuch as the Beach and the parking area are not visible to motorists travelling along Kuhio Highway. It has been suggested that many of the visitors recorded as non-commercial participants had been advised to use Tunnels Beach for snorkeling by companies renting snorkeling equipment.

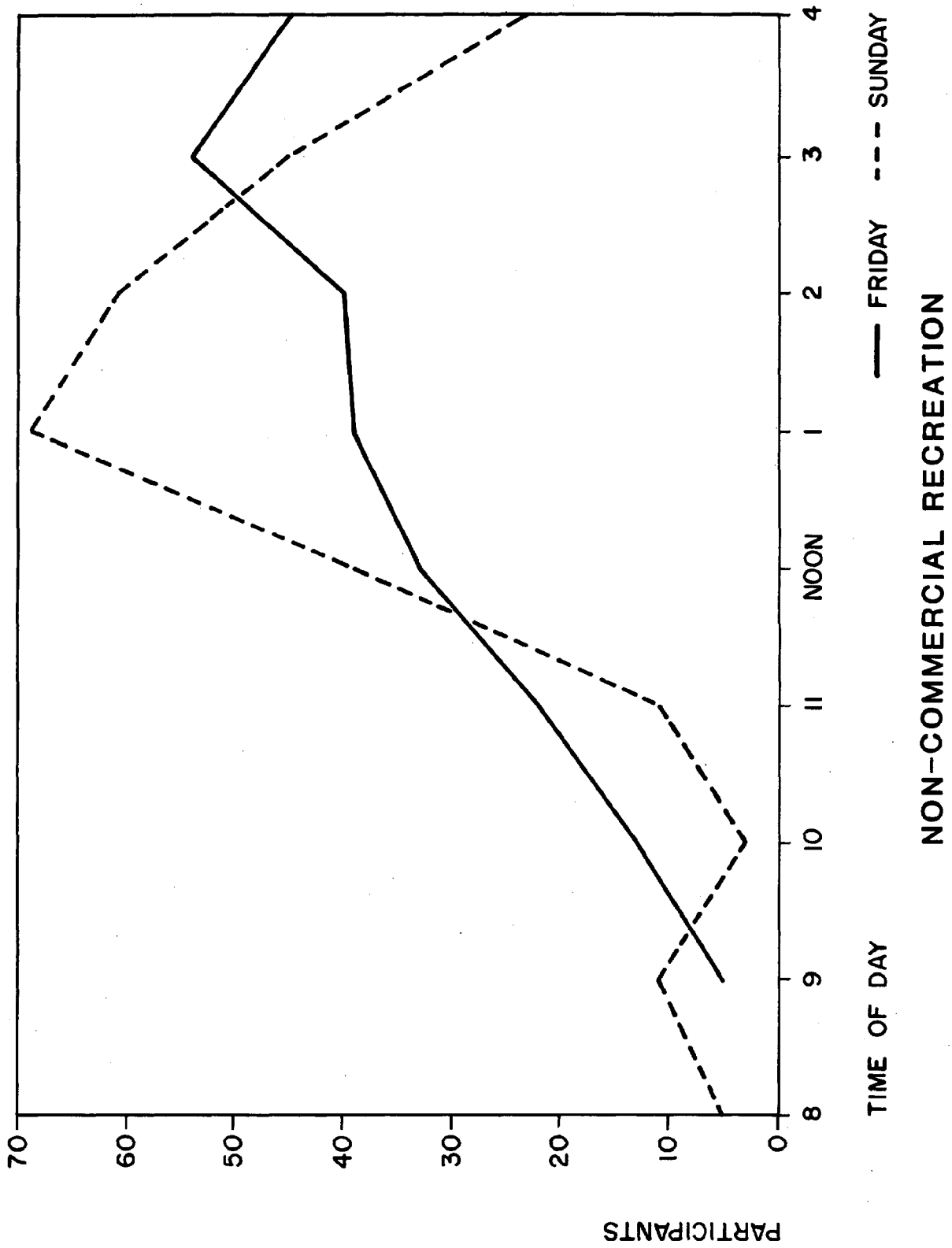



fig. 22 TUNNELS BEACH

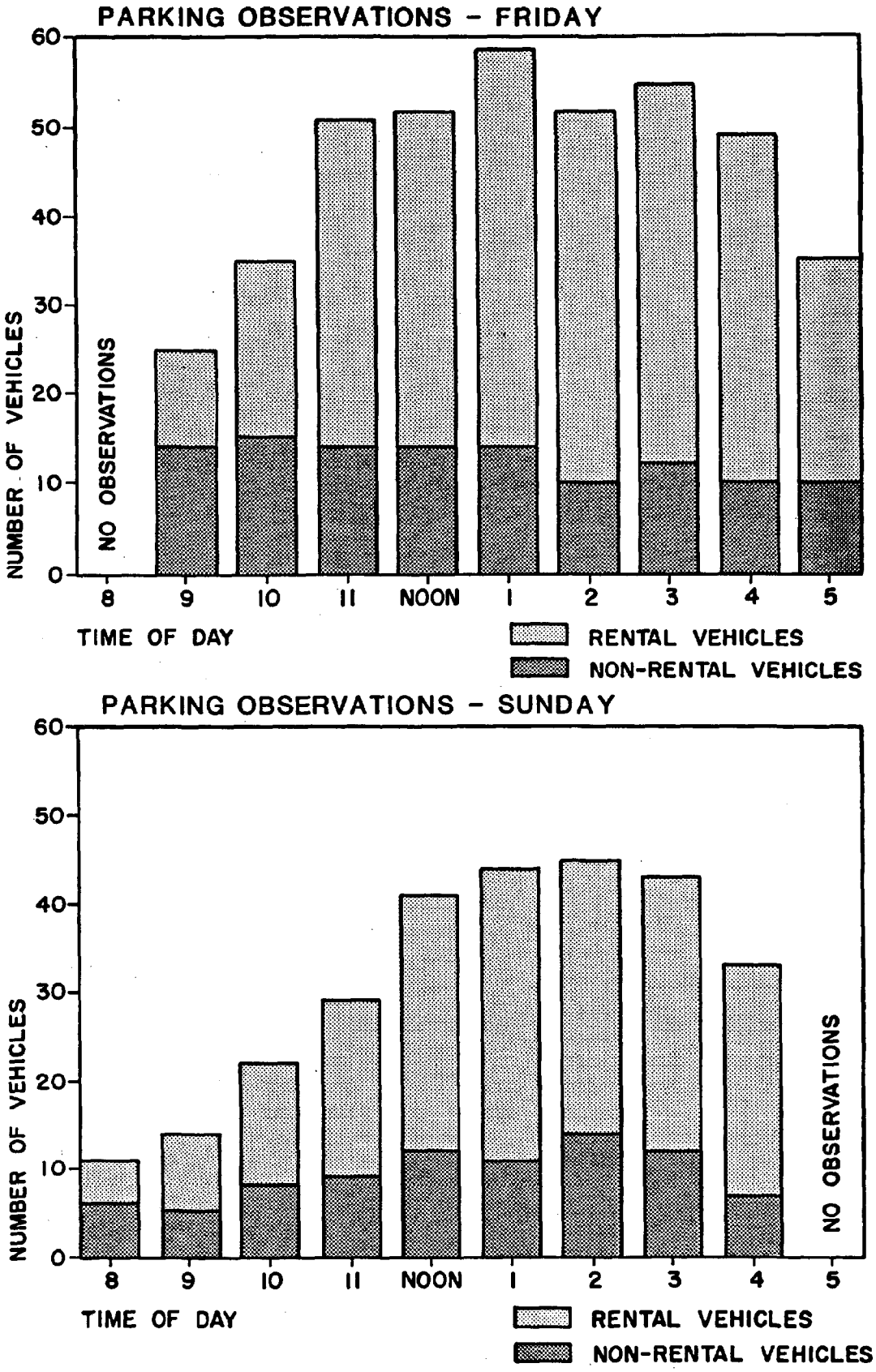
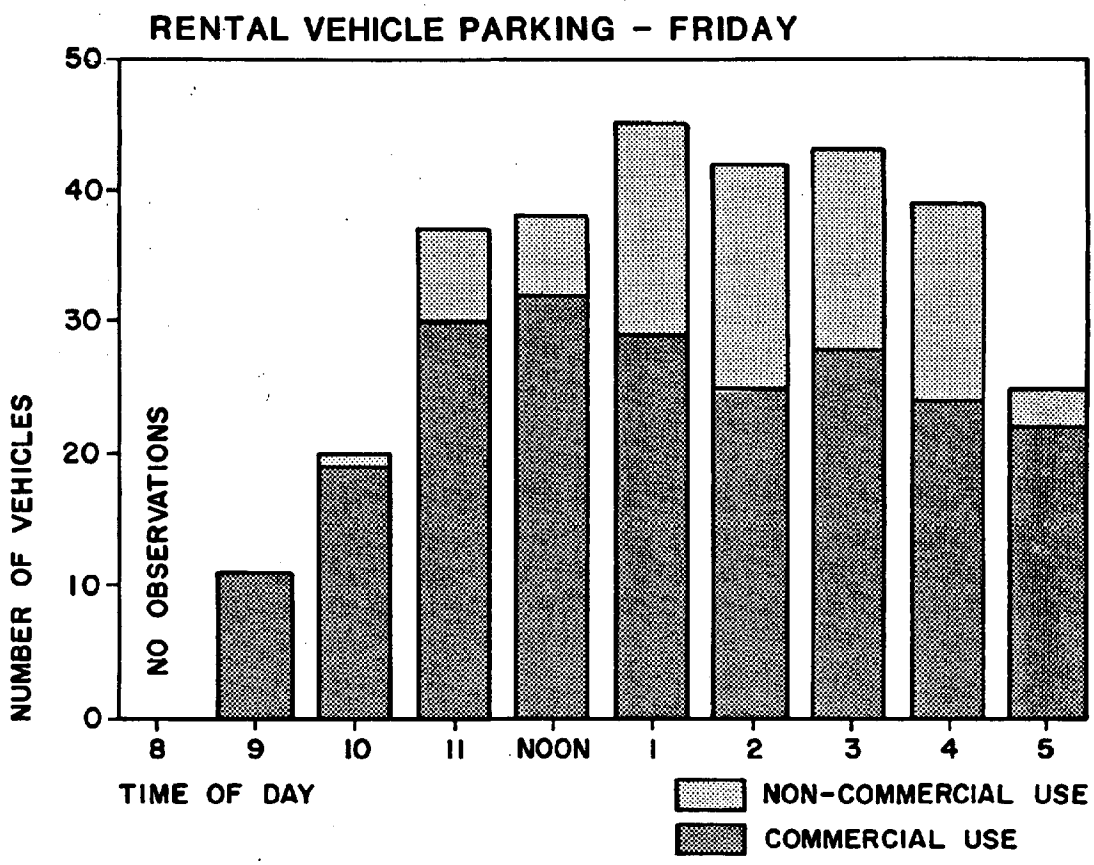



fig. 23 **TUNNELS BEACH**



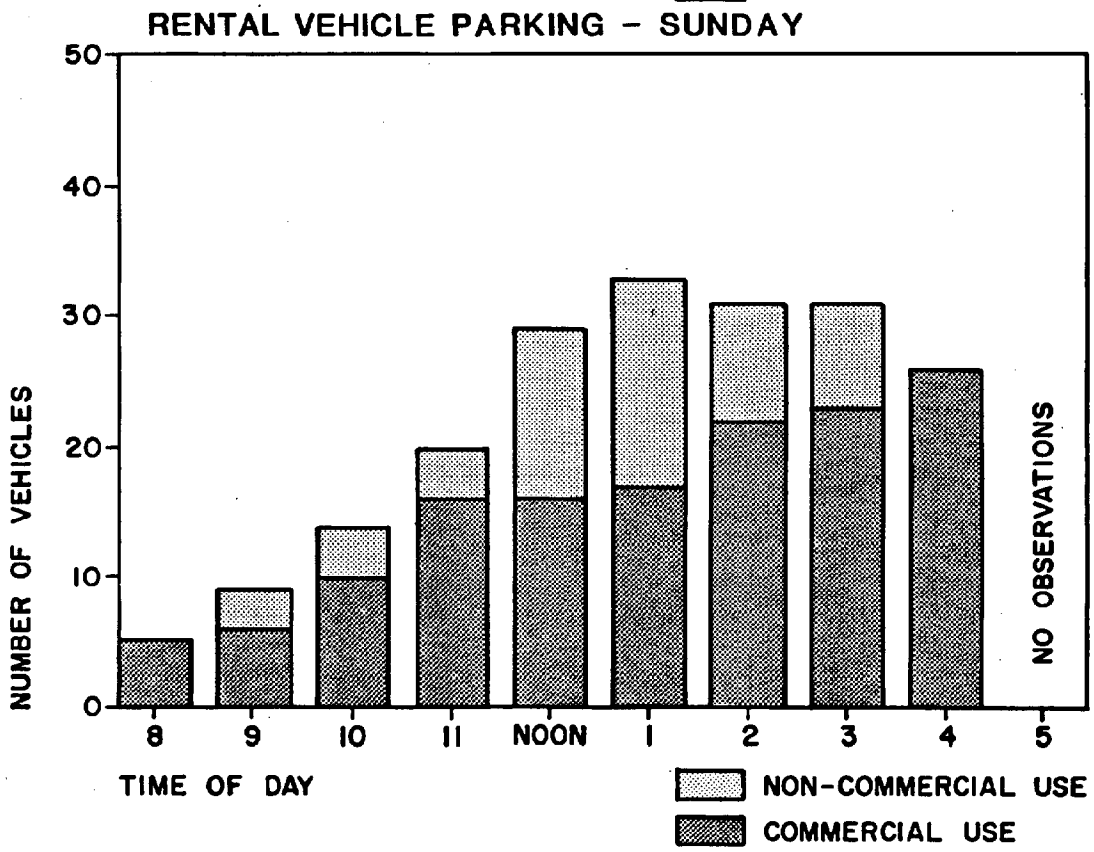




fig. 24 **TUNNELS BEACH**

Use of the parking area on both Friday and Sunday by non-rental vehicles appeared to be primarily for non-commercial purposes. Nevertheless, the time during which some of the non-rental vehicles were in the area coincided with the time of the boat tours and it is probable that they belonged to the commercial operators and employees. Also, a few vehicles bore the names of various commercial recreation operations.

Carrying Capacity

Carrying capacity at Tunnels Beach was assessed qualitatively for several aspects of beach use.

Parking - There is severe parking congestion at Tunnels Beach when use of the Beach is intense. Most parking is accommodated in the informal parking area on private property since the actual amount of parking available along the right-of-way is extremely limited. The available parking in the informal parking area, estimated to be between 50 and 60 cars, was at or near capacity throughout most of Friday. There are no marked stalls nor is the area designed to accommodate such heavy use. During busy periods, cars are frequently squeezed into marginal areas along the right-of-way or private driveways. Heavy vegetation on the perimeter appears to be receding due to the excessive parking use and as a result, creating more parking space. High levels of noise are generated by beachgoers and their vehicles which creates a perception of urban levels of congestion in this otherwise rural residential area. Due to the narrow shoulders on Kuhio Highway in the vicinity of this accessway, parking has not spilled onto the highway. Dense vegetation along the highway presently screens the parking area from motorists, although continued erosion of vegetation could open the area to view and invite greater incidental use by passing motorists.

County Right-of-Way - The county right-of-way is used by both recreational beachgoers and commercial operators to access Tunnels Beach. Since the right-of-way is flanked by private properties and is not clearly marked, unintentional trespassing is routine. Use of the informal parking area is

a prime example. In addition to sustaining property damage, such as to the existing vegetation, the landowner may be liable for the safety of the persons using the parking area. Although allowing parking may have originally been a neighborly gesture extended to residents of the area, the current level of use has far exceeded the neighborhood scale. Perhaps recognizing their potential liability, the adjoining landowner on the makai side of the right-of-way has erected a fence leading from the end of the county roadway to a grove of ironwood trees marking the edge of vegetation along the Beach. Beachgoers are thus directed along the right-of-way and discouraged from crossing over private lands to get to the Beach.

Beach Use - While use of the Beach is intense, the large space available does not appear to physically constrain users. The primary constraint is the absence of any support facilities. Although a trash container was available in the parking area, it was overflowing by Sunday morning, and there was litter sighted on the Beach. No cooking grills are available; at least one fire was built on the Beach for a commercial picnic. The unavailability of rest rooms is a potential health concern, particulary with respect to legal requirements for commercial service of food and beverage as was witnessed at a commercially organized picnic and evidenced when tour boats loaded supplies.

Boat Traffic - Vessel traffic at Tunnels Beach is intense and potentially hazardous to the numerous swimmers and snorkelers using the area. During the Friday observation, 21 landings were recorded at the Beach and 12 boats were moored offshore for snorkeling. While extreme care and slow speeds characterized the operation of boats in the nearshore waters, a safety concern exists. Several approaches of boats with engines running to within 100 feet of snorkelers were noted. On one occasion, several snorkelers had to be waved off to allow a boat to land.

Rescue - Due to the popularity of potentially hazardous sports such as SCUBA diving, windsurfing and surfing at Tunnels Beach, the need for rescue services has increased with intensified use. For ocean searches, however, the presence of so many commercial tour boats in the area probably meet such rescue needs. Indeed, the boat operators have been repeatedly credited for assisting in search and rescues. A potential problem at Tunnels Beach, however, is the lack of communication to call for rescue and ambulance services.

Police - The increased level of activity at Tunnels Beach during the summer, much of which is the result of commercial boating operations, has increased needs for surveillance and other police services. While these additional requirements have not critically overburdened the Police Department's available manpower capabilities, they have added to the overall workload.

## E. KEE BEACH

### Description

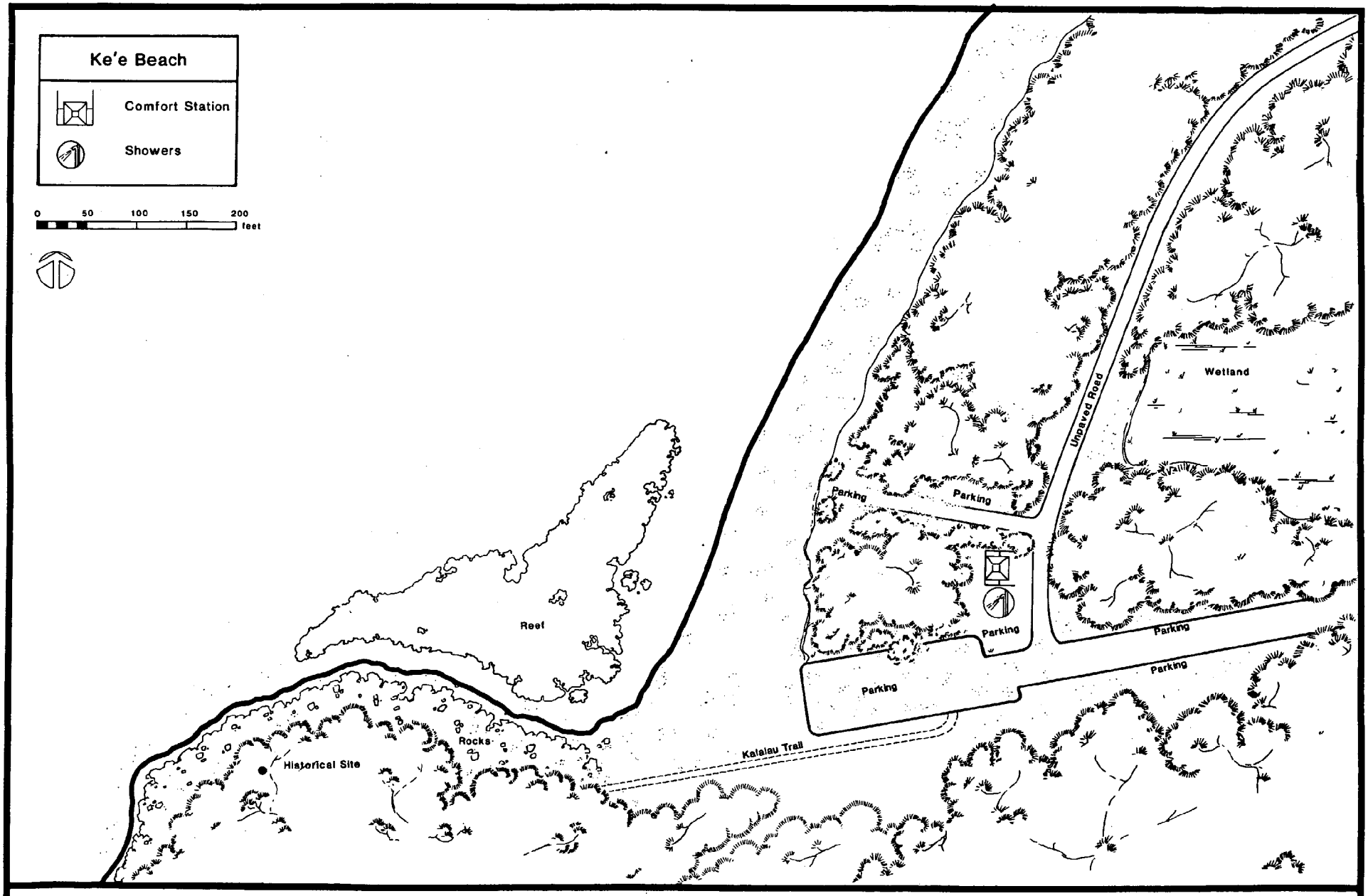
Kee Beach fronts Haena State Park, at the end of the Kuhio Highway. See Figure 25. The 14 acre park is owned by the State and maintained by the Department of Land and Natural Resources. Although the Park is unimproved it offers parking, rest rooms, and showers. Kee Beach is a white sand beach extending approximately one-fourth mile from the rocky outcropping at Ka'ili'o Point on the west to the base of Pali o Kee on the east.

The trailhead for the Kalalau Trail, which extends along the Na Pali coastline, is located in the parking area at the end of Kuhio Highway. Hanakapiai Valley, a favorite stop for hikers is two miles from Kee Beach by trail. Near the Park is the Waikapalae Wet Cave, the westernmost of a series of scenic caves located along Kuhio Highway in the Haena area.

In the immediate vicinity of the Park are the historic sites of the Kaula a Paoa Heiau, and the Kaulu o Laka Heiau.

### Beach Use

The parking area behind Kee Beach serves hikers, beach users, and is a rest stop at the end of the road for sightseers touring the island by automobile. The Beach itself is used for sunbathing, swimming, snorkeling, wading, fishing, and picnicking. See Figure 26. Camping is not permitted at this park, nor are motorized watercraft allowed to land. There are currently no commercial operations using Kee Beach.




COUNTY OF KAUAI

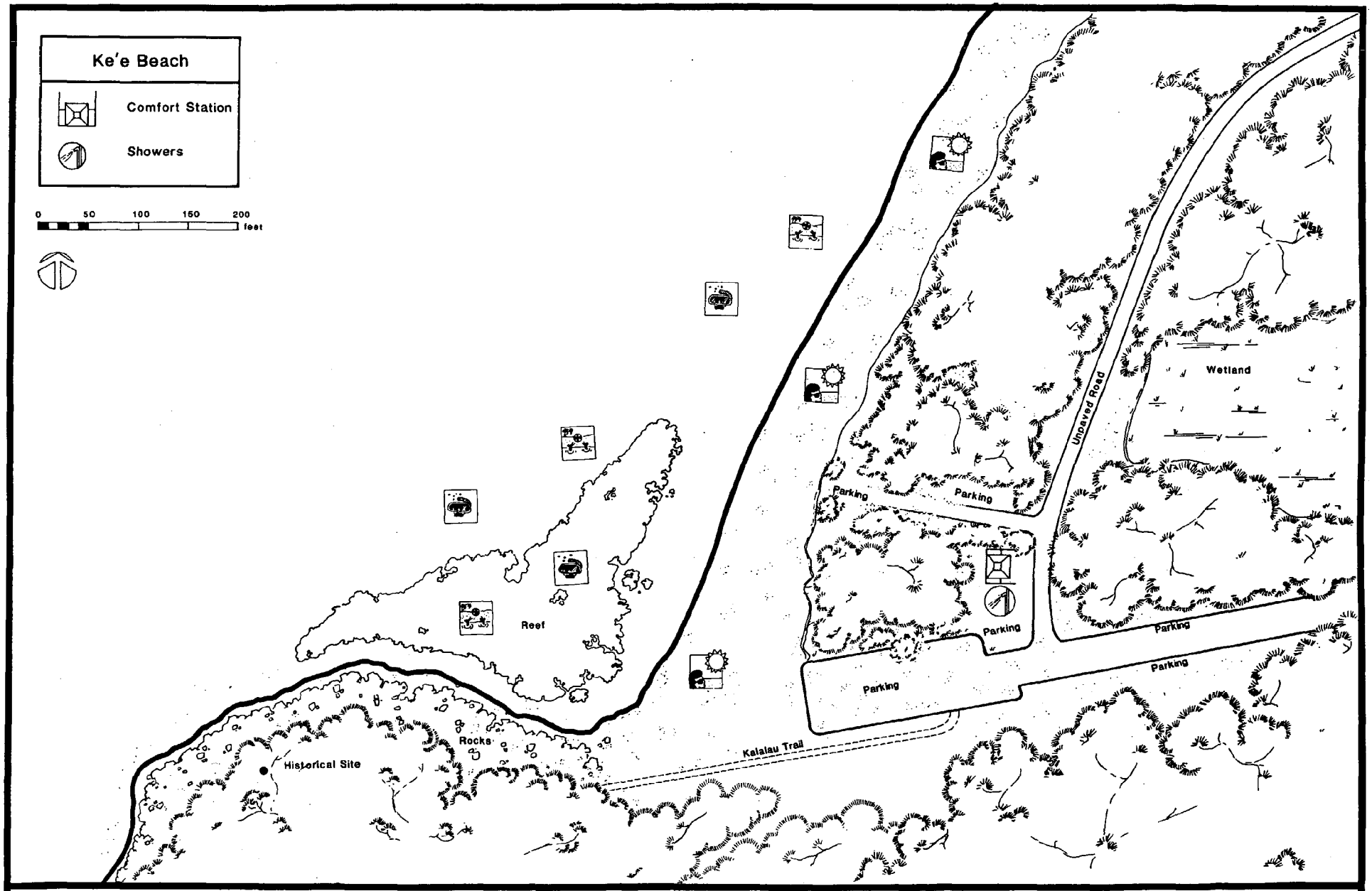
# COASTAL RECREATION MANAGEMENT PLAN

fig. 25

## KEE BEACH EXISTING FACILITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.




COUNTY OF KAUAI

# COASTAL RECREATION MANAGEMENT PLAN

fig. 26

## KEE BEACH RECREATIONAL ACTIVITIES MAP

Prepared for:
County of Kauai
Planning Department

Prepared by:
Wilson Okamoto & Associates, Inc.

Weekday and Weekend Observations

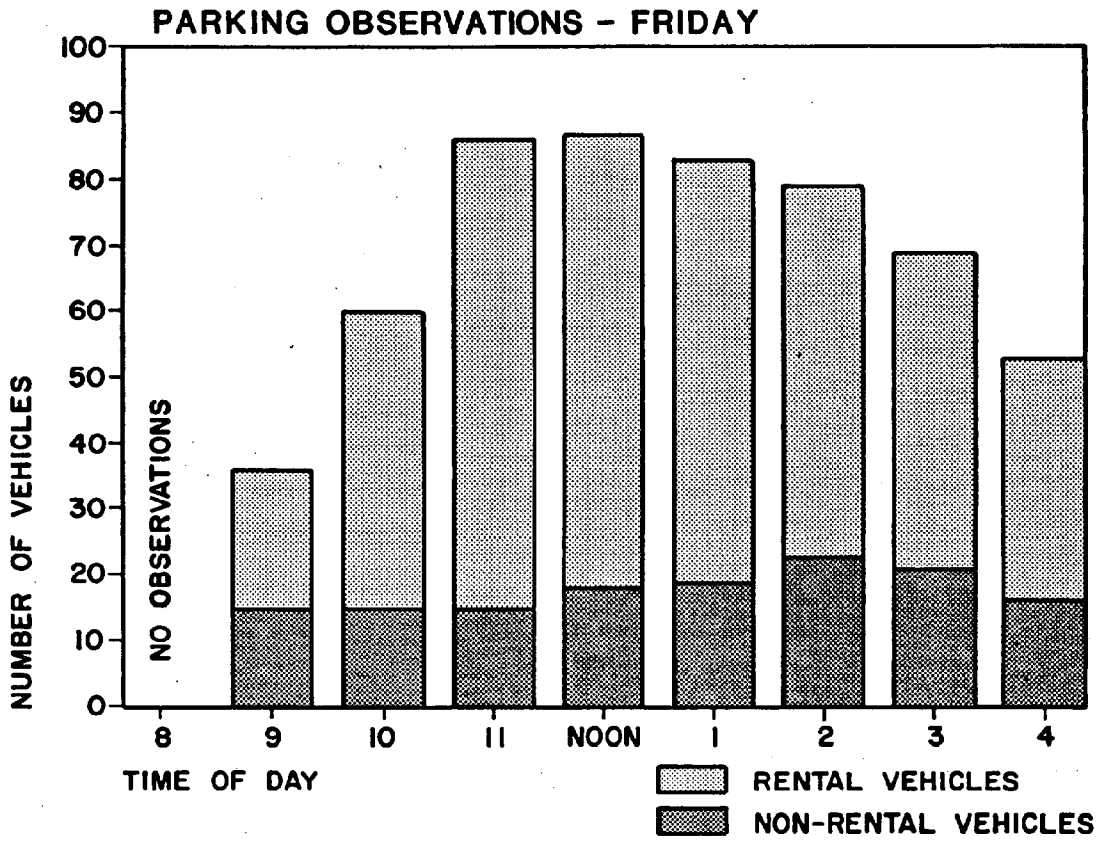
Observations of parking and recreational activities, were conducted between 9:00 A.M. and 5:00 P.M. on Friday, May 16, 1986 and between 8:00 A.M. and 4:00 P.M. on Sunday, May 18, 1986.

Parking is available in the vicinity of the rest rooms, in a parking lot at the end of the road and along the shoulders of Kuhio Highway. Overall parking did not seem to be noticeably heavier on either day. On Friday, a total of 213 different cars were observed in the parking areas and along the highway over the course of the day. Of these cars, 129 were in various off-street parking areas while 84 cars were parked along the highway. On Sunday 240 cars were observed, of which 151 were parked in the off-street areas and 89 were parked along the highway.

Although a few of the cars were present all day, the average stay ranged between two to three hours. Parking on both Friday and Sunday seemed to be heavy from about 11:00 A.M. to Noon, tapering off between 2:00 or 3:00 P.M. in the afternoon. See Figure 27. Parking peaked slightly later in the day on Sunday.

There was also a fair number of cars still parked in the area when the surveys ended on each day. On Friday, 53 cars were still parked in the area after 4:00 P.M. and on Sunday 61 cars were still parked there after 4:00 P.M.

The overall number on non-rental vehicles remained fairly constant through all hours of the day. Increases and decreases in total volume resulted mainly from changes in rental vehicles counts. On both days, rental car volume peaked in the midday hours.



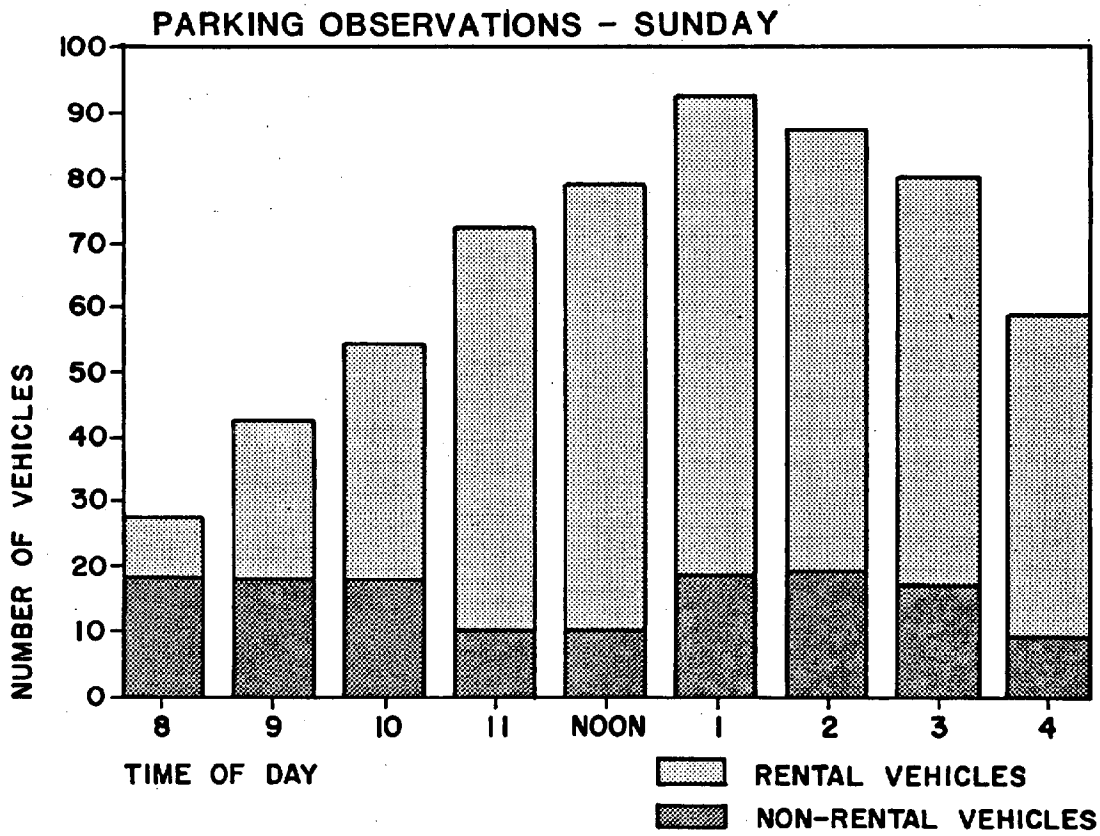




fig. 27 **KEE BEACH**

A comparison between the number of cars parked in the Kee Beach area and the number of people actually at Kee Beach reveals the significance of hiking activities at the Park. Consistently throughout the day, the numbers of cars counted was greater than the number of beach users. For example, on Friday a total of 36 cars were counted in the area at 9:00 A.M. and 60 cars were counted at 10:00 A.M., but observations of Kee Beach revealed only five people on the Beach at 9:00 a.m. and 38 people at 10:00 A.M. This difference was also observed on Sunday. The 8:00 A.M. observation counted 28 cars parked in the area, but there were only 12 people on the Beach. Observations suggest that persons not using the Beach were likely to be in either the parking lot and rest room areas, or hiking the Kalalau Trail. The hike to Hanakapiai valley is quite popular with visitors, and can take as little as two hours, round trip. Hikers going beyond Hanakapiai area are likely to camp out, leaving their cars parked overnight or longer.

The most popular recreational activity observed at Kee Beach was sunbathing, which averaged 51% of the recreational activities observed on Friday and 59% of the activities observed on Sunday. Second to sunbathing, the most popular activities were swimming and snorkeling, together averaging a daily average of 40% and 34% for Friday and Sunday, respectively. Other activities observed included picnicking, walking, wading, fishing from the shore and boat, and kayaking.

The peak in beach use came at 12:00 P.M. on Friday when 65 people were counted on the Beach and at 1:00 P.M. on Sunday, when 76 people were counted. See Figure 28. Beach use tended to be very light in the early mornings of both days, but increased sharply at 10:00 A.M. on Friday and 11:00 A.M. on Sunday. Use of the Park continued at a fairly high level until the last observations, at 5:00 P.M. on Friday and 4:00 P.M. on Sunday. Beach use on Sunday was generally greater than on Friday.

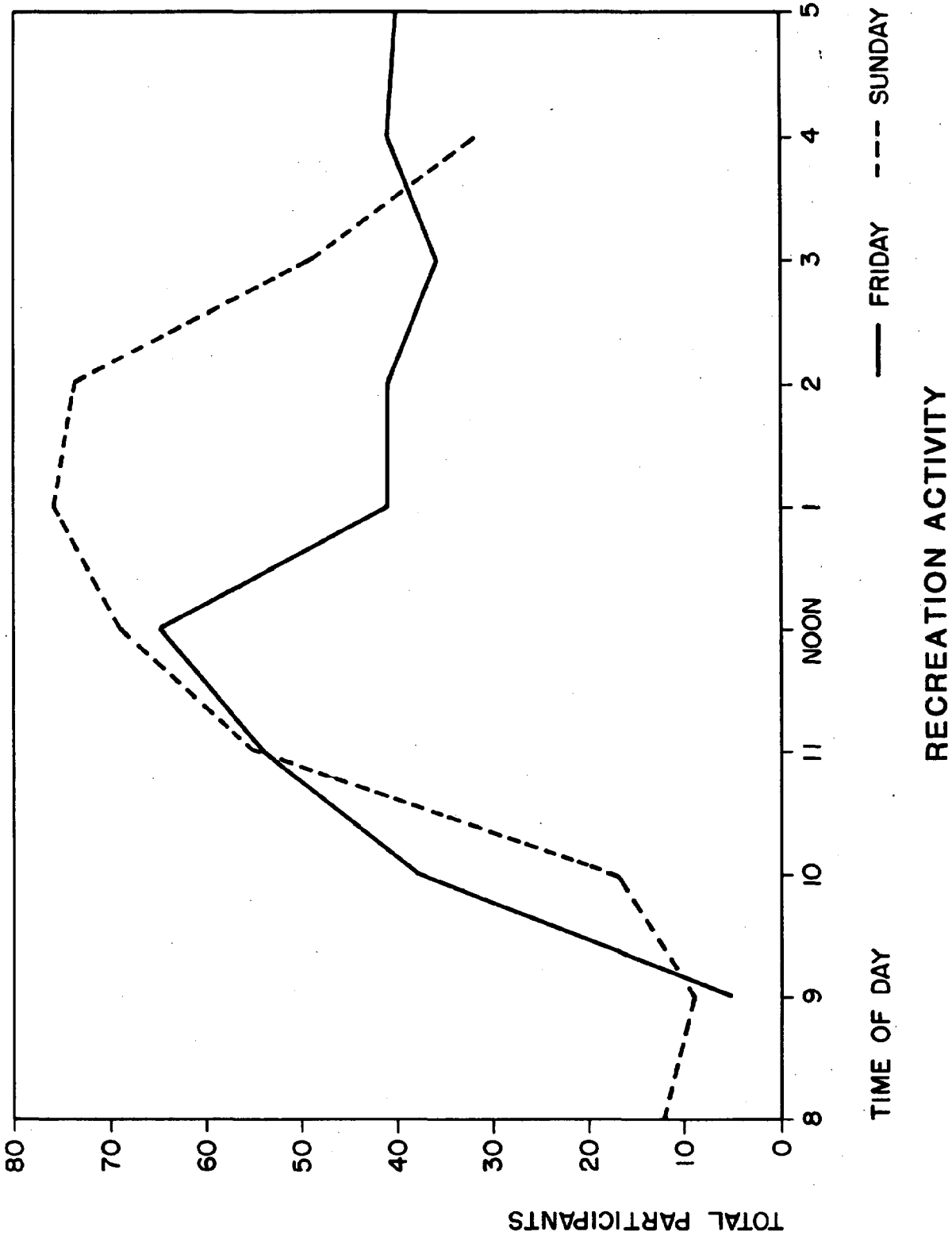



fig. 28 KEE BEACH

Carrying Capacity

Carrying capacity at Kee Beach was assessed qualitatively for various aspects of park use.

Parking - Parking in the Kee Beach area is one of the major concerns currently facing Haena State Park. The problem stems from the great demand for parking by users of Kee Beach, hikers on the Kalalau Trail as well as sightseers using the area as a rest stop. Further, because the parking areas do not have clearly marked stalls, the amount of parking that can be accommodated varies, depending on how the cars are parked.

Generally, people seemed to park along the highway when parking was not available in off-street areas. Parking along the highway shoulder impedes traffic to some extent. As on-street parking extends further away from the end of the road, congestion and pedestrian traffic on the highway increases, and traffic movement slows down and becomes more hazardous.

Rest Room/Cesspools and Shower - The rest room located off of Kuhio Highway serves beachgoers, hikers as well as sightseers. Standard estimates indicate that the cesspool should be able to accommodate 160 picnickers/day-users of the Beach per day. While the number of people counted at the Beach peaked at 76 on the Sunday observation, the high volume of sightseers using the road end as a rest stop would suggest that the estimated capacity was exceeded. Nevertheless, the rest room facility remained in adequate condition throughout both days and no indication of cesspool overflow was observed. The shower was generally in satisfactory condition, although drainage caused the surrounding area to get muddy.

Water/Electricity - Water consumption was confined to rest room and showers usage. No electrical usage was observed during the survey.

Rescue - The Beach presently has neither lifeguard services, nor an emergency phone. Based on the level of water activity at the Beach, a lifeguard may be warranted during the busy summer months. A telephone for emergencies that may occur at the Beach or along the Kalalau Trail would facilitate summoning aid.

Police - The County of Kauai Police Department has recognized that theft of unattended cars in the parking area is a problem. In previous summers, they have established a visitor information booth in the area. The side benefit of the booth is the additional surveillance they provide as a deterrence to thieves.

# IV. MANAGEMENT AUTHORITIES

## A. BACKGROUND

The management responsibility for coastal recreation in the North Shore area rests with four government agencies: The County of Kauai departments of Public Works and Planning, the Department of Transportation (DOT), and the Department of Land and Natural Resources (DLNR).

The County Public Works Department manages the county parks while the County Planning Department controls "development" within the Special Management Area, which extends from the shoreline, inland to the Special Management Area Boundary. The DOT has jurisdiction over the shorewaters of the State, and over boats and boating. The DLNR has jurisdiction over the lands seaward of the shoreline, including submerged lands.

## B. THE COUNTY OF KAUAI

There are several bases upon which the County regulates the commercial activities of the Hanalei Bay area. First, the County has the general authority to regulate activities in its parks under County Ordinance 383, entitled "The Parks and Recreation Ordinance" which was passed in 1980. This ordinance empowers the County Engineer to issue permits for activities taking place at county parks. Among the guidelines that the County Engineer follows in issuing such permits is; "(a) the proposed activity will not interfere with or detract from the general public enjoyment of the park and recreation activity."

County authority over commercial activities in a beach area was first exercised through Ordinance 485, passed in March of 1986, which regulates concessionaires at Poipu Spouting Horn Park.

At Black Pot Park and Anini Beach Park, the County exercises its authority over commercial recreational activities through the Special Management Area (SMA) permit. The Special Management Area permit system, established pursuant to the State's Coastal Zone Management Law, was enacted in response to the State Legislature's finding that, "special controls on developments within an area along the shoreline are necessary to avoid permanent losses of valuable resources and the foreclosure of management options, and to ensure that adequate access, by dedication or other means, to public owned or used beaches, recreation areas, and natural reserves is provided." The Legislature also declared that it is the State policy "to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawaii."

The SMA extends from the shoreline, defined as the vegetation line, landward to an inland boundary established the County. The law specifies that there shall be no development in these areas without permits issued

by the County. Commercial recreational activities are managed under a statutory definition of development as a "change in the density or intensity of use of land..."

Guidelines for the issuance of the SMA permit include the following:

1. All development in the special management area shall be subject to reasonable terms and conditions set by the authority in order to ensure:

   a. Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles.

   b. Adequate and properly located public recreation areas and wildlife preserves are reserved.

2. No development shall be approved unless the authority has first found:

   a. That the development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interests. Such adverse effects shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and the elimination of planning options.

3. The authority will seek to minimize, where reasonable

   a. Any development which would reduce the size of any beach or other area usable for public recreation.

The County determined that the Department of Land and Natural Resources (DLNR) would need to obtain an SMA permit if it intended to issue permits for commercial activities that would necessitate traversing the SMA.

Since the DLNR's action would not involve physical development, a minor permit was issued by the Director of the Planning Department to the DLNR on July 24, 1985. SMA minor permit No. 86-6, covered boat landings at Black Pot Park and Anini Beach Park through December 31, 1985. The permit was extended on January 9, 1986 to May 31, 1986. A second extension in June, 1986 moved the expiration date to June 30, 1987.

Conditions of the permit require that the commercial tour boat operators, employees and passengers, be shuttled in and out of the Park when they are using Black Pot Park, or Anini Beach Park. Commercial operations are not allowed to use the beach parks or adjacent government land for the storage or their equipment or to conduct commercial activities other than loading and unloading passengers. Further, they are responsible for removing their own trash. Lastly, the Planning Department reserved the right to modify, or revoke the permit, should problems arise or in the event that regulations governing commercial activities be adopted.

## C. THE DEPARTMENT OF TRANSPORTATION

Arising out of concern over the growth of commercial recreation operations along Kauai's North Shore, the State legislature passed House Resolution number 298, H.D. 1, requesting the Department of Transportation (DOT) to investigate problems relating to the beaches and shorelines of the North Shore of Kauai and to develop a management plan for the area.

The statutory jurisdiction and authority of the DOT with regard to developing the management plan are, respectively, control of the ocean waters under State jurisdiction and the responsibility for regulating "boats and boating", which includes such recreational ocean activities as swimming and surfing. The geographic jurisdiction of the department is described by law: "All ocean shores below mean highwater mark, shore waters and navigable streams, and all harbors and roadsteads, and all harbor and waterfront improvements, belonging to or controlled by the State, and all shipping within the harbors, roadsteads, waters, and streams" (Section 266-1, H.R.S.). Notably, the landward boundary of the DOT's jurisdiction does not coincide with the shoreline, as defined by the vegetation line, but the mean highwater mark which lies further seaward. The section dealing with the Department's boating authority (Section 267-1 H.R.S.) directs the DOT to "make, alter, amend and appeal rules and regulations not inconsistent with the law as may be reasonably necessary to implement the policy and purpose of this chapter...it shall adapt and promulgate rules and regulations with respect to the... operation, use, and equipment of vessels on or in waters of the State;..."

In delegating the Department with authority over boating, the State Legislature established the policy and purpose of the chapter as promoting and attaining the full use and enjoyment of the waters of the State; and to insuring the safety of persons and the protection of property as related to the use of those waters (Section 267-1, H.R.S.).

In response to the House Resolution, the Department formed an Ad Hoc Committee to recommend measures for alleviating public concerns. The membership of the committee includes two legislators, a County Council member, departmental personnel from the State Department of Transportation, the State Department of Land and Natural Resources, the County Planning Department, and various members of the Kauai community including those with special economic interests in commercial activities on the North Shore.

The Ad Hoc Committee formulated the following preliminary list of goals and objectives:

1. To respond to the concerns expressed in House Resolution 298, H.D. 1, Thirteenth Legislature;

2. To assure the protection of the incomparable beauty, rural settings and historical sites of Kauai's North Shore;

3. To separate, as necessary, conflicting recreational uses, such as swimming, from boating and windsurfing;

4. To allow and limit the commercial operation and encourage self-regulation;

5. To provide a wide variety of recreational uses with minimal adverse impact, and maximum safety;

6. To protect water from pollution by recreational and commercial users;

7. To conserve and preserve the fisheries of Hanalei Bay; and

8. To provide for review of the management plan at least every five years.

After nine months of bi-monthly meetings, the Ad Hoc Committee developed a set of preliminary recommendations for submission to the 1986 State Legislature. These recommendations are summarized as follows:

1. Protect the special rural, scenic and historic character of the area;

2. Centralize all commercial tour boat loading and unloading operations to one site to be designated in the Hanalei River;

3. Restrict commercial operations on the beaches of the North Shore;

4. Prohibit commercial motorized vehicles from designated areas within Hanalei Bay;

5. Establish a no-wake speed limit within Hanalei Bay, all reefs, and within 200 feet of the coastline;

6. Establish an agency to control coastal water management;

7. Establish a permit system to limit commercial operations;

8. Provide for a regular review of the management plan; and

9. Request various studies to develop better information for future decision making.

In formulating the preliminary recommendations, the Ad Hoc Committee proceeded with the assumption that a 1986 statutory revision extending the DOT's jurisdiction from the mean high waterline to the highest wash of the waves, as evidenced by the vegetation line, would be enacted. Under this amendment, the DOT's jurisdiction would encompass activities on the beach. Subsequently, however, it was determined that the DOT was prohibited by the

State Constitution from exercising control over this strip of land. Therefore, the Department's jurisdiction has not changed and remains "all ocean shores below mean highwater mark, and shorewaters."

In response to the Committee's recommendations, the DOT drafted a set of Administrative Rules for the North Kauai Ocean Recreation Management Area. These rules are patterned after previously adopted rules for the Waikiki and Kaanapali areas. Generally, the DOT's proposed rules include provisions such as:

1. A permit system for commercial guides and operators with a requirement that they have 180 days of previous work experience, and proof of financial responsibility;

2. Limitations on the number of commercial vessel registrations allowed within specific areas, with restrictions on passenger capacities, and minimum requirements for gross receipts;

3. Geographically defined zones in the water for swimming, and bathing;

4. Restrictions on sailboarding, and other vessels; and

5. Vessel operation restrictions such as speed limits and distances from shore and other activities.

The DOT has presented these proposed rules to the Ad Hoc Committee for discussion. When the rules have been finalized, they will be adopted by the DOT.

## D. THE DEPARTMENT OF LAND AND NATURAL RESOURCES

The Department of Land and Natural Resources (DLNR) controls recreational activity along the shoreline through two different sections of the Hawaii Revised Statutes.

Under Section 171-1, H.R.S., the DLNR has authority to manage, administer and control public lands; public lands being those lands and interests classed as government lands. Along the shoreline this generally includes all lands seaward of the high wash of the waves, as evidenced by the vegetation line.

Under Section 183-41, H.R.S., the DLNR has the authority to administer and manage the use of lands classified as conservation by the State Land Use Commission. By definition, all lands seaward of the high wash of the waves are designated conservation.

The existing permit system administered by the DLNR on the North Shore of Kauai originated in the context of applications made for CDUA permits in late 1984. At a meeting of the Board of Land and Natural Resources, held on June 28, 1985, the Board discussed the problem of commercial activity in the Hanalei area. In order to help the DLNR staff develop a "rational" carrying capacity for the Bay, the Board decided to institute a trial period during which it would issue temporary variances from the CDUA and allow such operations on a revocable permit for the use of State land along the beach. During this period, no restriction on the number of permits to be issued was imposed.

The permits limited the allowable use to the loading and unloading of passengers, while prohibiting the loading and unloading of passengers at any other location. The permits were terminable on 48 hours written notice by either party without cause.

Other conditions on the permit required the permittee to procure public liability insurance and to submit reports of daily activity once a month. Further, no more than two commercial boats are to be in the landing area at any time. The permit also stated that the issuance of the temporary permit did not confer any future rights or guarantees to later beach access.

Also incorporated were conditions imposed by the County Special Management Area Permit. These prohibited the use of the beach park area for parking by the permittee or patrons, and the use of government lands adjacent to the parks for storage of equipment, supplies or other property. Permittees were also prohibited from engaging in other commercial activities such as food or beverage service and solicitation and from using the park trash cans.

By August 1985, 22 companies were operating in Hanalei Bay. They were operating 27 boats, and one company was operating 15 one-man kayaks.

When the six month period for the temporary permit expired in December 1985, an extension to May 31, 1986 was granted by the Board to allow the Ad Hoc Committee to complete its report.

By May 23, 1986, 42 permits had been issued. At that point the Board again discussed the permit issue. They decided to extend the effective date of all existing permits until June 30, 1987 in order to give the State Legislature an opportunity to act on the Ad Hoc Committee's recommendations. Certain restrictions were to apply during the extension period. There would be a moratorium on the issuance of any additional permits. Should any active permits be terminated, they would not be reissued, also permits would not be transferrable.

# V. OBJECTIVES AND POLICIES

## A. BACKGROUND

Objectives and policies for the Kauai Coastal Recreation Management Plan (KCRMP) are required as a basis for determining how to resolve the previously discussed conflicts and concerns. For example, to what degree commercial tour boating operations will be allowed to continue, if at all, at Black Pot Park; or, whether public uses may be infringed upon to promote this valuable economic activity. The objectives and policies for the KCRMP were formulated based on previously expressed desires of the State, County of Kauai and the North Shore Community.

Notably, the potential conflict between community desires for economic development and the protection of public recreational, environmental, and cultural resources is a familiar theme in the hierarchy of plans and programs that range from the comprehensive Hawaii State Plan to Kauai's North Shore Development Plan (1982) Update. These plans and programs establish the framework of policies within which the KCRMP was developed. In this section, pertinent aspects of these plans and programs are discussed to delineate this framework and demonstrate the bases for the objectives and policies presented in this plan.

At the most comprehensive level, the Hawaii State Plan serves as the "umbrella" document for all state and county plans and programs in Hawaii. This plan, the first of its kind in the Nation, was signed into law by Governor Ariyoshi in 1978. It establishes an overall theme, provides goal statements, objectives, policies, implementation mechanisms and priority directions for guiding Hawaii's future.

To provide the necessary level of detail required to implement the Hawaii State Plan, Functional Plans have been prepared by appropriate state agencies for each of twelve functional areas. Characteristically, these Functional Plans tend to emphasize specific courses of action for the

agencies that prepared them. All twelve functional plans have now been adopted by Legislative Resolution. Of these, only the State Recreation Plan was judged to contain objectives and policies offering concrete guidance for the KCRMP.

Among state programs that also implement the Hawaii State Plan, the Coastal Zone Management Program offers legislatively adopted and legally enforceable objectives and policies directly applicable to the KCRMP. The State Ocean Management Plan, prepared by the Coastal Zone Management Program, is a statement of objectives, policies and recommended implementing actions to better coordinate and direct the State's varied efforts to develop as well as manage ocean resources.

At the county level, the Kauai General Plan was adopted by ordinance to guide land use and infrastructure development decisions for the entire island. Also adopted by ordinance, the North Shore Development Plan is a statement of community desires for the North Shore area. The Kauai County Master Plan for Parks and Recreation establishes the objectives and policies for acquiring and developing county parks. Most recently, the State Department of Transportation has initiated the formulation of a management plan for Hanalei Bay and other North Shore beaches of Kauai. This plan addresses issues similar to those addressed by the KCRMP but from the perspective of managing offshore activities.

## The Hawaii State Plan

Several sections of the Hawaii State Plan are relevant to the KCRMP. The objectives and policies for the Visitor Industry are particularly relevant to commercial recreational operations on the North Shore since they service the visitor market. With respect to such activities, the State Plan establishes the objective of developing "a visitor industry that constitutes a major component of steady growth for Hawaii's economy (Section 226-8(a), HRS). Tempering this objective, however, are supporting policies stipulating the need to ensure that visitor industry activities

are in keeping with the social, economic and physical needs and aspirations of Hawaii's people. . ." and ensuring "that visitor facilities and destination areas are carefully planned and sensitive to existing neighboring communities and activities." (Section 226-8(b)(2, 5), HRS).

The State Plan objectives and policies for the Physical Environment speak to the shoreline and marine resources such as those available at or accessible from county parks and public accessways. The objectives call for the "prudent use" of such resources and the "protection of Hawaii's unique and fragile environmental resources." (Section 226-11(a), HRS). Among the supporting policies, two are relevant to the KCRMP: "Pursue compatible relationships among activities, facilities and natural resources, especially within shoreline areas;" and "Promote greater accessibility and prudent use of the shoreline for public recreational, education and scientific purposes." (Section 226-11(b)(8, 9), HRS).

The objective and policies for Socio-Cultural Advancement-Leisure provide guidance for the administration of county parks and recreation areas. The objective is stated as the need to achieve "adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations." (Section 226-23(a), HRS). Among supporting policies of significance with respect to the KCRMP are those which call for fostering and preserving "Hawaii's multi-cultural heritage through supportive programs and activities," providing "a wide range of activities and facilities to fulfill the recreation needs of all diverse and special groups;" enhancing "the enjoyment of recreational experiences through safety measures, educational opportunities, and improved facility design and maintenance;" promoting the "recreational and educational potential of natural resources having scenic, open space, cultural, historic, geological, or biological values;" ensuring "opportunities for everyone to use and enjoy Hawaii's recreational resources;" and assuring "the availability of sufficient resources to provide for future recreational needs." (Section 226-23(b)(1-6).

State Functional Plan for Recreation

The State Functional Plan for Recreation provides guidance and specifies implementing actions concerning various aspects of recreation in the State. The objectives for Land Use and Planning and Conservation and Resource Management provide general guidance for the KCRMP. The former calls for achieving "a pattern of land and water resources usage which is compatible with community values, physical resources, recreation potential, and recreation uses which support comprehensive public land use policies." The latter would "(e)stablish a system of maintaining natural and cultural resources for present and future generations, and of managing recreation and other uses in accordance with sound conservation principles."

The objectives, policies and implementing actions for Recreation Facilities and Programs and Access concern funding alternatives for acquiring and developing new parks and public accessways. These were judged to be only tangentially related to managing recreational activities. The Coordination aspects of the Functional Plan, however, speaks to the overlapping agency jurisdictions characterizing the scope of the KCRMP. The objective in this regard is to "(p)rovide adequate recreation opportunities which meet expressed needs and are available as a result of the cumulative effectiveness and cooperation of recreational suppliers and users."

Hawaii Coastal Zone Management Program

The State of Hawaii Coastal Zone Management Program is a system for protecting diverse coastal resources, guarding against natural coastal hazards and striking a balance between the development and conservation of coastal resources. As applied to the KCRMP, the program offers guidance for recreational resources as well as economic uses. The coastal recreational resource objective is to "provide coastal recreational opportunities accessible to the public." (Section 205A-2(b)(1)(A), HRS). Supporting this objective are various policies among which are, "(p)rotecting coastal resources uniquely suited for recreational activities

that cannot be provided in other areas; "(p)roviding and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;" "(p)roviding an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;" and "regulating point and non-point sources of pollution to protect and where feasible, restore the recreational value of coastal waters." (Section 205A-2(c)(1)(B), HRS).

With respect to commercial uses, the objective for Economic Uses is to provide "public or private facilities and improvements important to the State's economy in suitable locations." (Section 205A-2(b)(5), HRS). Related to this objective with respect to activities such as commercial boating operations is a policy to "(i)nsure that coastal dependent development such as harbors and ports, visitor industry facilities, and energy generating facilities are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area."

Implementation of the Coastal Zone Management Program objectives and policies is in large part accomplished through the County Special Management Area permit process.

State of Hawaii Ocean Management Plan

Though not legally binding, the State of Hawaii Ocean Management Plan provides comprehensive guidance for the use of ocean resources. The objective and policies relating to Ocean Recreation are particularly cogent to the KCRMP. The objective is to "(p)rovide coastal and ocean recreational opportunities for residents and visitors, consistent with concerns for public safety, conservation of natural and historical/cultural resources, and conflicts with other ocean activities." Among supporting policies are those promoting "interagency coordination and planning in the provision of recreational opportunities, services and facilities;" maintenance and expansion of "public access to and along the shoreline, to

offshore islets, and in the State's waters, consistent with the conservation of natural resources and the safety and welfare of recreational participants and adjoining property owners;" and assessment and mitigation of "conflicts between various ocean recreational activities."

Kauai General Plan

The General Plan for the County of Kauai is primarily intended to guide land use and infrastructure development decisions and offers little concrete guidance for managing coastal recreational activities. The Recreation objective, however, provides a clear directive to "provide for a maximum variety of outdoor recreational activities."

North Shore Development Plan

The North Shore Development Plan is a statement of policy that reflects the community's desires, intentions, and aspirations. Notably, the plan emphasizes preserving the rural atmosphere of the area by controlling population growth and development and conserving land and water resources. Economic development objectives call for maintaining tourism at current levels while encouraging agriculture and smaller industries and commercial enterprises. Several of the recommendations relating to Outdoor Recreation speak directly to the management of coastal recreational resources and activities addressed by the KCRMP:

1. Only basic supportive facilities should be provided at outdoor recreation areas selected for general public use in order to enhance the experience. Improvements should be limited to such things as access, comfort stations, trash receptacles, water fountains, emergency telephones, and parking.

2. Multiple activity recreation areas must be managed to avoid hazardous conflicts between recreators and allow maximum use of resources (e.g. areas suitable for swimming, paddling, and fishing).

3. More camping areas should be developed at Anini Beach and Wainiha Valley, with adequate security measures.

4. Although public access is obtained to recreational resource areas, publicity should be minimized unless the appropriate agency can assure adequate management and security measures. Local residents should be allowed to continue traditional patterns of resource use.

5. New public access to resource areas should be limited to pedestrian trails rather than vehicular roads, if control of use is an objective. Vehicular access should be allowed only for maintenance and emergencies.

6. Access to the Na Pali Coast area should be limited to foot trails by hikers and campers with permits only. Other modes of commercial access such as helicopters and boats should be discouraged, except for maintenance and emergency purposes.

Kauai Parks and Recreation Master Plan

The primary purpose of the Parks and Recreation Master Plan is to serve as a decision-making tool for physical improvements to existing recreation areas and a guide for acquiring and developing future recreational areas and facilities. As the emphasis is primarily budgetary, little guidance is offered with respect to managing recreational activities. Notably, however, there are policies for creating "safe and pleasant recreation settings which maintain or enhance existing resources" and promoting "proper use of recreation resources by promoting public awareness of user responsibilities to the resources and to other users." Coordination is mentioned with regard to inter-agency recreation planning as well as

monitoring "community values and the inventory of recreation resources, facilities, and programs in order to evaluate the relationships between recreational supply and demand.

Management Plan for Hanalei Bay and North Shore, Kauai

Although this plan has yet to be completed, the Ad Hoc Committee preparing it has adopted a set of goals and objectives to guide its development. Among these are the following:

1. To assure protection of the incomparable beauty, rural settings and historical sites of Kauai's North Shore.

2. To separate, as necessary, conflicting recreational uses, such as swimming, snorkeling, diving and fishing, from recreational and commercial boating, sailing, windsurfing, and waterskiing.

3. To allow limited commercial operations to continue and to encourage efforts for self-regulation.

4. To provide for a wide variety of recreational uses of the beaches, with minimal adverse impact and maximum safety of all users.

5. To protect the waters adjacent to beaches from pollution by recreational and commercial users.

6. To conserve and preserve the fisheries of Hanalei Bay.

## B. OBJECTIVES AND POLICIES

The objectives and policies contained in the preceding plans and programs, though no necessarily entirely compatible, suggest priorities among activities. The highest priority is accorded to conserving natural resources and historic resources. The second priority is providing public recreational opportunities to accommodate as wide a variety of activities as possible, within certain limits which will be discussed subsequently. Visitor industry activities and facilities, though regarded as important to the state and county economy, is relegated to a lower priority.

The limits to accommodating recreational activities, other than the protection of natural and historic resources, include such factors as promoting public safety and welfare, minimizing conflicts among activities, protecting unique recreational resources, preserving Hawaii's multi-cultural heritage and exercising sensitivity toward community desires. Community desires expressed in the North Shore Development Plan and the Draft Management Plan for Hanalei Bay and North Shore, Kauai include preserving the rural atmosphere of the area and limiting commercial access to natural areas by boat and helicopters.

Based on these priorities and limitations and, in consideration of inherent conflicts among policies, the following objectives and policies for managing coastal recreation on the North Shore of Kauai are offered:

### Objectives for County Shoreline Parks and Accessways on the North Shore of Kauai

Conservation of unique environmental, historic and archaeological resources.

Promotion of safe and considerate public use, enjoyment and appreciation of County shoreline parks and public accessways.

Accommodation of traditional Hawaii fisheries, including subsistence and small-scale commercial fishing activities.

Limited accommodation of commercial recreational operations valuable to the County economy.

Policies

Provide for public use of coastal recreational opportunities in a manner consistent with the:

conservation of natural historic and cultural resources;

promotion of public safety and welfare;

accommodation of diverse recreation activities;

protection of adjoining properties;

availability of support facilities;

rural atmosphere of the North Shore community;

Accommodate traditional Hawaiian fisheries activities in a manner consistent with the provision of public recreational opportunities.

Manage commercial recreational operations in a manner consistent with the provision of public recreational activities and the accommodation of traditional Hawaiian fisheries by assuring:

minimal conflicts with recreational activities and traditional Hawaiian fisheries;

minimal use of facilities, utilities and space intended for general public use;

adequate compensation for services such as general park maintenance, rescue, police, permit administration, incidental use of park facilities, and use of park space or accessways intended for general public use;

Coordinate management of recreational and other activities with other agencies having adjacent or overlapping jurisdiction.

# VI. RECOMMENDATIONS

## A. BLACK POT PARK

### Management Needs

The current problems at Black Pot Park have precipitated primarily as a result of increased commercial tour boat operations. These problems compound previous concerns expressed by the community regarding use of offshore mooring areas by boats participating in the Transpacific race.

The problems surrounding commercial activity at the Park have persisted in spite of attempts by the Department of Land and Natural Resources to impose controls through the revocable permit system. Although the permit system was primarily for monitoring boating activities, specific conditions were imposed on commercial operators to minimize recreational impacts. These included restrictions against storing equipment on park premises, using park trash containers, and soliciting or conducting business transactions in the park. The permits also included requirements for shuttling all passengers into and out of the park.

The carrying capacity assessment in Chapter III indicated some degree of resource, facility and service constraints. Resource constraints include activity conflicts and resultant safety hazards associated with competition/conflict between commercial tour boating and swimming, fishing and recreational boating. Facility constraints include vehicular congestion at the state boat launching ramp adjacent to the Wharf, occasional overloading of the cesspool, and flooding of the shower area. Service constraints include occasional deterioration of rest room conditions and over-filling of certain trash containers. Rescue and police service needs have increased but, to date, these needs have generally been met without seriously jeopardizing service in other locations.

More significant than these constraints was the community concern voiced about the intensity of activity at this rural park. The perception of problems with respect to intensity of park use is relative. By urban

standards, the current use intensity would likely be acceptable. On the other hand, compared to the prior use of this rural park, the current level of activity is significantly greater.

Commercial operations currently account for more than half of all boat launchings and landings occurring in the park. Consequently, there is increased boat traffic in the area accompanied by higher noise levels and more people, including the boat operators and their clients.

To a large extent the boat operators have begun complying with conditions imposed on their revocable permits and have resolved some of the earlier problems. Recent observations revealed that as a result of shuttling passengers, or directing them to park in the newly opened private parking area, automobile and boat trailer parking in the park is now available throughout the day. It was also observed that shuttling of commercial tour passengers minimizes their use of the park and its facilities. On the other hand, with the opening of the private parking lot, park use by clients may increase since tours will end in the Park rather than at the end of the shuttle run outside the Park.

Even with improvements in parking and reduction in client use of the Park, other perceptions of intense park use remain, particularly in the area near the Wharf, where the level of activity is concentrated and openly visible to park users. Operators mooring their boats in this area were observed loading and unloading passengers, refueling from trailered fuel tanks, and stocking food and beverages. Some operators washed down boats with water obtained from the hose bib in the Park. Boat operators and clients also used park trash receptacles and showers. All of these activities contributed to the perception of intense park use. Conflicts with swimming, fishing and sunbathing are also a problem in this area, with conflicts so severe that these activities were generally precluded while commercial boating activities were on-going.

Management Efforts

Currently, the primary management authority exercised at Black Pot Park over commercial boating activities is the revocable permit system administered by the State Department of Land and Natural Resources (DLNR). The County indirectly manages those commercial activities through its issuance of a Special Management Area permit to the DLNR, enabling it to establish the revocable permit system.

Toward regulating offshore boating, the State Department of Transportation (DOT) is currently developing rules and regulations governing boating in Hanalei Bay. Recently, the DOT presented a draft proposal of those rules to its Ad Hoc Committee. Proposed is a registration system for commercial tour boats operating out of Hanalei Bay, area restrictions for boating in the Bay, a permit system for guides leading tours along the Na Pali Coast, and the establishment of tour operator requirements.

The proposed boat registration system would allow a maximum of 32 boats but would contain a "grandfather" provision to initially accommodate all existing boats operating out of Black Pot Park and Anini Beach Park. The 32 boat limit would be eventually achieved through attrition. The permit system for tour boat guides would require a minimum of 180 working days of experience in the Na Pali Coast area and a review system to screen applicants. The tour boat operators must provide proof of financial responsibility and meet other requirements. The area restrictions establish an offshore mooring area beyond the Wharf, a swimming area immediately south of the Wharf, and two areas for boat access to the shoreline. Commercial and recreational boats have access to the shoreline in the area extending north of the Wharf to the river mouth; only recreational boats are allowed to use the area fronting the Hanalei Pavilion which lies south of Black Pot Park.

Management Recommendations

The primary management need at Black Pot Park is to reduce the intensity of park usage by commercial tour boat operators. The reduction of commercial activities is intended to preserve the rural atmosphere of the park which is a valued aspect of the park's character. While the importance of the tour boat operations is recognized with respect to enhancing Kauai's important visitor industry and for providing job opportunities, their use of the park is secondary to the protection of public recreational opportunities.

As discussed previously, the environmental impacts of boating operations, particularly with regard to minor spillage of gasoline while refueling, is relatively insignificant.

At Black Pot Park, the current intensity of park usage can be reduced by spatially and temporally segregating commercial and non-commercial uses, restricting activities that create the impression of intense use, and reducing the overall volume of commercial activities. Further, to the extent that infringement of commercial operations on public enjoyment of the park cannot be mitigated, some form of compensation to the public would be warranted.

Management of commercial activities at Black Pot Park can be achieved through a county-administered concession system regulating commercial tour boat operations in the park. This system would establish a limit on the number of operations allowed, designate the location and hours during which those commercial activities will be accommodated, and specify restrictions on activities. It would also assess a fee from the commercial operators intended to recompense the public for impositions on their use of the park. Other measures to be incorporated in such a regulatory system are described below.

Much of the conflict between public and commercial uses of Black Pot Park can be relieved by moving all commercial activities away from the area north

of the Hanalei Wharf. The river bank is better suited for such activities because there is more space available, and public activity there is less intense. The larger boats which currently use the state boat ramp next to the Wharf because they are incapable of traversing the shallow river mouth would be loaded offshore using smaller craft as shuttles. During periods when the river mouth is too shallow for even smaller craft to traverse, boat launching and passenger loading would occur on the seaward side of the river mouth. The prohibition of commercial boat landings north of the Wharf would reduce the landing access area for recreational and commercial boats delineated by the DOT's recent proposal. Further reduction of congestion at the Wharf area can be achieved by prohibiting any vessels from mooring in the waters fronting the park. The State Department of Transportation has proposed such a ban in its preliminary recommendations.

With respect to reducing potential conflict between commercial and non-commercial activities in the park as a whole, temporal segregation of activities is particularly well suited for Black Pot Park. Non-commercial and commercial use of the park on weekdays already follows a pattern that tends to minimize conflicts. Weekday use of the boating facilities by fishermen begins early in the morning, prior to the arrival of the commercial tour boat operators. Tour boat operators begin arriving about 7:00 A.M. Passenger loading for the morning tours are generally completed by 9:00 A.M. at which time the morning flurry of commercial boating activity at the park subsides. Meanwhile, non-commercial uses of the park gradually increases through the morning, peaking at around midday and declining through the early afternoon. It is during the early afternoon, from around 12:30 to 2:30 P.M., that the commercial boats either return for the day or reload for an afternoon tour. Coinciding roughly with the decline in the afternoon tour boat activities, non-commercial use of the park begins to increase through the "pau-hana" hours until darkness settles in. Although the afternoon tours return during this time, their level of activity is less intense because they are fewer in number than the morning tours and the landings occur periodically over a longer span of time.

Capitalizing on the existing pattern of activities at the park during weekdays, the hours for commercial operations should be limited to times when non-commercial activities are less intense. Thus, commercial tour operations at the Park should be limited to the hours of 7:00 A.M. to 4:00 P.M. This will assure that operators do not encroach on early morning fishermen or the afternoon "pau hana" hours when non-commercial activities at the park increase. Inasmuch as there are a few operators that currently offer "sunset" cruises and night diving experiences, these may be accommodated as exceptions, with no provisions for any additional evening operations. Emergency landings would be acceptable outside of designated operating times.

Another way to reduce conflicting activities is to enforce camping restrictions on weekdays. Unauthorized camping increases the potential for conflicting use by elevating non-commercial activity at the park.

On the weekend, the park observations indicated a much higher level of non-commercial activities in the afternoon. Moreover, camping permit data suggest that overall use of the park on weekends and holidays during the peak camping months from June to August will be significant. To minimize use intensity and to avoid potential conflicts with non-commercial uses, prohibition of commercial boating operations on weekends and holidays should be considered. Additional prohibitions may also be appropriate during special events or other times when intense public use of the park is anticipated.

To reduce congestion among commercial operators at the river bank, the time spent for passenger loading, and other preparations should be regulated. During the observations, most boats at the river bank averaged approximately 20 minutes to launch, prepare for passenger arrival, load passengers and depart for the tour. By contrast, boats loading passengers at the Wharf averaged approximately 50 minutes for preparations and passenger loading, with some boats recording stays of over an hour, and more than two hours in one case. Passenger unloading and clean-up after the tour also recorded

similar time differences between activities at the river bank and Wharf. Based on the observations, a time limit of between 20 and 30 minutes for the boats to be moored in the passenger loading area would appear to be reasonable.

Parking of commercial vehicles and those of clients in the Park should continue to be prohibited. Further, to minimize park use by clients parked in the private lot across Weke Road, a requirement for shuttling all passengers into the Park using properly licensed and insured vehicles should be considered. Currently, however, the private parking area relieves some of the traffic congestion in Hanalei Town, where passengers would otherwise park to board the shuttles taking them to the park.

Other means of reducing the perception of intense commercial use have already been established and should be continued. These include the prohibition against conducting business activities in the park, use of park premises for storing equipment, and use of park trash containers. Advertising, taking of reservations and collection of fees should be conducted in places of business complying with county ordinances such as zoning. Any equipment and supplies should be loaded directly onto boats without imposing on public areas, particularly picnic tables. Trash generated by commercial operators should be removed by them.

While it is acknowledged that there should be a limit on the volume of commercial boating activities at Black Pot Park, that limit could not be determined based on the carrying capacity analysis. Analysis of the resource, facility and service constraints indicated that they could be alleviated by eliminating commercial use of the parking lot and trash containers and relocating boating activities away from potential conflicts near the Wharf. Moreover, the primary concern, a perception of over-intense park usage, is highly subjective and not amenable to quantitative analyses required to formulate a ceiling on such activities.

As an alternative to quantitatively establishing a ceiling on commercial boating activities at the park, the State Department of Transportation's Ad Hoc Committee has formulated a limit based on the input of diverse interests. In its recent proposal, the DOT proposed a limit of 32 vessels to be registered for commercial tour operations at Black Pot Park, with a provision for accommodating all vessels operating at the Park and at Anini Beach Park when the rules become effective. The target limit would be achieved through attrition. The proposed limit is judged to be reasonable with respect to managing the impacts of commercial operations and the temporary excess of boats in the interim would be tolerable if the conditions discussed above are implemented. Perhaps restrictions that might be imposed in the interim, such as a ban on commercial operations during weekends or holidays could be eased upon achievement of the target limit.

The determination of an appropriate fee for the use of the park by commercial operators is fraught with inherent difficulties. On one hand, it could be argued that the commercial operators benefit the State and County by generating tax revenue and by promoting the visitor industry. On the other hand, it could be argued that the commercial operators are using public lands rent free for their own personal gain and are detracting from the intended public enjoyment of the park. While tax revenues can be estimated and complex benefit-cost analysis techniques are available to assign dollar values to the public benefit of a park and the cost that commercial operations may incur, such analyses require extensive data collection and can produce widely differing results depending on the assumptions used.

An alternative method to determine a fee is to establish a system of concessions and put them out for bid. This approach would let the market establish the fee rates. The problem with this approach is that, depending upon how a concession is defined, it could favor certain types of operations. For example, if each concession is based on a set number of landings, operators of larger boats would have an advantage as they could carry more passengers per landing. The DOT's Ad Hoc Committee has expressed

concern about favoring use of large boats at Hanalei Bay. Another problem is that if the DOT adopts its proposal to register all vessels currently in operation, then all current operators would be assured a concession regardless of what they bid. The concession approach assumes there are more bidders than there are concessions available.

Another alternative is to establish a nominal fee intended to cover expenses such as administering the regulatory system, including clerical costs and monitoring and enforcement and to compensate the public for any inconveniences. As a guide, the Department of Land and Natural Resources currently charges a fee of $10.00 per trip made from Black Pot Park. The County could base its fee on this example, perhaps adjusting the rate to reflect the passenger capacity of a boat so as not to favor those with larger capacities. Thus, for example, a six passenger boat could be charged a basic fee of $10.00 per landing while a boat with twice the passenger capacity would be charged more. These fees may not need to be directly proportional to passenger capacity, however, inasmuch as it could be reasoned that larger boats would be less likely to be filled to capacity on each trip.

With respect to the use of fees collected, consideration should be given to the members of the public who bear most of the inconveniences of the commercial operations. These include those who use Black Pot Park, or perhaps more generally, the frequent users of Kauai's North Shore beaches. Therefore, the beneficiaries of the revenues generated by the fees should also be these users. One approach for targeting these beneficiaries is to establish a special fund, devoted to the acquisition, development, or improvement of beach parks in the North Shore area.

Enforcement of conditions on the DLNR's revocable permit is a problem. The violations witnessed during the observations suggest that self-regulation is unlikely to be achieved. Therefore, an enforcement program with meaningful penalties should be established. Commercial operators allowed to use the park should be required to comply with permit requirements under the threat of losing that privilege. Also, to facilitate enforcement, all boats should be clearly marked with identifying vessel registration numbers. Strict penalties should be levied on persons conducting commercial boating operations without county permission.

Summary Recommendations

1. Establish a county-administered system to regulate commercial tour boating activities at Black Pot Park. The system will prohibit all commercial activities at the park except those specifically authorized through a concession permit system. A nominal fee of will be assessed for each boat trip (two landings), at a rate of $10.00 for boats with capacities of one to six passengers, $20.00 for boats with capacities of seven to 25 passengers and $30.00 for boats with capacities over 25 passengers.

2. Establish a special fund into which all fees collected through the permit system will be deposited. The special fund will be used exclusively for the acquisition and development of coastal parks along the North Shore of Kauai.

3. Limit the number of permits to be issued according to the Department of Transportation's ceiling on commercial boat registrations to be alloted for operations in Hanalei Bay.

4. Impose the following conditions on all permits issued:

    a. The beach area north of the Hanalei Wharf shall be closed to commercial tour boat loading and unloading activities.

b. All commercial tour boat passenger loading and unloading activities are confined to the river bank area. When the river mouth is too shallow for boats to traverse, the area seaward of the river mouth may be used.

c. Commercial tour boat departures are limited to the hours of 7:00 A.M. - 4:00 P.M. daily, except that a limited number of "sunset" cruises and night diving tours may be permitted to depart or land after the evening curfew.

d. All commercial tour boat passengers must be shuttled in and out of the park or directed to park in authorized private parking areas.

e. Commercial tour boat operator's vehicles and those of their clients are prohibited from parking in the Black Pot Park parking lot and the river bank area.

f. Use of the county picnic tables and trash containers by permittees and their clients is prohibited. Trash generated by commercial tour boating operations shall not be discarded in the trash containers in the park, but shall be removed from the premises by each respective operator.

g. Commercial tour boats loading and unloading passengers at Black Pot Park may remain in the park or in waters around the park for periods not exceeding 30 minutes.

h. All commercial tour boat operators shall conduct their business transactions (advertising, reservations, and collection of fees) at sites complying with county zoning and other ordinances.

i. Commercial tour boat operators shall provide verification of proper licensing and insurance for vehicles used to shuttle clients.

j. Violation of these conditions is cause for revoking the permit.

5. Reserve the right to prohibit commercial boating activities on weekends and holidays or during special events and to suspend such activities entirely if they jeopardize public health, safety, and welfare.

6. Upon achieving the Department of Transportation's target limit on boat registrations, reassess the need to continue prohibitions that may have been appropriate to manage more intense levels of commercial activity prior achieving that limit but which would no longer be necessary.

7. Consider a requirement to have all clients of commercial boat tour operators shuttled by bus or van to and from the park to reduce the potential for park usage prior to and after tours.

8. Consider terminating or phasing-out all permits, with adequate notice, if and when alternative private sites are developed to accommodate commercial boat operations.

9. Support the Department of Transportation's effort to develop and manage ocean zones in the shore waters of Hanalei Bay to reduce use conflicts between commercial users and recreational users. This would include but not be limited to the designation of swimming areas free of boats, mooring areas, and boat speed limits. In this regard, also:

   a. Endorse the Department of Transportation's proposed prohibition on mooring of vessels in the area north of the Wharf.

   b. Request the Department of Transportation to reduce their proposed boat access area offshore Black Pot Park to encompass only the area fronting the river mouth.

10. Request the Department of Transportation to strictly enforce the requirements for displaying vessel registration numbers on boats operated for commercial purposes.

11. Request the Department of Transportation to provide sewage pump-out and trash pickup services when significant numbers of vessels are moored in Hanalei Bay and particularly following such events as the Transpacific yacht race.

## B. ANINI BEACH PARK

### Management Needs

The problems perceived at Anini Beach Park involve recreational windsurfers and commercial windsurfing instruction. The activity level of other commercial operations including tour boating, charter fishing and kayaking tours operating from this park have not yet become as intense as commercial operations at Black Pot Park, and are not immediate concerns. Commercial windsurfing instruction is a problem involving usage of the park, and adjacent beach and nearshore waters. Most of the serious concerns about recreational windsurfing has centered on conflicts that occur offshore.

The carrying capacity assessment indicated significant resource constraints, and to a lesser degree, facility and service constraints. Also, significant community concern has been expressed about the intensity of visitor-oriented activity at this park which has historically been a favorite among residents. Resource constraints at Anini Beach Park are associated with conflicts/competition between windsurfing and other activities for offshore resources. Although no conflicts between recreational windsurfers and other activities were witnessed, many residents recount such conflicts. Experienced recreational windsurfers are capable of extending the range of their versatile craft into various ocean zones at Anini Beach, many of which are used for swimming, surfing and various forms of pole, spear and net fishing.

Commercial windsurfing instructors use the nearshore waters, valued for swimming and fishing, and which are traversed by boats using the county boat launching ramp at the park. During the Friday observation, clients of commercial windsurfing instructors occupied waters fronting the western portion of the park for most of the day and on several occasions occupied the area fronting the eastern portion. The activities of these commercial operations, particularly since they involve novice windsurfers, make it hazardous to swim and snorkel in these nearshore areas.

Potential facility constraints were identified with respect to parking and cesspool capacity. Parking data during the Friday observation suggest that a significant proportion of the available parking space was occupied by vehicles associated with commercial activities. Although no actual shortage of parking was observed, parking capacity would likely be exceeded if camping reaches the weekend and holiday levels recorded in 1985.

The cesspool capacity problem currently affects only one of the two cesspools following heavy park usage. As in the case of parking, the heaviest use is expected on weekends and holidays during the summer months. Observations indicate that commercial windsurfing lessons at Anini Beach Park are designed to take an entire day. In addition to the actual instruction and practice sessions, clients may enjoy picnic lunches, snorkeling, sunbathing and swimming. These day-long stays of operators and clients place greater loads on cesspool capacity than if stays were limited to actual windsurfing instruction and practice.

Although involving a much smaller clientele than the commercial tour boat operations at Black Pot Park, commercial windsurfing operations at Anini Beach Park have a greater potential for intensifying levels of park use. Whereas tour boat operations at Black Pot Park are confined to boat launching/landing and passenger movement, the windsurfing instructors use Anini Beach Park for extended periods. Park lawns and beach are used by instructors for group instruction, storage of equipment and by clients for sunbathing and beachcombing. Although the level of commercial activity observed did not appear to exceed the capacity of the park and beach to accommodate other uses, the western portion of the park was intensely used by commercial operations. The Sunday observation, when commercial activities were nearly absent, suggested that this portion of the park provides secluded relief from the busier eastern portion.

## Management Efforts

Currently, only the Department of Land and Natural Resources (DLNR) has directly exercised its authority to manage commercial activities at Anini Beach Park. The department requires all commercial tour boat operators to secure the same revocable permit required for tour boat operations at Black Pot Park. To date, they have not exercised their authority with respect to use of the beach by commercial windsurfing instructors. Recreational windsurfing is a permitted activity and is, therefore, not regulated.

The County's involvement with the management of commercial activities at Anini Beach Park currently extends to the issuance of the Special Management Area permit to the Department of Land and Natural Resources for the establishment of their revocable permit system.

The Department of Transportation (DOT) has proposed a system for regulating commercial windsurfing instruction, including requirements for the registration of commercial sailboards and certification of windsurfing instructors. The proposal also designates an area west of the county boat launching ramp for windsurfing and sets the maximum number of commercially-owned sailboards that can occupy this area at any one time at 24 boards. The Department has also proposed that all commercial tour boating operations at Anini Beach Park be relocated to Black Pot Park.

## Management Recommendations

The primary management needs at Anini Beach Park are to reduce the intensity of park usage by commercial windsurfing instruction and to reduce offshore conflicts. While it is recognized that windsurfing instruction enhances visitor experiences in support of the visitor industry, and although there is a need to protect opportunities for public participation in this sport, certain controls are warranted to protect other public recreational activities at the Park.

Management of commercial activities at Anini Beach Park can be achieved through a county-administered system regulating commercial windsurfing instruction. The system would establish a limit on the number of commercial operations allowed, segregate commercial from non-commercial activities by designating the locations and hours for commercial activities, and specify restrictions on activities that create the impression of intense park usage. Further, to the extent that commercial operations infringe on public enjoyment of the park, some form of compensation to the public should be provided.

With respect to specific measures to be incorporated in the County's regulatory system, valuable guidance is provided in the rules for self-governance adopted by the Kauai Windsurfing Association (KWA), as described in their letter of December 27, 1985 to the County of Kauai. The rules were formulated in response to increasing public concern about the windsurfing operations and represents a consensus of various windsurfing instructors. Many of the existing problems stem from non-compliance with these rules.

Spatial segregation of commercial windsurfing instruction from non-commercial activities is provided for in the KWA rules limiting offshore instruction to the area between the vehicular accessway along the western edge of the private dwelling, and Honu Point. Commercial vehicles are required to park 50 yards west of the vehicular accessway. Both of these requirements are appropriate as most of the non-commercial activities tend to occur in the eastern portion of the park where facilities for camping and picnicking are located. The offshore area designated by the KWA for windsurfing instruction is similar in extent to that proposed by the Department of Transportation in its draft administrative rules for Anini Beach. The KWA's parking restriction, however, should be supplemented by a requirement that all clients of windsurfing instructors be shuttled to and from the park in properly licensed and insured vans or buses, since client parking currently occupies much of the available parking space at the park.

Temporal segregation under the KWA rules limits windsurfing instruction during the summer months to two periods, one before noon and another after 2:30 P.M. The seasonal aspect of this limit is appropriate since it recognizes the intense level of public activity during the summer months (June, July and August), as confirmed by the camping permit data discussed earlier. The daily time limits during the summer months would minimize conflict with the midday increase in non-commercial activity recorded by the park observations. In addition, however, a 5:00 P.M. curfew should be imposed to minimize conflict with late afternoon park users such as persons arriving after work, campers arriving to set up camp, and fishermen laying nets for the night. A starting time of 9:00 A.M. would also be appropriate to minimize conflicts with the launching of fishing boats and gathering of nets. During the rest of the year, the midday recess would be unnecessary, but the evening curfew should be advanced to 4:00 P.M. to account for less daylight available. A prohibition of commercial activities on weekends and holidays should also be considered as public usage of the park is greater then, particularly in the summer.

Toward reducing the perception of intense park usage, the KWA rules forbid commercial signs (except on commercial vehicles), business transactions and rental equipment distribution within the park. Such activities should be limited to places of business that comply with applicable county ordinances, including zoning.

Further reduction in park usage should be sought by restrictions on specific activities. First, land-side instruction, including the use of simulators, should be limited to appropriate business sites outside of the park. As an alternative, an inconspicuous area of the park could be set aside for land-side instruction and simulators. During the observations, land-side group instructions were conducted in the conspicuous grassy area east of the private dwelling, on the beach and in the eastern portion of the park.

Second, the only commercial activities conducted in the park should be windsurfing instruction. Commercial activities such as snorkeling should

not be offered nor should food or beverage be served at the park. This restriction is aimed at curtailing the all-day outings currently offered by some windsurfing operations.

Third, unused equipment should be removed or stored on vehicles rather on the park lawns and beaches, and use of park picnic tables and trash containers should be prohibited. These areas and facilities are intended for public use and should be so reserved.

Toward reducing offshore conflict, the KWA rules limit the number of student windsurfers in the water to four at any one time and requires that they be taught to drop their sails to stop their boards while boats traverse the windsurfing area. Both requirements would greatly reduce activity conflicts in the water. The four sailboard limit, however, is currently deemed economically unfeasible for commercial instruction. The Department of Transportation, based on its deliberations with the Ad Hoc Advisory Committee, has recently proposed a limit of 24 commercial sailboards to occupy waters offshore the park at any one time. This limit, combined with a restriction limiting commercial sailboards to the west side of the county boat launching ramp and the temporal restrictions discussed earlier would significantly reduce the potential for conflict in the water.

The concept of charging a fee for windsurfing instructors to conduct lessons at Anini Beach Park is based on the notion that no one should accrue personal economic gain from use of a public facility, without compensating to the public for such use. This principle is even more valid if the use detracts from opportunities for public enjoyment as windsurfing instruction does at Anini Beach Park. Determination of an appropriate fee may be done through the establishment of concessions, for which windsurfing instructors would bid. This would allow the market to determine the value of using the park.

The number of concessions allowed would be determined by assessing the number of lessons that could be conducted on each day given the

aforementioned time limits and maximum sailboard counts. The KWA could provide guidance in making this determination with regard to what would constitute an economically viable concession.

With respect to the use of fees collected, consideration should be given to the members of the general public who bear most of the inconveniences of the commercial operations. Those who would be most heavily impacted are those who use Anini Beach Park, or perhaps more generally, those who use Kauai's North Shore beaches. Therefore, the beneficiaries of the revenues generated by the fees should be these park and beach users. One approach for targeting these beneficiaries is to establish a special fund, devoted to the acquisition, development, or improvement of beach parks in the North Shore area.

The violations of the KWA rules witnessed during the observations suggest that compliance will not be achieved without government enforcement of the proposed rules. Therefore, an enforcement program with meaningful penalties should be established. Commercial operators allowed to use the park should be require to comply under the threat of losing that privilege. To facilitate enforcement, all sailboards should be clearly marked with identifying vessel registration numbers. Strict penalties should be levied on persons conducting commercial operations without a concession permit.

Commercial tour boating at Anini Beach Park is currently not a significant activity. Under the DOT's recently proposed administrative regulations, all such boating will be prohibited at Anini Beach Park and relocated to Black Pot Park. This provision should be supported since it would further reduce the level of commercial activity at Anini Beach Park.

The concerns about recreational windsurfing focus on offshore activities and, therefore, are within the jurisdiction of the DOT. Under the DOT's recently proposed administrative rules, both recreational and commercial windsurfing would be prohibited in the swimming zone fronting the eastern portion of the park, from its eastern boundary, to the vehicle accessway

west of the private residence. The area fronting the western portion of the park, from the vehicle accessway to Honu Point would be designated for commercial and recreational windsurfing. In this area other vessels would give way to windsurfers.

While the DOT's ocean zone restrictions should alleviate the most pressing conflicts in nearshore waters, particularly among windsurfers, swimmers and boaters, the potential for conflicts with various traditional fishing activities are unaddressed. Resolution of such conflicts through governmental laws or rules would pose problems with regard to detecting violations in the vast offshore area where conflicts would occur.

Instead, resolution of these conflicts should be pursued through more courteous and safe participation by all parties. Since windsurfing is a relatively new sport, knowledge of how to avoid conflicts with other ocean users has yet to acquired by many participants. In this regard, the KWA has taken a lead in disseminating such information to its members. The DOT's Ad Hoc Committee has also examined this issue. Perhaps a concerted effort to formulate and disseminate informal guidelines for safe and courteous pursuit of windsurfing and other offshore activities would be appropriate.

In the long-term, activity conflicts at the park can be reduced by dispersing users currently concentrated in the small eastern portion. New camping facilities and picnic areas could be developed in the broad western portion to relieve the present congestion that heightens the perception of intense park use during the busy summer months and restore the "rural" atmosphere for which this park is traditionally known. Further dispersal of park activity could be achieved by relocating the county boat ramp to the western portion of the park and phasing out use of the existing ramp. Though not intensely used, the existing ramp creates a potential conflict since it is located in an intensely used part of the beach.

Summary Recommendations

1. Establish a county-administered system to regulate commercial windsurfing instruction at Anini Beach Park. The system will prohibit all commercial activities at the park except those specifically authorized through a concession permit system. Depending on demand, public bids could be solicited. Prohibited commercial operations would include but not be limited to commercial tour boat operations, snorkeling, picnicking, rental of equipment, and other services associated with the commercial windsurfing operations. The prohibition will apply to any commercial operation which takes, transports, delivers or causes clients to assemble at Anini Beach Park for use of the recreational facilities there.

2. Establish a special fund into which all fees collected through the permit system will be deposited. The special fund will be used exclusively for the acquisition and development of coastal parks along the North Shore of Kauai.

3. The number of concessions to be established shall be determined in consideration of the maximum number of sailboards allowed in the water at any given time (24), and the following conditions which will be imposed on all concessions:

   a. Commercial windsurfing instruction will be confined to the hours between 9:00 A.M. and 12:00 noon and between 2:30 P.M. and 5:00 P.M. during the months of June, July and August and between 9:00 A.M. and 4:00 P.M. during the rest of the year.

   b. Park areas may not be used for storing of equipment or conducting instructions.

   c. All commercial windsurfing instruction other than those conducted in the water must be conducted at a place of business complying

with applicable zoning regulations. Land-side instruction, including the use of simulators, may be allowed only if a specified area is designated by the County.

d. Commercial activities shall be confined to providing windsurfing instruction. No snorkeling, picnicking or other service shall be provided.

e. Serving of food or beverage by commercial windsurfing operators shall be prohibited at the park.

f. Use of the county picnic tables and trash containers by commercial operators for commercial purposes shall be prohibited. Commercial operators must remove all of their trash from the park premises.

g. All clients and employees associated with commercial windsurfing operations must be shuttled into and out of the park.

h. Each operator may park one vehicle in the parking area west of the private dwelling for the purpose of storing unused equipment.

i. All unused equipment must be stored in vehicles or off site.

j. No business transactions (reservations, collection of fees, and customer parking) are permitted on park premises. All commercial windsurfing operators shall conduct their business transactions at their respective places of business complying with county zoning and other ordinances.

k. Commercial windsurfing operators shall provide verification of proper licensing and insurance for vehicles to be used in transporting employees and clients.

1. Violation of these conditions is cause for revocation of the concession permit.

4. Consider prohibiting commercial windsurfing instruction on weekends and holidays since public recreational activity in the Park is more intense during these periods.

5. Support the Department of Transportation's effort to develop and manage ocean zones in the near shore waters at Anini Beach to reduce use conflicts between and among commercial uses and recreational uses. This would include but not be limited to the designation of swimming areas free of boats, vessels and sailboards, and windsurfing instruction areas. In this regard:

   a. Support the Department of Transportation's proposed area restrictions for Anini Beach.

   b. Request the Department of Transportation to strictly enforce the requirements for displaying vessel registration numbers on sailboards operated for commercial purposes.

   c. Request the Department of Transportation to formulate and disseminate informal guidelines for safe and courteous participation in windsurfing and other activities at Anini Beach Park.

6. Formulate plans for the future development of Anini Beach Park. Such plans should consider additional camping and picnicking facilities in the western portion of the park, relocation of the boat launching ramp to the western portion of the park, and creation of an area for windsurfing instruction concessions.

## C. HAENA COUNTY PARK

### Management Needs

Except for the lunch wagon operation, which has been permitted by the County through existing ordinance, no other commercial activities were observed at Haena County Park. Therefore, any conflict between commercial and recreational users is non-existent or insignificant at this time. To protect public use and enjoyment of this park, all new commercial uses, particularly those of a recreational nature, should be prohibited. In the future, should a demand for commercial use develop, the County may wish to consider instituting permit procedures similar to those recommended for Black Pot and Anini Beach Park.

The current cesspool load, particularly with regard to summer-time use by campers and sightseeing motorists appears to exceed the standard capacity estimates, suggesting a need to carefully monitor the situation. Preparation of a technical study to determine if additional cesspool capacity is required should be considered.

### Summary Recommendations

1. Aside from the existing lunch wagon operation, prohibit all commercial recreation operations at Haena County Park.

2. In the future, if there is a demand for commercial use of the park, consider establishment of a permit system to regulate such uses.

3. Prepare a study of existing cesspool capacities based on summer-time usage rates.

## D. TUNNELS BEACH

### Management Needs

The problems at Tunnels Beach result from the high intensity of recreational activities occurring there; many of the activities are generated by commercial operations. The carrying capacity assessment, based on current use, identified serious constraints in parking, nonexistent support facilities and capacity of nearshore waters to accommodate boat traffic and rescue services.

Much of the activity at the Beach is associated with the success enjoyed by single tour boat operator whose use of the Beach for landing boats was permitted by the Department of Land and Natural Resources (DLNR) over ten years ago. More recently, however, the area has seen additional use by other tour boat operations which moor offshore, commercial diving and snorkeling instructions and tours, visitors directed to the Beach by companies renting snorkeling and other recreational equipment, and the beachgoing public. Currently, the intensity of use greatly exceeds the capacity of the area to support it.

The problems at Tunnels Beach can be resolved by reducing the volume of activities contributing to the problems, or increasing the capacity of the area to accommodate present usage through the construction of support facilities such as parking, rest rooms and showers. The former is a jurisdictional issue while provision of the latter would require budgetary, land use and community considerations.

Unlike at Black Pot Park, Anini Beach Park and Haena County Park, which are owned and operated by the County, the staging area for activities at Tunnels Beach is not within a county park. The beach area seaward of the vegetation line is state land while the area landward of the vegetation line is privately owned. Therefore, the County has no basis for establishing a permit system as was recommended for Black Pot and Anini Beach Parks.

At Tunnels Beach, the DLNR is responsible for managing uses of state land and the Conservation District, which includes the Beach and the adjacent private land, while the DOT has the authority to control uses in the waters fronting the Beach. Except for the single commercial tour boat operation, the DLNR has not specifically authorized the use of state land or of the Conservation District by the various commercial operations. The DOT, on the other hand, is examining potential controls over the various activities occurring in the offshore water through its Ad Hoc Committee. County concerns at Tunnels Beach are to maintain public access through its road right-of-way and to assure public use and enjoyment in accordance with the previously presented objectives and policies for the use of public beaches along Kauai's North Shore.

Toward addressing the problem of inadequate support facilities, the DLNR should consider controls over existing uses, for example, limiting commercial activities using state land. Alternatively, the State could consider acquiring portions of privately owned land and providing facilities to support the commercial and public beach activity that is allowed.

Toward managing offshore conflicts, the existing mixture of snorkelers and swimmers with boats is potentially hazardous, indicating a need to segregate activities. The DOT, for example, could establish mooring areas further offshore, away from frequented nearshore snorkeling areas, and post appropriate warning signs onshore and in the water identifying boat approaches. In addition, specific times for landings and launches from the Beach could be established and posted on signs to better forewarn snorkelers and swimmers of potential dangers. The frequency of disturbances caused by landings can be reduced by launching and landing boats in groups. Appropriate warnings should be provided to snorkelers and swimmers prior to such group landings.

Summary of Recommendations

1. Request the DLNR to control commercial activities occurring at Tunnels Beach so as to be more compatible with the non-availability of support facilities or, alternatively, to provide support facilities and services to accommodate the permitted level of use.

2. Coordinate with the Department of Transportation to assure that public users of the right-of-way are provided with a safe and enjoyable recreational experience in nearshore waters.

## E. KEE BEACH

### Management Needs

Observations at Kee Beach indicate high levels of public usage that exceeds available facilities and services for parking, cesspool, rescue and police surveillance.

Inadequate parking is the most obvious problem at Kee Beach. As discussed earlier, beach users and hikers already resort to parking alongside the highway at all hours of the day. This situation is potentially hazardous, especially for persons who must park their cars along the roadside and then walk in the highway itself, to the Beach or trailhead.

While cesspool overflow was not indicated, the volume of sightseers using the road end as a rest stop, in addition to use by beachgoers and hikers, suggests a need to plan for additional rest room and cesspool capacity.

Rescue needs relate to the high volume of water activities observed at this beach. Participation in water activities at Kee Beach was the highest among the five study areas, with as many as 38 people observed in the water during the peak hourly observation on Sunday.

Moreover, Kee Beach saw more people in the water throughout both days of observation than any of the other study areas. Judging by the proportion of rental cars in the parking area, a high percentage of these swimmers, snorkelers, and waders were visitors, many probably having little experience with oceanic conditions. The safety concern is therefore significant, more so than at Tunnels Beach, which recorded the second highest level of water activity, but had a notable presence of trained personnel and boats capable of ocean rescue that were associated with commercial operations.

Rougher winter sea conditions increase the potential hazards at Kee Beach which lacks an extensive reef to protect it from ocean swells. Toward

addressing this safety concern, a lifeguard should be stationed at the Beach and an emergency telephone provided that could serve beachgoers as well as hikers on the Kalalau Trail.

The benefits of surveillance in reducing thefts in the parking area has been demonstrated in previous summers by the County of Kauai Police Department through the establishment of a visitor information booth. This program should be continued, with assistance from the State, if necessary.

Summary Recommendations

1. Consider establishment of lifeguard services at Kee Beach during the busy summer season and provide clear warning signs of the dangers of high seasonal surf.

2. Install an emergency telephone to serve Kee Beach as well as the Kalalau trailhead.

3. Request the State Department of Land and Natural Resources to expedite development of planned parking areas and rest rooms to meet current and projected needs.

4. Request the State Department of Land and Natural Resources to assist in the provision of surveillance services at the parking area.

## F. IMPLEMENTATION AND COORDINATION

### Implementation

The recommendations discussed in this Chapter are guided by the Objectives and Policies for Managing County Shoreline Parks and Accessways on the North Shore of Kauai, which were presented in Chapter V. They are intended to address the types and volumes of commercial and recreational activities documented in Chapter III, Resources for various parks and beaches on the North Shore of Kauai. In the future, however, the types and volumes of activities at these recreation areas may change for a variety of reasons. Therefore, it is important that implementation of these recommendations be responsive to such changes.

At Black Pot Park and Anini Beach Park, a concession permit system is recommended as the primary means for managing the high volume of commercial activities that have developed at these parks within the past few years. The need for the permit system will continue as long as these parks provide the only viable staging area for these commercial operations and there is a significant demand for these operations. If the demand for commercial activities at these parks should diminish or alternative sites for staging these activities are established, the need for the concession permit system should be assessed and alternative measures for managing any new concerns should be considered.

Recently, there has been increased discussion regarding establishment of a privately operated passenger loading facility in the Hanalei area which could relieve the current demands on Black Pot Park for this purpose. Should such a facility be established, the County must determine if the recommended concession permit system should be implemented. Toward making this determination, the County must first consider the potential impacts of the facility on the environment, recreation and the surrounding community. This would be accomplished through zoning and other County land use controls. The County Special Management Permit would also be required if

the facility would be located within the Special Management Area. Other state and federal permits may also be required.

These permits would assure consideration of potential impacts that were addressed in this plan, such as those on public recreation, vehicular traffic and parking, and its compatibility with the neighborhood. The SMA permit would additionally consider the facility's impacts on public recreation, the environment, historic resources and aesthetics. The permits would be appropriately conditioned to assure that adverse impacts of the facility are be minimized. These conditions could be similar to those proposed for the recommended concession permit.

If the impacts of the facility are deemed acceptable, the County would then determine whether or not Black Pot Park would continue to accommodate commercial boating. Factors relevant in this determination may include the amount of relief the private facility would provide, i.e., whether all or only a portion of the operations at Black Pot Park could be relocated there; and, the disposition of operations that could not be accommodated at the private facility. Limits on the number of boating operations allowed should be coordinated with those proposed by the State Department of Transportation in its rules for the area.

The recommendations for Haena Beach Park are based on its current use by the general public. The restriction on commercial operations is intended to assure that none will be established without careful deliberation by the County. It is conceivable, however, that future commercial use could be considered if a significant demand for such use develops and alternative sites are unavailable. At such time, continuation of the restriction on commercial operations may be reconsidered and an appropriate management system formulated.

The recommendations for Tunnels Beach and Kee Beach are directed at the State Department of Land and Natural Resources for implementation since these areas are outside of the County's management jurisdiction. They are

offered based on observations of current beach usage and without consideration of development plans that may have been or will be formulated for these areas and which may provide alternative solutions.

Coordination

Among the recommendations presented, only the County concession permit system is of a magnitude requiring significant coordination among the various county and state agencies to achieve effective management of recreational activities. The recommended county concession permit system for Black Pot Park and Anini Beach Park would join the existing efforts of the Department of Land and Natural Resources (DLNR) and the Department of Transportation (DOT) to manage commercial recreational activities on the North Shore of Kauai. If these efforts are not coordinated, the resulting system of required permits could become extremely complex for the applicant.

Currently, the DLNR administers a revocable permit process for use of state land seaward of the vegetation line at Black Pot Park and Anini Beach Park by commercial boat tours. As mentioned earlier, this permit process was established as an emergency measure in response to concerns raised by the public. Its intent is to monitor commercial activities occurring in these areas. Commercial windsurfing instruction at Anini Beach Park is not managed.

To establish their permit system, the DLNR first applied for and was granted a Special Management Area (SMA) permit by the County of Kauai. This permit is scheduled to expire in June, 1987 or when a permanent system for managing commercial activities in county parks can be established. When it expires, applicants could conceivably be required to apply individually for SMA permits before they apply for the DLNR revocable permit.

Moreover, in establishing the revocable permit system, the DLNR also waived their Conservation District Use Application (CDUA) which would ordinarily be required for activities in the Conservation District (state lands and

submerged lands seaward of the vegetation line). Should the revocable permit system be abandoned or converted to a permanent system, the requirement for the CDUA permit could be reinstated. If this happens, a CDUA could conceivably be issued to cover all of the boating operations, or each permit applicant could be required to individually apply for a CDUA, a process that requires a public hearing and decision by the Board of Land and Natural Resources.

The State DOT is also proposing a permit process as part of its Management Plan for Hanalei Bay and North Shore, Kauai. The permit would be required of all guides leading boat tours along the Na Pali Coast and all windsurfing instructors offering lessons at Anini Beach Park. This permit would be required in addition to the U.S. Coast Guard License to Operate or Navigate Passenger Carrying Vessels, which is required of all tour boat pilots.

The recommended county concession permit would add yet another layer to the already complex permit system. This layering of permits threatens to complicate the approval process for commercial operators and increases the uncertainty for obtaining approval and ascertaining the long-term prospects for continued operation. Consequently, investment risks would rise, detracting from the economic benefits these operations have to offer the visitor industry of Kauai. To assure that the potential complex of permits does not unnecessarily burden commercial operators, several alternative coordination measures were examined. These alternatives considered both implementation and non-implementation of the concession permit system, as discussed below.

Management Alternative 1 - The first alternative is to maintain the status quo. The County would not implement its concession permit but, instead, would extend its SMA permit to the DLNR which would continue its revocable permit system. Toward implementing the recommendations contained in this Chapter, however, the County could impose upon the SMA permit conditions similar to those it would have included in its concession permit. The revocable permit would essentially maintain control over the landward side

of the shoreline. Control over activities on the seaward side of the shoreline would be established when the DOT implements its permit system for tour boat operators and windsurfing instructors. The primary advantage of this alternative is to avoid adding the county concession permit as another layer to the two state permits. If the CDUA permit waiver is lifted, however, another permit layer could still be added.

Among disadvantages of this approach is the absence of County control over land-side activities of commercial windsurfing operators at Anini Beach Park since such operators are not currently regulated by the DLNR. On the other hand, the limit on the number of commercial sailboards the DOT would allow at Anini Beach and the designation of offshore windsurfing areas could significantly reduce the impact of windsurfing instruction at the park. Another disadvantage is that no fees would be collected by the County and no special fund would be established to compensate county park users through the acquisition and improvement of beach parks along the North Shore.

Management Alternative 2 - A second approach would involve the establishment of the DOT's proposed permit as the primary permit for commercial operators and subsequent termination of the DLNR revocable permit. The county concession permit would not be implemented. The primary advantage of this approach would be the reduction of permits to the single DOT permit, providing that the DLNR continues to waive the CDUA permit and the County does not require each operator to apply for an SMA permit. The DOT may achieve this by securing a "blanket" SMA permit from the County and a CDUA or revocable permit from the DLNR so that commercial operators could avoid having to apply for these permits individually.

This approach offers a significant degree of control over commercial activities as a result of conditions that may be placed on permit approvals, as well as through the DOT's contemplated controls over commercial tour boat landing sites at Black Pot Park, and the limitation on the number of commercial tour boats. Moreover, as mentioned in the preceding alternative, the DOT's control over commercial windsurfing activity offshore of Anini

Beach Park could significantly reduce recreational impacts there. The primary disadvantage of this alternative is the lack of direct control the DOT would have over commercial activities in county parks and on land-side activities, in general. Moreover, there would be no special fund to compensate non-commercial users of county parks. On the other hand, since county parks would be impacted by the commercial operations, should the DOT assess fees from operators, a portion of those fees could be passed on to the County for acquiring park land or providing park improvements.

Management Alternative 3 - The third and proposed approach combines the DOT's offshore control with direct management of the commercial activities in county parks through the county concession permit. Simplification of the permit system could be achieved by phasing-out the DLNR's revocable permit. Implementation of this approach would require, first, that the County Department of Public Works (DPW) apply for the County SMA permit to establish its concession system at Black Pot Park and Anini Beach Park, both of which are in the County SMA. This action would be similar to what the DLNR did in establishing its existing revocable permit system, and will assure that commercial operators will not be required to apply for the SMA permit individually. The existing SMA permit issued to the DLNR would be nullified upon approval of the new SMA permit to the County DPW.

Second, the County DPW would apply to the DLNR for permission to manage commercial activities traversing state land (seaward of the vegetation line). The request to manage activities on state land could be granted in the form of a permit, similar to the revocable permit currently issued by the DLNR to individual tour boat operators. This permission will be sought with the understanding that the DLNR will abandon its revocable permit system in favor of the County's concession permit system. Hence, the DLNR will no longer issue the revocable permit to individual commercial operators.

Third, the County DPW will apply to the DLNR for the CDUA. The County's request for approval would be sought in conjunction with its use of state

lands which lie in the State's Conservation District. This action would address the CDUA requirement currently waived for the existing revocable permit system. If the CDUA is granted, it will assure that commercial operator's will not be required to file for the CDUA individually.

Through these three actions by the DPW, the County could assume all responsibility for managing commercial operations in its parks and on the strip of state land seaward of the vegetation line that commercial operators must traverse to access the sea.

Responsibility for managing boating and other recreational activities in the ocean will, appropriately, continue to be the responsibility of the DOT and the U.S. Coast Guard. In this regard, the County would work closely with the DOT on its Ad Hoc committee to assure that the concession permit system and the DOT's permit for tour boat operators and windsurfing instructors are coordinated.

The primary advantages offered by this approach are the special fund which would be established to acquire park land and improve existing parks, and the direct control that the County could exert over activities occurring in its parks. The potential disadvantage is the extension of County control over boating activities which have traditionally been within State jurisdiction, an area in which the County lacks expertise.

Management Alternative 4 - The fourth management alternative would apply only to Black Pot Park and only if a private passenger loading facility were to be developed to accommodate the commercial boating operations currently using Black Pot Park. Discussions held by the DOT's Ad Hoc Committee suggest that such a facility may be located along the Hanalei River or at Puu Poa Marsh on the north bank of the Hanalei River mouth. It would likely be comprised of a boat launching ramp or boat storage area, vehicle and boat trailer parking area, rest rooms and maintenance facility.

Provided that various environmental, recreational, and community concerns can be addressed, and its size is adequate, such a facility could provide an alternate site for conducting commercial boating activities on the North Shore. With the availability of such a facility, the County could justify the closure of Black Pot Park to commercial boating operations and thereby resolve the problems currently caused by those operations.

With regard to coordinating permit approvals, the developer of the facility would be responsible for obtaining any necessary land use permits such as the County Special Management Permit and any other federal, state and county permit. Thus, individual operators would not be required to secure these approvals. Control over the number of operators allowed at the facility could be coordinated between the County SMA permit and the DOT rules governing commercial boating in the area. While this alternative would not generate revenues through a concession permit fee, the absence of commercial operations in Black Pot Park would assure that public recreation would not be infringed upon and, thereby, obviate the need for compensation.

Proposed Concession Permit System

Assuming that Management Alternative 3, the recommended county concession permit system is pursued, this section elaborates on how the system could be established.

The authority to manage commercial activities in county parks such as Black Pot and Anini Beach Park is vested with the County's Department of Public Works which administers all county parks. The existing management system is established under Article 3. Peddlers and Concessionaires of the County of Kauai Ordinances. This ordinance is comprised of several sections, one which provides for use of county parks and recreational facilities, another which prohibits peddling on beaches, and a third governing peddling at Spouting Horn.

Section 23-3.1 governs the use of county facilities such as parks, neighborhood centers, swimming pools, tennis courts, athletic fields and stadiums. Designed primarily for single events, this section prohibits certain activities, provides an operating policy and establishes fees and deposits with notable differences in rates for classes of activities such as state or county-sponsored events, events sponsored by non-profit organizations at which no admission is charged, and private events where admission is charged. The highest fees and deposits are charged for privately sponsored events.

Section 23-3.2 prohibits peddling on the beaches of Kauai. Peddling is defined broadly to include the "selling, offering for sale, soliciting orders for or inviting attention to or promoting" virtually any merchandise, property or service.

Section 23-3.3 establishes a concession system for Spouting Horn Park to better control the growth in peddling activities that had occurred there.

In contrast to the types of activities currently managed by the ordinance, the commercial recreational operations addressed by this plan involve business transactions conducted outside of the park while the park is only used to stage the activity or provide access the shoreline. At both Black Pot and Anini Beach Park, the conduct of business within the park would be prohibited. Therefore, inasmuch as peddling, as defined in the ordinance, would not occur within the park the existing controls over peddling would not apply.

Although some aspects of Section 23-3.1 apply with respect to private use of a county facility, the overall intent of offering county facilities for single events does not lend this section to managing commercial tour boating or windsurfing instruction.

Toward establishing the proposed concession permit system to regulate commercial tour boating operations at Black Pot Park and windsurfing

instruction at Anini Beach Park, a new section within Article 3 would be appropriate.

Generally, the section would prohibit all commercial operations at county beach parks in the Hanalei District, except those specifically permitted by the County Engineer of the Department of Public Works. The County Engineer would be further empowered to collect fees and to adopt rules and regulations further detailing conditions of the concession permit. The fees for tour boating operations at Black Pot Park would be based on a schedule reflecting the passenger capacity of the boat used while fees for windsurfing instruction concessions at Anini Beach Park would be determined by bid. All fees collected would be deposited in a special fund to be used for acquiring or improving county beach parks in the Hanalei District. Penalties, which would include permit revocation, would be established for violators of the section.

Permit conditions for the use of Black Pot Park and Anini Beach Park would be reserved for rules and regulations to be adopted by the Department of Public Works. The rationale for excluding such detailed permit conditions from the ordinance is to allow for adjustments to be made by the Department of Public Works without the necessity of amending the ordinance.

Summary Recommendations

1. Through an amendment of Article 3. Peddlers and Concessionaires, County of Kauai Ordinances, prohibit all commercial recreational operations at county beach parks in the Hanalei District, except those which are specifically authorized through a county concession permit system governing such operations at Black Pot Park and Anini Beach Park. The concession permit system will be administered by the County Department of Public Works pursuant to the amended Article 3 and Rules and Regulations adopted by the Department.

2. Seek to coordinate the concession permit system with the State Department of Land and Natural Resources so as to minimize the number of individual permits that each potential commercial operator must obtain. In this regard, the County Department of Public Works shall seek approval of the following prior to establishing its concession permit system:

   a. The County Special Management Area Permit (the existing SMA permit to the State Department of Land and Natural Resources will be nullified);

   b. Permission from the State Department of Land and Natural Resources for managing activities traversing state land to access the shoreline (the existing revocable permit system will be abandoned); and,

   c. The State Conservation District Use Application (the existing waiver of the CDUA will be lifted).

3. Continue to work with the State Department of Transportation through the Ad Hoc Advisory Committee to assure coordination of procedures and requirements for the county concession permit system and the Department's proposed system for managing commercial and recreational activities in the shorewaters of Hanalei Bay and the North Shore of Kauai.

## REFERENCES


County of Kauai, General Kauai Plan, 1970.

County of Kauai, Planning Department, North Shore Development Plan Update, 1980.

State of Hawaii, Department of Land and Natural Resources, State Recreational Functional Plan, 1984.

State of Hawaii, Department of Planning and Economic Development, The Hawaii State Plan, 1978.

State of Hawaii, Department of Planning and Economic Development, Ocean Management Plan, 1985.

State of Hawaii, Department of Land and Natural Resources, State Recreation Plan, 1980.

U.S. Army Corps of Engineers Pacific Division, Manoa Mapworks, Kauai Coastal Resources Atlas, 1982.

State of Hawaii, Ad Hoc Committee for a Management Plan for Hanalei Bay and North Shore, Kauai, Preliminary Recommendations for a Management Plan for Hanalei Bay and North Shore, Kauai, 1986.

County of Kauai, Aotani and Hartwell Associates, Inc., Kauai Parks and Recreation Master Plan, 1978.

## PERSONS INTERVIEWED

### COUNTY OF KAUAI

Mr. Gordon Shibao, Department of Public Works, County of Kauai.

Chief Damien Victorino, Fire Department, County of Kauai.

Deputy Chief Fritz Klattenhoff, Police Department, County of Kauai.

### STATE OF HAWAII

Mr. Dave Parsons, Boating Manager, Department of Transportation, State of Hawaii.

Mr. Sam Lee, District Land Agent, Department of Land and Natural Resouces, State of Hawaii.

Mr. George Niitani, District Parks Administrator, Department of Land and Natural Resources, State of Hawaii.

Mr. Harold Eichelberger, Mr. Ted Inouye, and Mr. Charley Futenma, Department of Health, State of Hawaii.

Mr. Don Heacock, Division of Aquatic Resources, Department of Land and Natural Resources.

### U.S. GOVERNMENT

Petty Officer Randall, Marine Safety Office, U.S. Coast Guard.

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