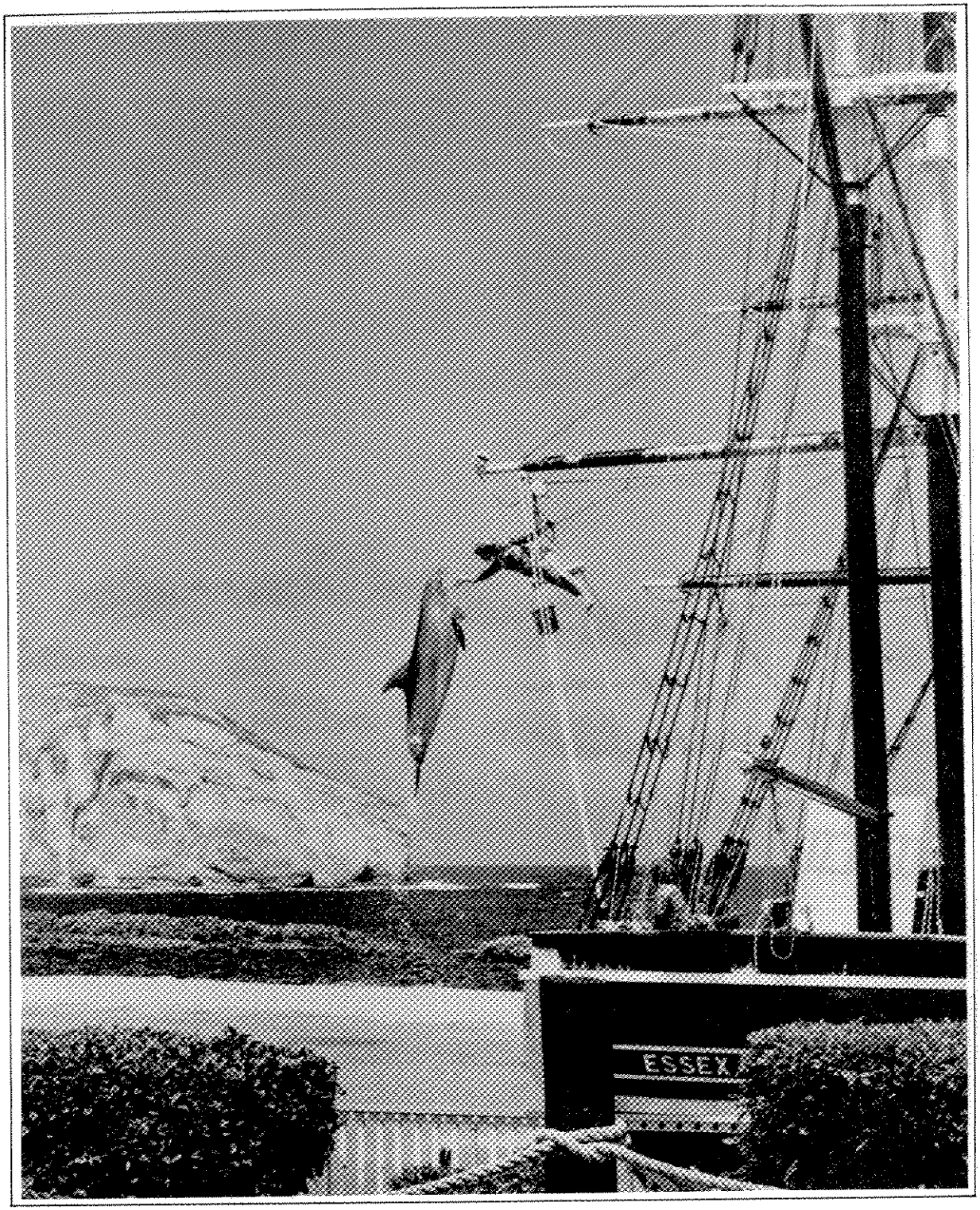


Environmental Impact Statement
SEA LIFE PARK

Prepared by: EDAW inc.

PROPOSED EXPANSION OF THE

SEA LIFE PARK

ENVIRONMENTAL IMPACT STATEMENT

Prepared for Submission To:

City and County of Honolulu
Department of Land Utilization

For:

Sea Life Inc.

By:

EDAW inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813

April 1981

ENVIRONMENTAL IMPACT STATEMENT

PROJECT SITE

TMK:	4-1-14:13
Lot Area:	61.662 Acres
Existing Land Use:	Park
Zoning:	P-1 Preservation
DLUM:	Park and Preservation
State Land Use District:	Conservation

PROPERTY OPERATION

Sea Life Inc. (lessee)
Greg Gillette (Executive Vice President and General Manager)
Makapuu Point
Waimanalo, Hawaii 96795
Phone: 259-7933

PERSON SUBMITTING

Duk Hee Murabayashi
EDAW inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813
Phone: 536-1074

TABLE OF CONTENTS

EXHIBITS

APPENDICES

I. SUMMARY

Sea Life Park (SLP) proposes to build seven new exhibits and related facilities to accommodate an estimated increase of about 500,000 annual visitors by completion of the proposed project about 1990. The proposed expansion will be located in the present vacant area within the SLP compound maintaining a landscaped buffer of 75 feet to 230 feet width between Park activities and Kalanianaole Highway.

The proposed new exhibits and related facilities are as follows:

1. Bar Renovation/Restrooms
2. Sea Lion Stadium
3. Porpoise Pool with Northwest Hawaii Island Exhibit and Bird Sanctuary
4. Touch Tank
5. Penguin Exhibit
6. Whaler's Village Complex
7. Entrance Upgrading
8. Parking Expansion
9. Hawaiian Fishpond/Aquaculture Exhibit
10. Restaurant
11. Pathways Relocation
12. Shark Tank
13. Saltwater Handling Facility
14. Sewage Treatment Facilities

The expansion is necessary to accommodate the anticipated visitor increase. The objective is to operate a recreational and educational attraction in a healthy, park-like atmosphere commensurate with the best features of first-class public or private attractions of a similar nature in the U. S., a condition of the State of Hawaii lease.

The expansion is consistent with the State Conservation District and the County's General Plan, Detailed Land Use Map, Proposed Development Plan and Special Management Area policies. All proposed facilities will comply with all necessary government codes and regulations.

In general, the proposed SLP expansion project would have limited effects on the physical and socioeconomic environment. Impacts on geological resources, soils and hydrology will be limited. Biological impacts would be positive in nature by providing a bird sanctuary and replanting and propagating beach sandalwood plants. Impacts on historic and archaeological resources would be nil. Impacts on public facilities and utilities would also be limited. Sonic and atmospheric impacts would be exclusively on-site and short-lived during construction.

The traffic generated by the proposed expansion may have impacts on Kalanianaole Highway by 1990 when the anticipated visitor count would reach 1.2 million annually. However, due to the nature of SLP's visitor industry, much of the traffic increase would be accommodated by buses, public and private and will be during non-rush hours.

Impacts on employment would be also limited but still would provide 20 more employment opportunities than the present program offers.

Positive economic impacts would occur as a result of more visitors being exposed to this unique educational and recreational program. SLP is a direct cause for the steady growth in the visitor industry in Hawaii. Furthermore, SLP is a unique educational facility for Hawaii's children and adults. Continued improvement and maintenance of SLP will be possible only through expansion of its present facilities and programs.

II. PROJECT DESCRIPTION

A. Project Location

Proposed actions will be included within the existing Sea Life Park at the easternmost point of the Ko'olau chain of mountains at the foot of a cliff 1,000 feet high. This is located 1.8 miles from Waimanalo Town and 3.9 miles from Hawaii Kai (see Exhibit II-1 Location Map).

B. Historic Perspective

Sea Life Inc. (SLI) was originally incorporated in 1962 as a for-profit corporation doing business as an Oceanarium by Makai Corporation along with its sister Corporations - the Oceanic Foundation, Makai Undersea Test Range, Royal Hawaiian Air Service, Hotel Hana Ranch, and the Lahaina Kaanapali Railroad. In 1972, Makai Corporation was discontinued, and, after reorganization, a major portion of SLI stock was purchased by Lion Country Safari and Bishop Corporation. Subsequently, Bishop purchased Lion Country's holding and presently owns 100% of SLI stock.

Oceanic Foundation holds the master lease on 118 acres from the State of Hawaii and subleases 61.662 acres to SLI of which 21.5 acres are usable. The remainder of the land is steep and extends up to the mountain ridge behind Makapuu Point Beach Park. SLI and Oceanic Foundation share some facilities, such as a saltwater line, roads, parking, etc. Makai Range Inc. is no longer in existence and the pier and buildings belong to Pierco, Inc. who lease the site from the State of Hawaii. The Research Corporation of the University of Hawaii manages the pier facility under contract with Pierco, Inc. Space at the pier is leased by SLI for its collecting vessel.

The Board of Land and Natural Resources created a conservation subzone at Kaupo by adopting a resolution to permit "recreational, educational and commercial uses" on August 10, 1962. The action, taken in preparation for the lease sale, stated that the proposed development was to be a sea life park, similar in nature to an oceanarium. The lease includes necessary pipeline and pump site easements for sea water utilization.

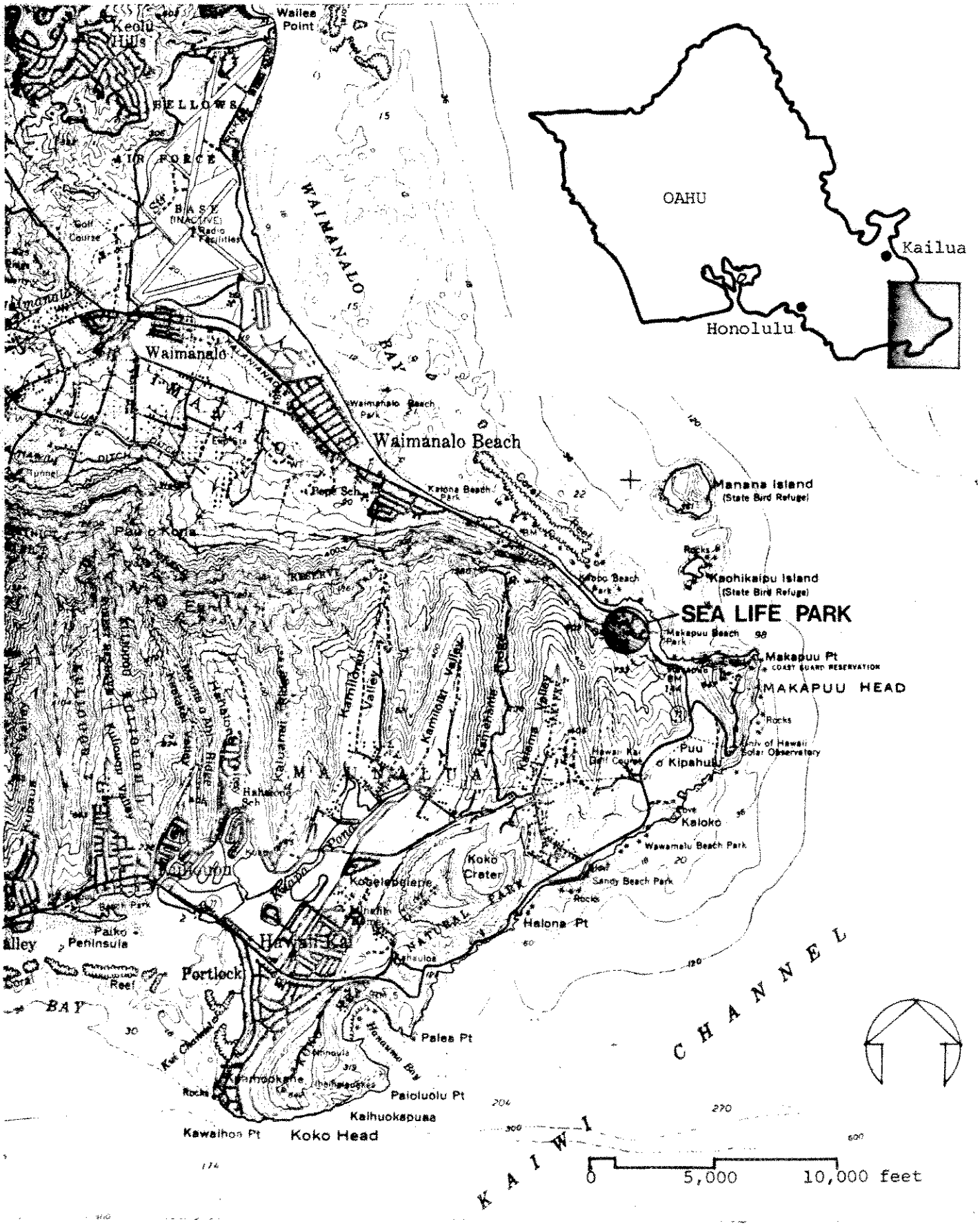


EXHIBIT II-1

LOCATION MAP

On October 5, 1977 SLI requested approval of plans to expand the facilities as described in "Update to the Master Plan for Sea Life Park" (Appendix 1) submitted to the Board of Land and Natural Resources. SLI was notified by letter on November 28, 1977 that the Master Plan was approved to permit construction of the following:

- a shark tank with corresponding saltwater system
- a Sea Lion Theater
- parking expansion incorporating road re-alignment of entry
- the remodeling of the existing entrance to facilitate accessibility to the Park
- supporting facilities including plans for the expansion of the existing food facilities
- a new commercial complex as well as new marine facilities including a Hawaiian Fish Pond, Penguin Pond and Porpoise Tank
- Redesigned walkways and picnic areas.

In subsequent plans the road re-alignment has been dropped from consideration.

On November 6, 1978, SLI, through its consultant, filed a Request for Assessment to obtain a Special Management Area Permit. On March 12, 1979, Department of Land Utilization determined that an EIS would be required for the proposed building expansion, since the project site is State-owned land in the Conservation District (see Appendix 2 for the DLU's determination).

In making that determination the Department of Land Utilization reviewed the applicant's master building expansion plans and identified the following potential major impacts:

1. "Socioeconomic

Effects on employment opportunities at SLP, and other related support services; increased demand on public services, such as roads, energy, parks, police protection, etc."

2. "Physical Environment

Increased vehicular traffic and construction activity with consequent impacts on air quality and noise levels; possible impacts on offshore water quality from increases in liquid wastes, possible effects on Makapuu Beach Park and nearby natural areas due to usage."

The department recommended examination of the above impacts during both construction and operational phases of the development.

C. Statement of Development Objectives

The SLP purpose is set forth clearly in the lease agreement with the State of Hawaii. Originally signed in 1962, the agreement between the two states that "The Lessee must provide a wholesome recreational and educational attraction in a healthy, park-like atmosphere commensurate with the best features of first-class public or private attractions of a similar nature in the United States". The Park is further obligated to design, construct and operate the facility to consist principally of marine life displays and presentations and for associated attractions or exhibits which shall incorporate and effect appreciable interpretation of the exhibit for public interest enlightenment and education. "The Lessee is free to select the type and variety of suitable exhibits and to develop or refine popular and appealing methods of animal display".

The Park seeks to expand the number of exhibits provided to the visiting public, to improve other facilities such as entrances, walkways, parking and to expand the dining area to include a theme restaurant above the existing dining lanai. These are necessary for the Park to continue to attract repeat visitors from the resident population in Hawaii and by providing more viewing opportunities for the expanding number of visitors to the Park.

Timely upgrading and renewal of the existing facilities are critical to the continued operation of the Park. The major exhibits are now 16 years old; although some have been adjusted to fit changing public interest, some new major facilities are needed to continue to attract a public that has become accustomed to refined entertainment and educational programming. Without sacrificing the environmental character of its site SLP must seek to stretch the imagination of the visitor, particularly given the price of admission which is required to pay the cost of operating this people and labor intensive facility.

D. General Description of the Proposed Action

The proposed action consists of expanded exhibit facilities, improved and expanded entrances, walkways and parking, and a new theme restaurant. All the proposed actions are to be within the existing 21.5 usable acres of the Park, with the exception of the corresponding saltwater system which extends across Kalanianaole Highway to pumps near the shoreline.

Following are general descriptions of each proposed action. Exhibit II-2 "Proposed and Existing Facility Plan" indicates each facility's general location.

1. Bar Renovation/Restrooms

The Existing Bar within the Galley Snack Bar Complex will be repaired and upgraded. Two restrooms (Men/Women) of approximately 550 sq. ft. will be added next to the bar (see Exhibit II-3 - Restroom Site Plan). This renovation will also construct a roof over the existing stage within the Bar Complex.

2. Sea Lion Stadium

The Stadium is designed as a large exhibit complex to display pinnipeds in their natural environment and to provide the setting for a major show. The tanks are expected to hold and display up to 34 sea lions.

Seating areas in the partially covered (trellised) Stadium will be approximately 720 sq. ft. accommodating 700 viewers with entrances/exits at 2 points (see Exhibit II-4 - Perspectives).

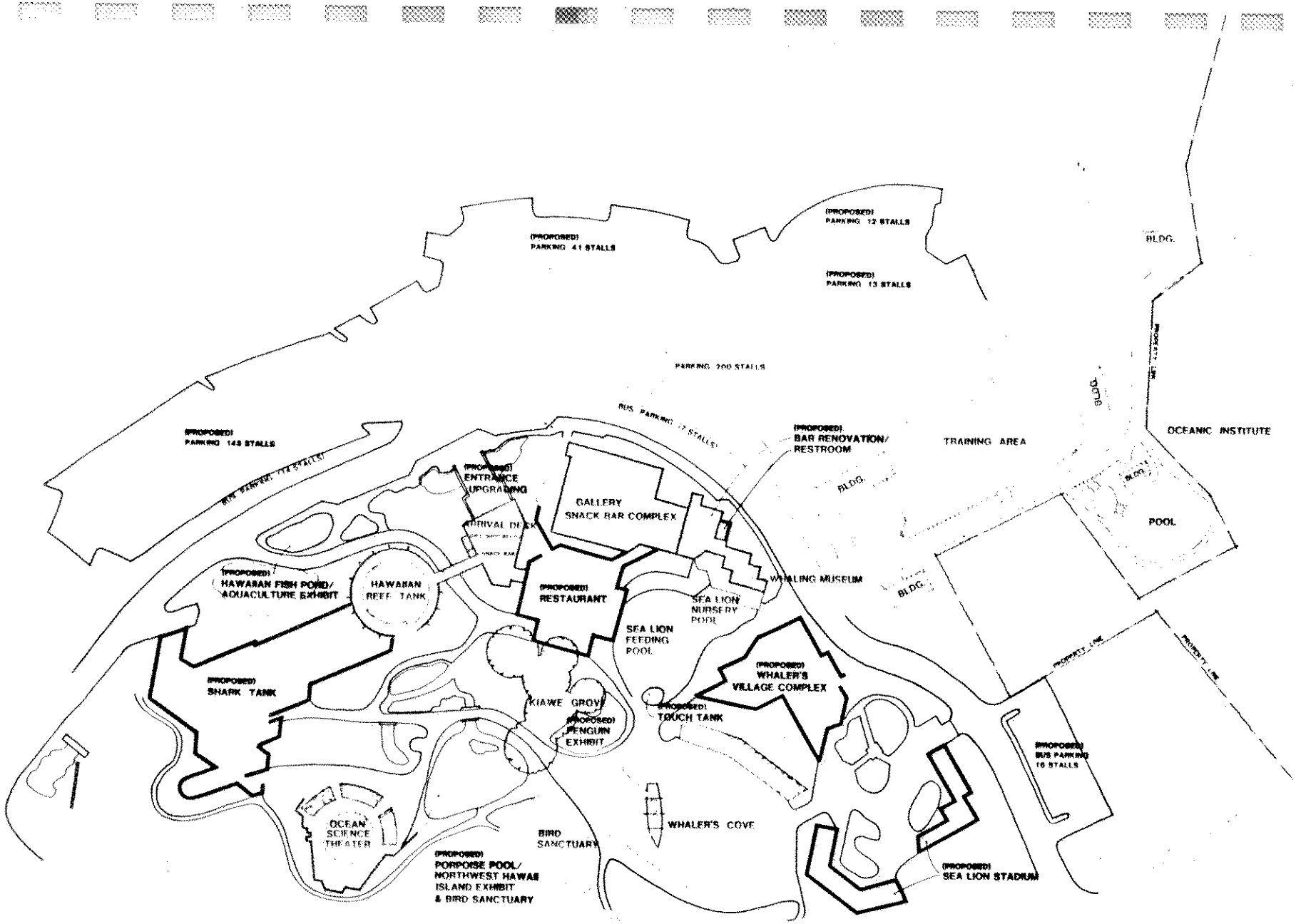
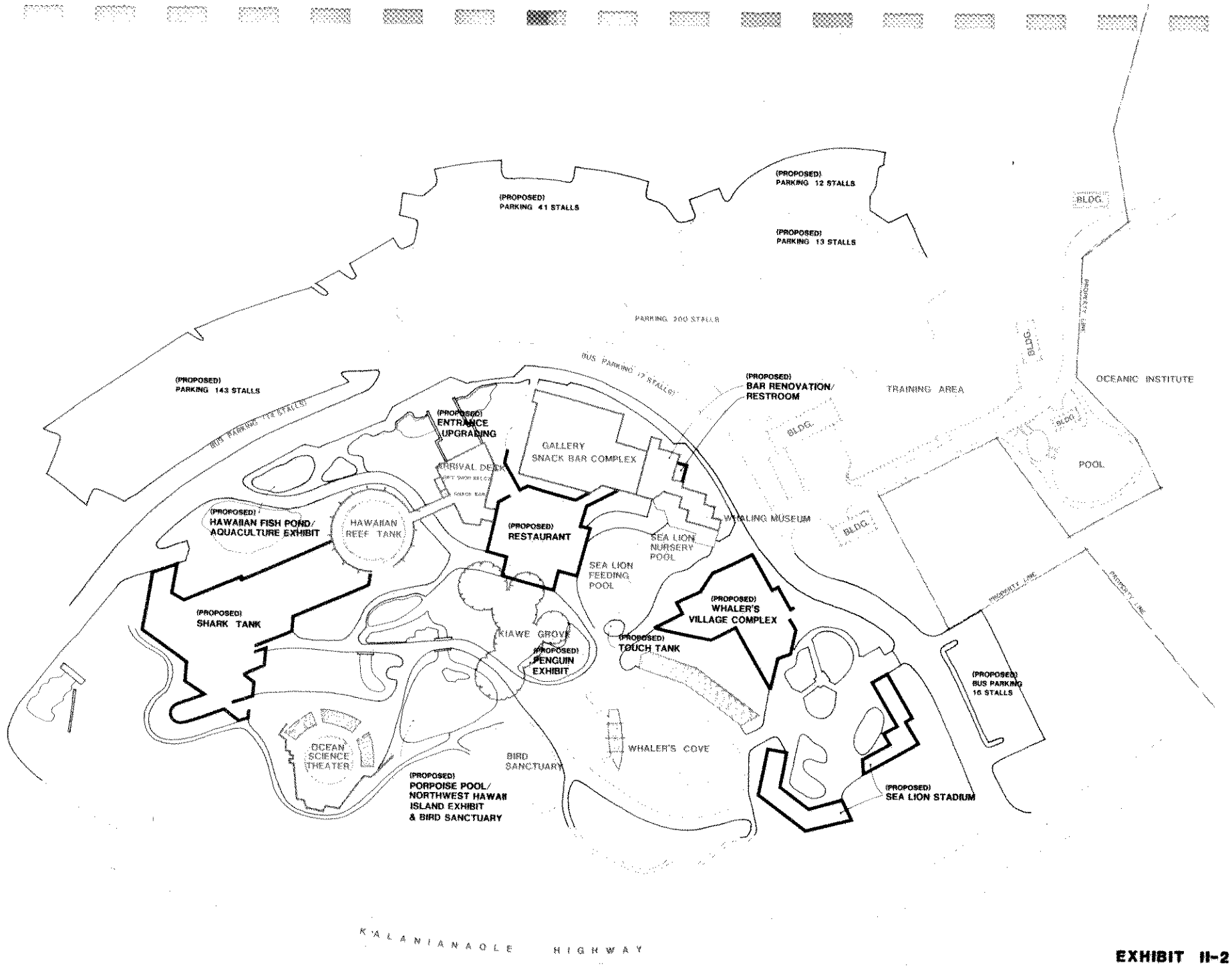


EXHIBIT II-2

PROPOSED AND EXISTING FACILITY PLAN



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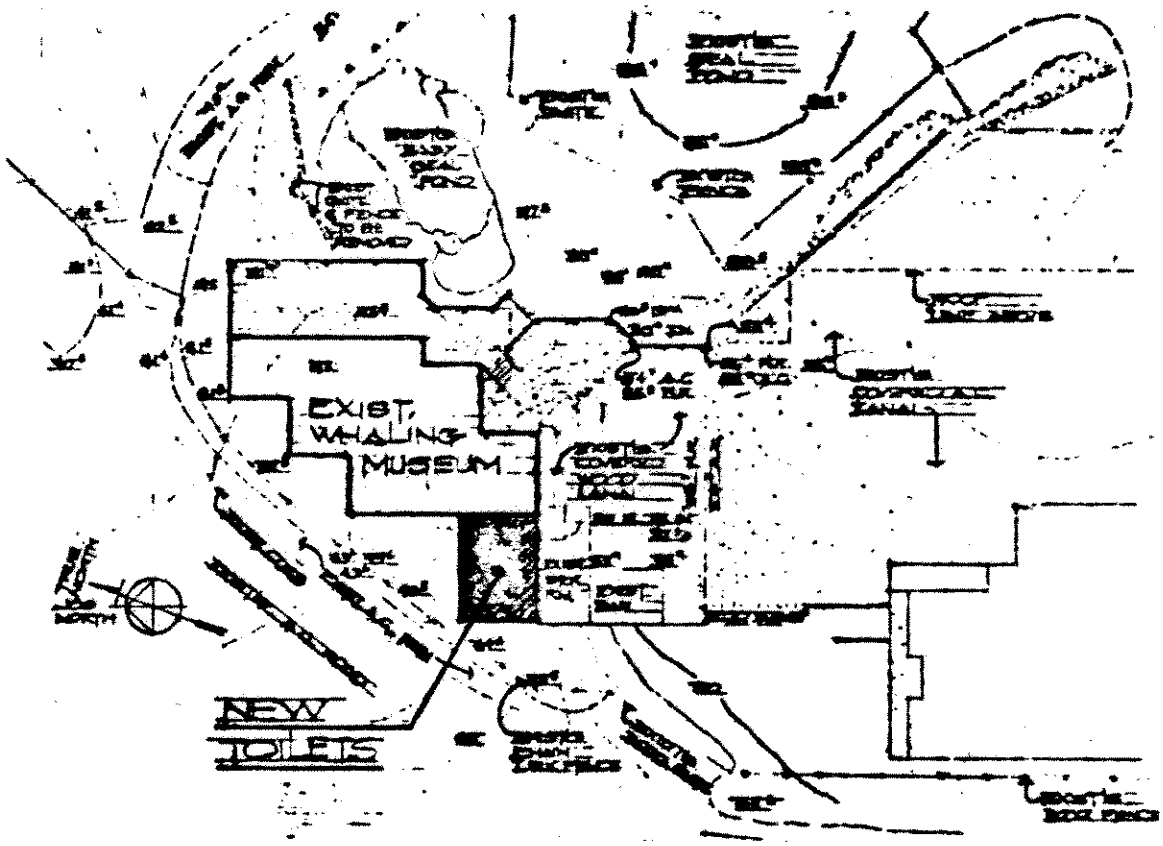
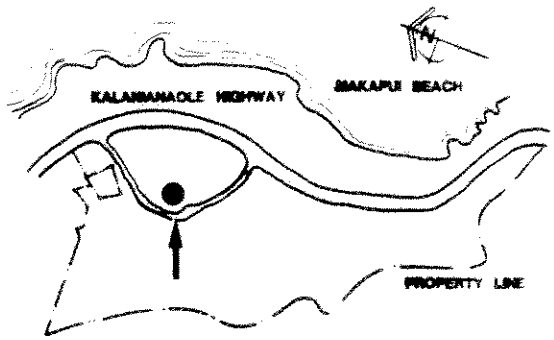




LOCATION MAP

EXHIBIT II-3

RESTROOM: SITE PLAN

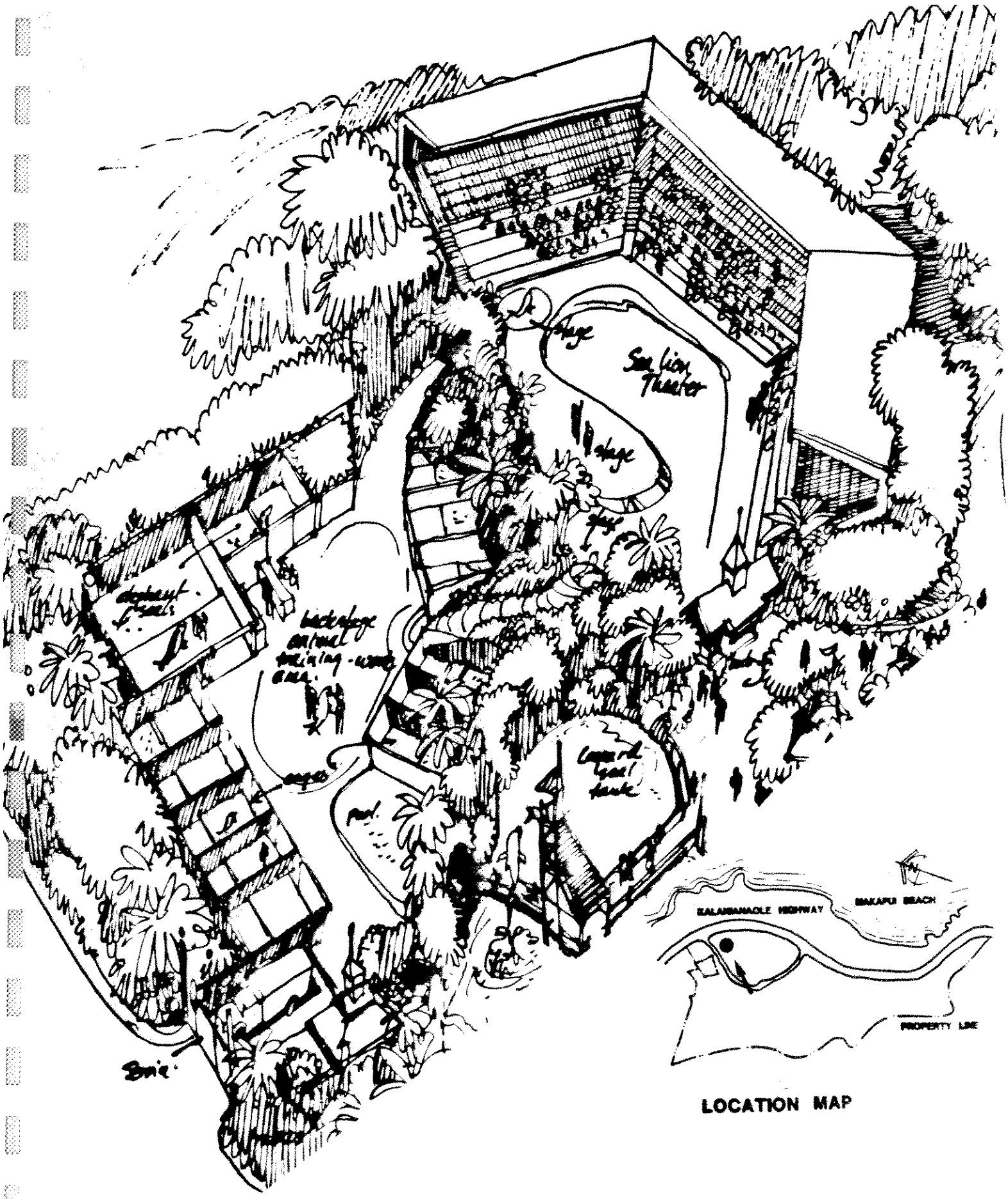


EXHIBIT II-4

-10- **SEA LION STADIUM: PERSPECTIVE**

3. Porpoise Pool with Northwest Hawaii Island Exhibit (NWHI) and Bird Sanctuary

This exhibit will be in an open area as a natural habitat. (See Exhibit II-5) All phases of construction and use of the pool will meet requirements of the National Marine Fisheries Service (NMFS), U. S. Fish and Wildlife Service (USFWS) and State of Hawaii Division of Fish and Game (SHDFG). The exhibit will be built to the Department of Agriculture specifications. Animal collecting will be done with appropriate State and Federal permits and will include birds, turtles, and spinner dolphins, if available.

4. Touch Tank

An important part of marine education is actually handling marine organisms. Sea Life's master plan calls for the construction of a Touch Tank to allow visitors to look at many marine organisms and actually handle selected species.

This Tank consists of an open u-shaped shallow tank in order to maximize the number of viewers at any one time. The tank is designed so that lectures and demonstrations can easily be given.

5. Penguin Exhibit

The Penguin Pool is envisioned as a shallow, below grade pool with a lava rock backdrop. It will be designed to simulate the penguin's natural environment. At one end there will be a cobble beach, typical of the South American beaches where birds are found. Water inlets will be through a small waterfall at one end and through a small stream that flows through the beach.

The Penguin Tank is designed to give a factual look at a very misunderstood bird. The setting will be copied from photographs of actual penguin rookeries. The area will also be designed so that lectures can be given to interested groups.

6. Whaler's Village Complex

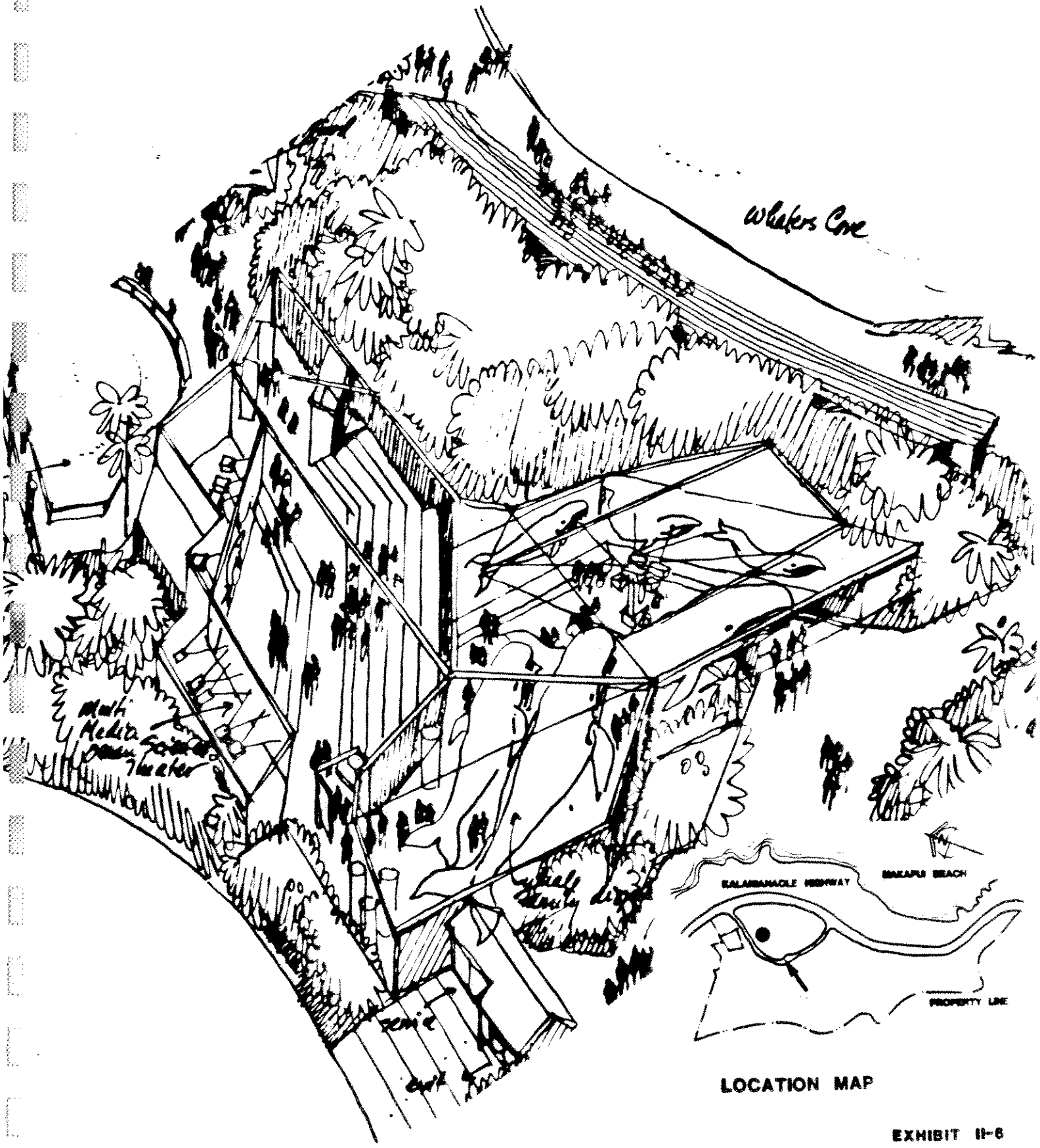
The Whaler's Village and Commercial Area will be designed to emulate the cultural environment of the "Whaling Epoch" of mid 19th century Hawaii (see Exhibit II-6). Using the premise of recreational education, Whaler's Village Complex will

LOCATION MAP

EXHIBIT II-5

PORPOISE POOL

WITH NWHI AND BIRD SANCTUARY: PERSPECTIVE



LOCATION MAP

EXHIBIT II-6

WHALER'S VILLAGE COMPLEX: PERSPECTIVE

combine elements of entertainment with educational informative exhibits. The Complex will include exhibit area, multi-media/lecture room and gift shop/snack facility within a total area of approximately 9,470 sq. ft. under the roof.

The Gift Shop will merchandise items of quality which relate to the 19th century whaling era environment and period of history. Snack facility will provide speciality foods, representing the whaling era. Incorporated into the Gift Shop/ Snack Facility Complex will be the existing Whaling Museum, a focal point in the village, with artifacts relating to this most important period of Hawaiian history. The story of whaling in Hawaii, as well as present day whaling is told to the visitor in this exhibit. The Museum will serve a two-fold purpose in the village in addition to the educational aspects: (1) lend credence to the village itself and (2) include longer time in the Park for the visitor. A multi-media/lecture room will also be incorporated into the village area for student lectures, films,* and other educational activities.

7. Entrance Upgrading

The Existing Entrance will be redesigned for easier accommodation of large group arrivals.

8. Parking Expansion

The 1963 adopted plan for the Park included provisions for parking 411 automobiles and no buses. The existing parking area was not fully built to the maximum because 200 spaces accommodated the parking demand.

The newest plan for parking differs markedly from the 1963 plan and slightly from the 1977 plan in that it clusters parking in as small an area as possible and seeks to emphasize and expand the landscaped area in the parking lot. The automobile parking proposed would expand the spaces to 409 from the existing 200. The bus parking proposed would expand the spaces to 37 from 21 spaces. As

*Marine related films will be presented in an IMAX area of 360° domed move presentation area to replicate an underwater experience.

one of the many stops on the Mini Circle Island Tour, buses regularly stop for a 2 hour visit to the Park for the exhibits, restaurant and/or the shops. They carry approximately 50-60 passengers per bus.

9. Hawaiian Fishpond/Aquaculture Exhibit

Early Hawaiians practiced aquaculture with their fishponds. Early Hawaiian fishponds will be demonstrated alongside of actually producing modern ponds in an educational exhibit that demonstrates a potentially important area of developing Hawaiian industry.

These projects will basically consist of shallow tanks, concrete lined, rock-bordered and landscaped. The Hawaiian Fishpond will be approximately 90 to 100 feet in diameter; the breeding tanks and facilities will encompass an area of approximately 50 feet by 100 to 200 feet. This exhibit could be a joint effort with the Oceanic Institute. It would provide facilities for Oceanic's aquaculture study as well as providing public exposure to aquaculture.

10. Restaurant

This Eating Facility will seat approximately 300, be open from approximately 10 a.m. to 10 p.m. and provide a full service waitered theme restaurant in the same manner as the Proud Peacock at Waimea Falls Park. Because the restaurant can be reached by the public without passing through the admission gate the full service restaurant would be a resource for the residents of Waimanalo and Hawaii Kai as an alternative to driving back into town for dinner out. It would be located next door and one floor above the existing Galley Snack Bar Complex to command a panoramic view of the Pacific Ocean, the offshore islands and SLP. A nautical theme would be used in keeping with the overall theme of SLP, construction to be of heavy timbers and with extensive use of wood.

A total area of this new theme restaurant will be approximately 6,800 sq. ft. including a 1,800 sq. ft. kitchen. This area will provide about 300 seating capacity.

11. Pathways Relocation

Pathways in the Park will be relocated as the new exhibits are constructed. The Park layout is planned to provide a smooth and safe pedestrian trail to ensure that all amenities and displays are seen by each visitor.

12. Shark Tank

The Tank is intended to display sharks and large pelagic fish in a 1,000,000 gallon structure which will provide a unique viewing opportunity to the visitor. The tank will be triangular in shape, with outside dimensions of approximately 120 feet per side and will be located an area of approximately 14,415 sq. ft. Height of the tank will be about 34 feet to top of roof peak. The trough in which the animals swim will be about 15 feet wide and average 15 feet deep. Viewing will be from a catwalk above, from the entrance/exit below the "moat", and from the central core (see Exhibits II-7 and 8).

Illumination will be by natural light with translucent roof panels for rain protection.

Between the proposed Shark Tank and the existing Hawaiian Reef Tank there will be a connecting tunnel. The visitors will experience the illusion of an underwater trip into the existing Reef Tank, pass through the tunnel connector with undersea wall displays and then up through the Shark Tank, surrounded by large sharks, returning to daylight at the surface of the Shark Tank.

13. Saltwater Handling Facility (see Exhibit II-9)

In order to construct the Shark Tank and Sea Lion Stadium, the saltwater system will have to be enlarged and improved. This enlargement will require the addition of two new water lines and four pumps. A new 24" saltwater line with two pumps will be installed to service the new Shark Tank exhibit and also be a backup system for the existing system. Two new pumps will be installed at Makapuu Beach Park and will be located near the existing satlwater pumps presently serving SLP. This new saltwater line will run parallel to the existing 24" saltwater lines. The improved

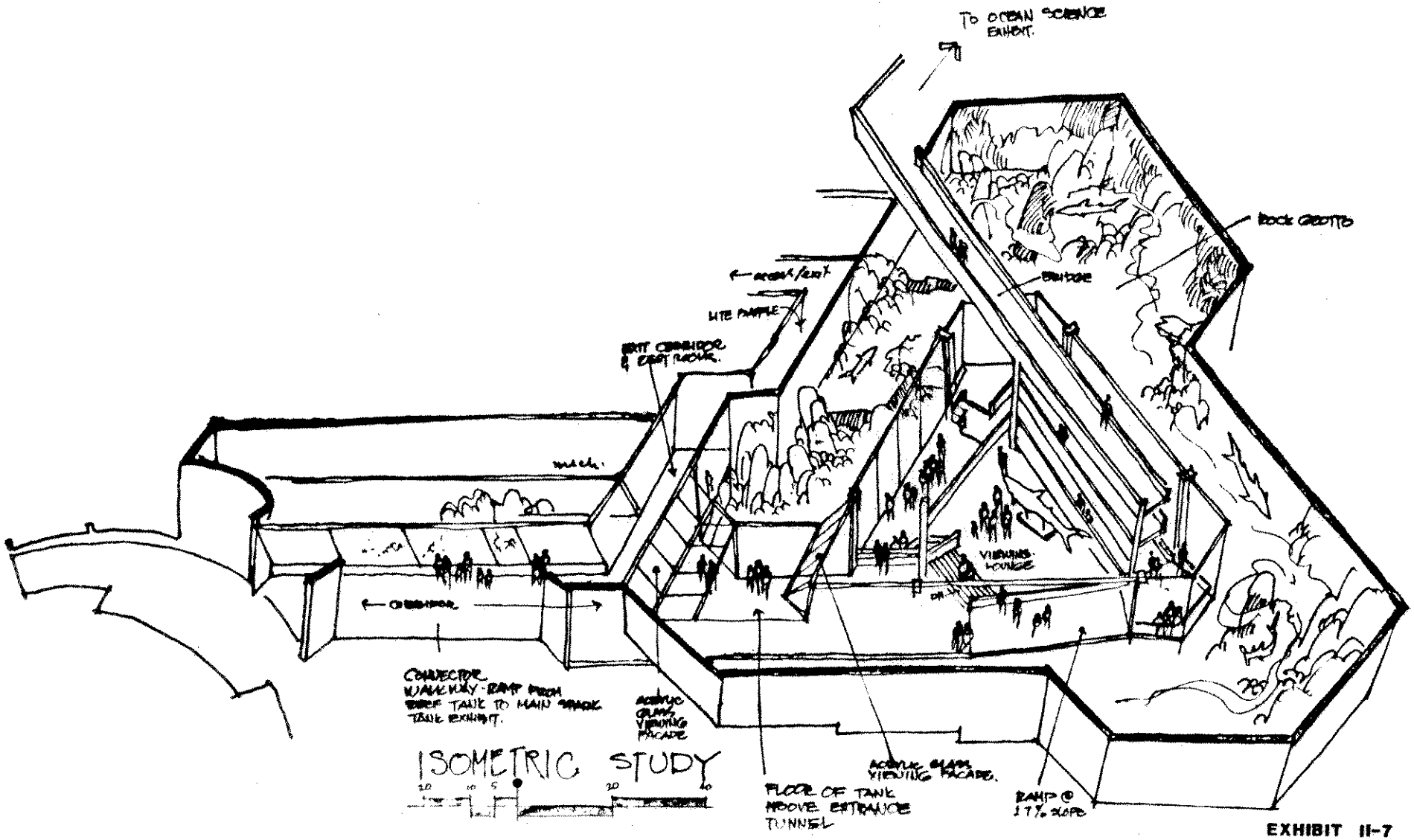


EXHIBIT II-7

SHARK TANK: ISOMETRIC STUDY

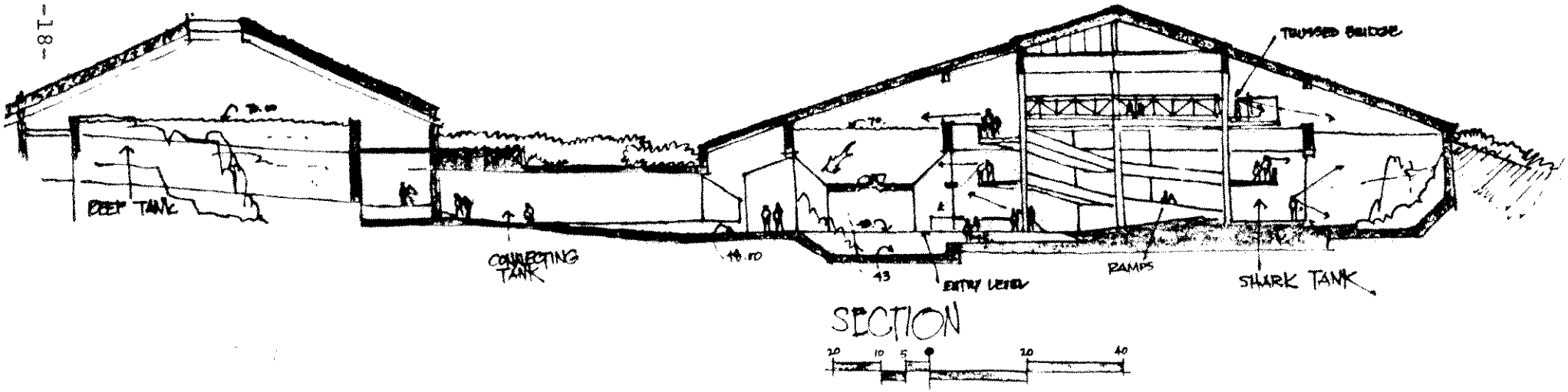


EXHIBIT II-8

SHARK TANK: SECTION

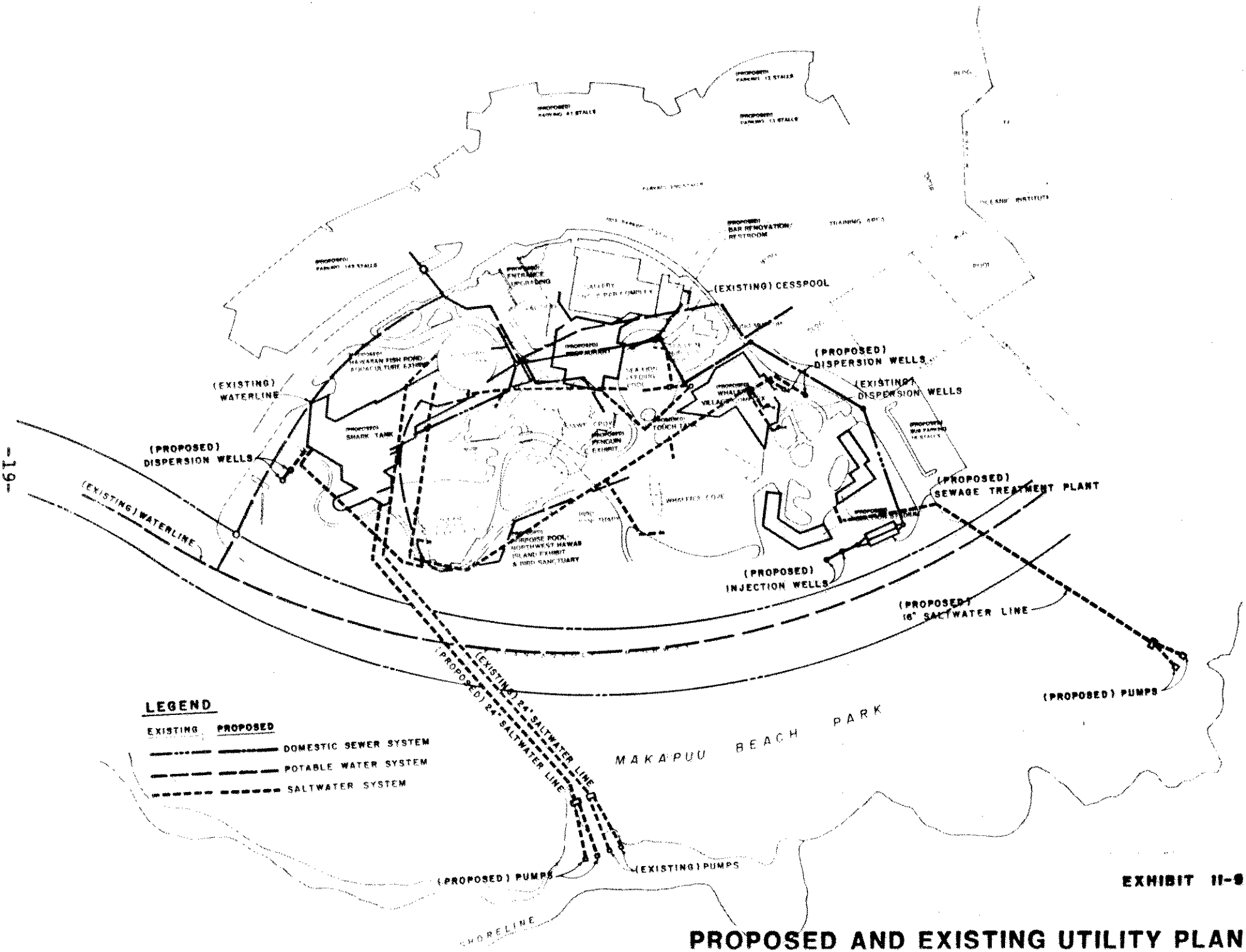


EXHIBIT II-9

PROPOSED AND EXISTING UTILITY PLAN

saltwater system will increase the total water pumped from approximately 7,900 gpm to 13,700 gpm and will require at least 4 additional injection wells.

Subsurface disposal of saltwater will not affect the ground water aquifer or coastal Class AA waters. There is no potable ground water source in this area. The saltwater being discharged is similar in quality to the coastal water with possibly a slight reduction in dissolved oxygen. Current disposal of saltwater from existing tanks show no effect on coastal waters.

A second system consisting of two saltwater pumps and a 16" saltwater transmission line will be constructed to service the Sea Lion Theater. This system will operate independent of the two 24" saltwater line system. This 16" saltwater line will cross Kalanianaole Highway west of the Waimanalo driveway to SLP. Two pumps will be connected to the 16" saltwater line and will be installed near the shoreline approximately 700 feet west of the existing pumps.

Locations for proposed saltwater system are shown diagrammatically in Exhibit II-9.

14. Sewage Treatment Facilities (see Exhibit II-9)

Sewage treatment facilities will be improved with a new sewage treatment plant to serve the entire Park. The existing cesspool will be abandoned at the time the new treatment plant begins operation. The proposed plant will be designed to treat sewage flows of 45,000 gallons per day.

Sewage Treatment Plan
Design Data

	Present	Future
Number of Visitors Per Day	1,885	4,110
Number of Employees	126	150
Food Service		
Snack Bar seats	700	700
Restaurant seats	-	350
Flow Calculations		
Visitors x 5 gpd	9,425	20,550
Employees x 15 gpd	1,890	2,250
Food Service		
Snack Bar x 5 gals/seat	3,500	3,500
Restaurant x 50 gals/seat	-	17,500
	14,815	43,800
Total Treatment Capacity Provided		45,000 gpd

While the design and time schedule for construction of the Sewage Treatment Plant (STP) is five (5) years away (see "Phasing of the Proposed Project" on page 23), the current plan for the STP is treatment through extended aeration tank which involves separating liquids from solids, disposing of liquids through injection wells and hauling solids to a landfill after drying. The proposed STP will have to meet Public Health Regulations, Chapter 38, HRS which specify such things as minimum distance requirements to prevent nuisances (Sec. 4.2.E.), recommended standards for sewage works (Sec. 4.3.B.), inspection of facility by the Department of Health Director before approval of the facility (Sec. 4.2.H.1.), maximum amounts of biochemical oxygen demand and suspended solids permissible in effluent (Sec. 5.) and requirement for certified operator (Sec. 4.2.). The STP will be reviewed again during the Conservation District Use Application process.*

Initial evaluation of the suitability of the area for wastewater disposal appears favorable. According to Board of Water Supply (BWS) studies, SLP is in the "pass zone," which rates the area as suitable for waste disposal involving a depth of 30 feet or less, which is why the current cesspool was approved. BWS hydrologists anticipate no problems with injection wells of up to 200 feet on the property since the supply of groundwater in the area is virtually nil. As a comparison, all three dispersion wells in SLP currently function without any problems. The wells, situated on the Waimanalo side of SLP, were dug 15 years ago and handle approximately 1,440,000 gallons per day. Although 3 wells were redrilled from a depth of 100 feet to a depth of 180 feet, only two wells required the redrilling to improve percolation. Two other wells, one handling 2,584,000 gallons per day and the other 1,000,000 gallons per day, on Oceanic Institute property, have had no problems since they were dug 13 years ago. They are both 100 feet deep.

*Because all other proposed facilities are consistent with the original lease and have been previously approved in the 1977 master plan for SLP, they do not require a Conservation District Use Application.

Location and depth of wastewater injection wells will ultimately be determined by percolation tests. These tests will also determine the point of effluent discharge offshore by tracing dyes injected into test wells.

Theoretically there should be no affect on the saltwater intake system and the Class AA coastal waters. Wastewater will be injected at a relatively great depth below sea level, whereas saltwater intake will occur near the surface. However, water quality in the intake system will be monitored, as is done currently. Any concentration of nutrients in the wastewater effluent should be dispersed and diluted sufficiently upon reaching the ocean. Wave action will further dilute any effluent.

If upon conducting percolation tests, results indicate adverse affects on Class AA coastal waters or the saltwater intake system, SLP will be obliged to consider modification of well depth or an alternate method of sewage disposal to meet Chapter 38 requirements. If the proposed STP is deemed appropriate, SLP will retain a certified operator to insure proper operation and maintenance. The proposed STP would incorporate the most current technology in its design and stress proper maintenance to prevent unpleasant odors.

E. Use of Public Funds or Lands for the Action

SLP leases 61.662 acres of land from the Oceanic Foundation which holds the master lease on 118 acres from the State of Hawaii. All the proposed actions will be located within 21.5 acres of the 61.662 acres.

No public funds will be used to develop the proposed action.

F. Phasing of the Proposed Project

The construction is proposed to extend over a ten year period as follows:

Phase I	1981-1983	Existing Bar Recreation/ Restrooms Sea Lion Stadium and new saltwater line (16" line) Porpoise Pool with NWHI Exhibit/Bird Sanctuary Touch Tank Penguin Exhibit Whaler's Village Complex Entrance Upgrading Parking Expansion
Phase II	1984-1986	Hawaiian Fish Pond/ Aquaculture Exhibit Restaurant and Sewage Treatment Facilities Pathways Relocation
Phase III	1987-1990	Shark Tank Saltwater Handling Facility (24" line)

These dates are estimates only since actual construction will necessarily be dependent on the economic feasibility of doing so.

III. DESCRIPTION OF ENVIRONMENTAL SETTING

A. Surroundings

The heavy concentration of recreational uses on the coastal approach to SLP includes the proposed Koko Head Natural Park with Koko Head and Koko Crater on either side of Hanauma Bay, Halona Point, (Blow Hole), Koko Head Rifle Range, Koko Crater Stable, Hawaii Kai Golf Course, and several excellent beaches and fishing areas (see Exhibit III-1). Makapuu and the numerous beaches in the Waimanalo direction combine to make this area a prime recreational area for residents as well as a unique tourist attraction.

Public facilities located in the area include a sewage disposal plant, Coast Guard Station, and light house (see Exhibit II-1, Location Map).

There are no residential areas in the immediate vicinity of SLP, but the traveler reaches a residential neighborhood 1 mile from the Park entrance. Homes cluster on either side of Kalanianaole Highway until the valley widens and expands to include Waimanalo Beach Park, a few small stores and restaurants, gasoline station and agricultural uses in the valley.

Commercial services are quite limited in the vicinity of the Park. Between Hawaii Kai Shopping Center and Kailua there are no sit down restaurants and few retail shops.

Bird refuges are located on Manana (Rabbit) and Kaohikaipu (Black Rock) Islands 1,400 and 800 yards offshore where as many as 250,000 birds nest.

Overall, SLP's setting is ideal for its purposes. The scenery is exceptional and is the perfect backdrop for an educational and recreational facility to attract repeat visitors from Hawaii's residents as well as the first time visitor to the Island and other tourists.

The sea water off SLP is in the AA Water Quality Classification which is an important factor in maintaining the healthy sea animals that live in the Park. The water for their tanks is pumped from the shore immediately makai of the Park. It is the objective of the AA class that these waters remain in their natural state as nearly as possible with

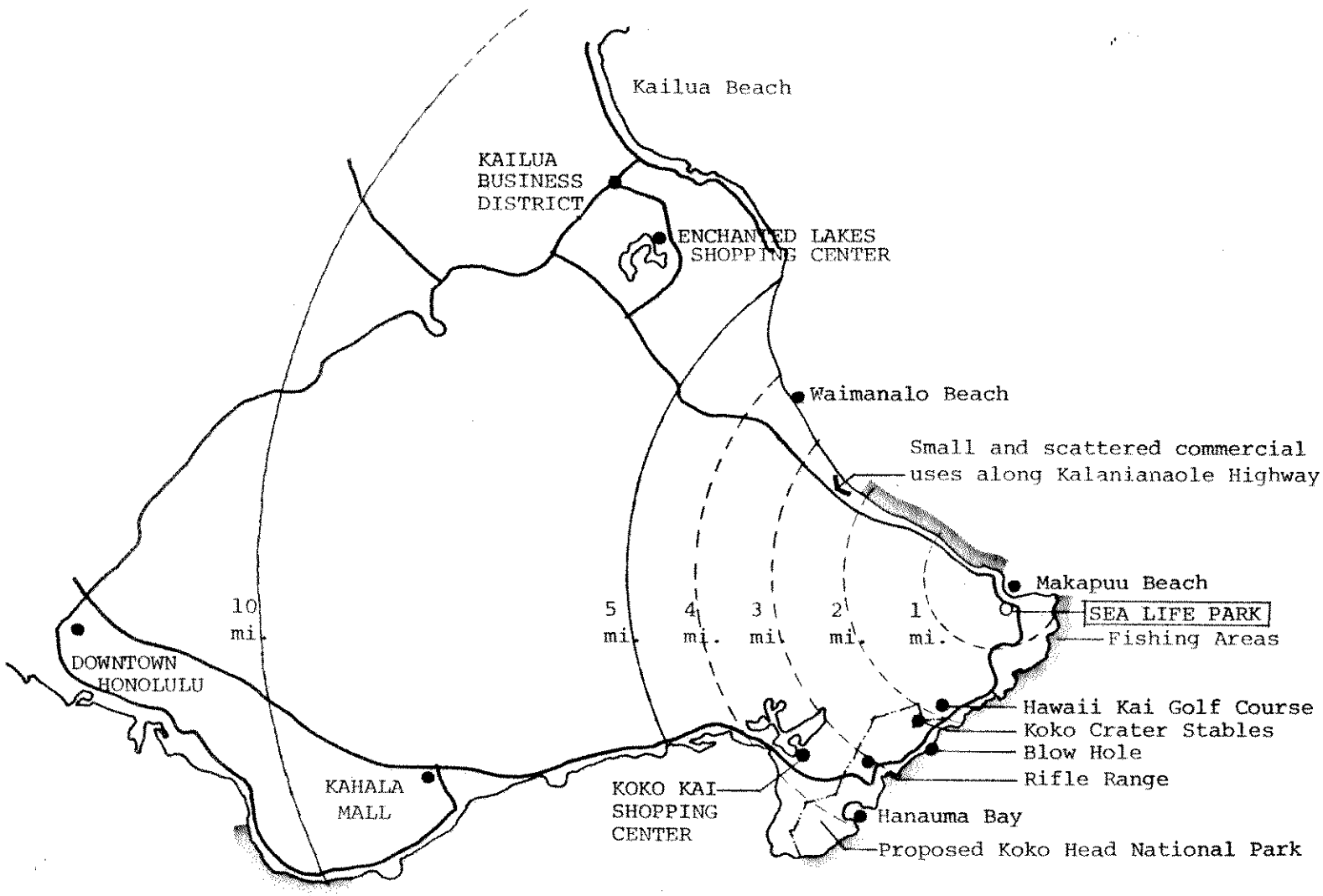


EXHIBIT III-1

SURROUNDING RECREATIONAL USES

an absolute minimum of pollution or alteration of water quality from any human caused source or actions. The uses to be protected in this class of waters are oceanographic research, the support and propagation of shellfish and other marine life, conservation of coral reefs and wilderness areas, compatible recreation, and aesthetic enjoyment.*

B. Facility Characteristics and Function (see Exhibit II-2)

SLP opened in February 1964 with five exhibits and attracted 221,600 visitors in its first year of operation. The original concept was realized only in a limited fashion due to economic constraints. Few facilities of this type had ever been built before** and there was little track record to evaluate prospects for success. It was an attempt to provide a recreational and educational program in an ideal setting.

While the major exhibits have remained unchanged since 1964, some of the original exhibits have been modified or dropped due to lack of visitor interest or management difficulties. Of the original displays the Park presently contains:

	PRESENT NAME	ORIGINAL NAME
1.	Hawaiian Reef Tank	Lagoon Tank
2.	Ocean Science Theater	Porpoise Theater
3.	Whaler's Cove	Whaling Exhibit
4.	Sea Lion Feeding Pool	Seal and Bird Pool
5.	Turtle Lagoon	Shark Tank

* Chapter 342, HRS, Chapter 37-A of the Public Health Regulations of the Department of Health, State of Hawaii.

**Marineland of the Pacific, San Diego's Sea World, Miami Seaquarium and Marineland of Florida.

In addition to these exhibits, the bird sanctuary, major landscape features (Kaupo Falls-Keawe Grove), and commercial and convenience facilities have been added. Following are brief descriptions of existing facilities:

Hawaiian Reef Tank

This is a cylindrical fish tank viewed from a spiral walkway around the perimeter 300,000 gallons. This display contains a Hawaiian reef, barracuda, eagle and manta rays, small sharks, common Hawaiian reef fishes, green and hawksbill sea turtles and other invertebrates. Several times a day a diver enters the tank and a narrator gives interesting data on the creatures and their habits.

Ocean Science Theater (OST)

This circular, glass walled tank holds 220,000 gallons plus three holding tanks, and has seating for 650 under roof. The OST provides a performance platform for Pacific and Atlantic bottlenose dolphins, rough toothed dolphins, California sea lions, and Humboldt penguins. Attached to the OST are three cetacean holding tanks, two penguin holding areas and three pinniped holding pens.

Whaler's Cove

This performance stage has seating for 900, a 1,000,000 gallon tank with small island and a 5/8 scale replica of the whaling ship Essex as a performance platform.

Types of animals that have performed in this exhibit: spinner dolphins, spotted dolphins, Atlantic bottlenose dolphins, Pacific bottlenose dolphins, rough toothed dolphins, pilot whales, false killer whales, melon headed whale.

Sea Lion Feeding Pool and Nursery

This 25,000 gallon pool houses California sea lions and provides an opportunity for the public to feed the sea lions, and observe them and their pups in the adjacent nursery. Twelve pups were born here over the last season. This display was originally intended to replicate the environment of the Northwestern Hawaiian Islands (NWHI).

Turtle Lagoon

This exhibit is located at the exit of the Hawaiian Reef Tank. The giant green sea turtles, hawksbills and loggerhead turtles from Hawaii's waters are now protected by law and SLP has scientifically constructed an area where it has been the first to breed these animals in captivity. Hundreds of baby turtles have been hatched in the warm sand, all but a few being released to the open sea and freedom. Kaupo Falls, complete with fishponds and waterfalls is nearby and inhabitated by native water fowl. The Bird Sanctuary and Kaupo Falls provide quiet, passive observation of the local wildlife.

Commercial and Convenience

The commercial and convenience facilities are open and available to the public without entering the Park's exhibit areas and without paying the admission fee. This access includes eating facilities, a shopping arcade and restrooms for the convenience and comfort of visitors.

The Park is approximately at the halfway point in the Mini Circle Island Tour and is therefore an ideal location for tour group lunches. Also there are few alternative locations for eating that are close to the recreational area, and very few on the Mini Circle Island Tour with serving capacity for large groups.

The Galley Snack Bar with seating for 700 is operated by Volume Services, Inc. on contract to SLP.

Shops offering unique gift articles and souvenir items also carry a marine and sea life theme. These stores offer sea related items in a broad price range for children and adults, resident and tourist.

Parking is available for 200 automobiles and 17 buses on Park land furthest from Kalanianaole Highway. Employees park in several locations on the Waimanalo end of the property.

C. Utilities (see Exhibit II-9)

1. Saltwater is required for all the exhibit, holding and training tanks. The saltwater is supplied through two wells 25 feet deep located at Makapuu Beach Park. 80 horse-power pumps, located at each well, filter and deliver 5,000 gallons per minute via a 24-inch line to the Hawaiian Reef Tank, Ocean Science Theater, Whaler's Cove and the remaining exhibits. Another pump delivers 2,900 gallons per minute of water to the training area by way of a 16-inch line. Water is circulated once then dispersed of into 3 dispersion wells at the rate of 10.8 million gallons per day.

2. Potable water is provided to the Park by the Municipal water system from a 30" transmission main located in Kalanianaole Highway fronting the Park and its use is monitored by a 4" meter. Presently the Parks average use is about 106,200 gallons per day.

3. Sewage is disposed of in a cesspool. The system functions efficiently. Its location is shown on Exhibit II-9.

4. Electricity - The supply of electricity is adequate for existing requirements at SLP.

5. Cooking fuel is provided with two propane gas tanks.

IV. RELATIONSHIP OF THE PROPOSED ACTIONS TO LAND USE PLANS, POLICIES AND CONTROLS

Plans, policies and controls which have a relationship with this proposal include the State Land Use District Classifications, Oahu General Plan, Detailed Land Use Map, Proposed Development Plan for Ko'olaupoko, County Zoning, Shoreline Management Area Regulations and the Federal Flood Insurance program. These are discussed in detail below:

A. State Land Use District

SLP and the surrounding area is included in the State Land Use Conservation District (Exhibit IV-1). Within the Conservation District the lands are further classified into subzones.

According to DLNR Regulation 4* SLP falls in both the Limited and General Subzones (Exhibit IV-2) intended for lands which are:

Limited

Lands susceptible to floods or soil erosion, lands undergoing major erosion damage and requiring corrective attention by the County, State or Federal Governments; and lands necessary for the protection of the health and welfare of the public by reason of the land's susceptibility to inundation by tsunami and flooding or to volcanic activity and landslides which incorporate a general slope of 40% or more.

General

Land with topography, soils, climate or other related environmental factors that may not be normally adaptable or presently needed for urban, rural or agricultural use; and lands suitable for farming, flower gardening, operation of nurseries or orchards, grazing including facilities accessory to such uses when said facilities are compatible with the natural physical environment.

*Regulation No. 4 provides for certain land uses with Conservation District Subzones. It is a regulation of the Department of Land and Natural Resources, State of Hawaii, Providing for Land Use Within the Conservation District, Providing for Subzones, Uses, Appeals, Enforcement and Penalty, Pursuant to Chapter 183-41, HRS as amended.

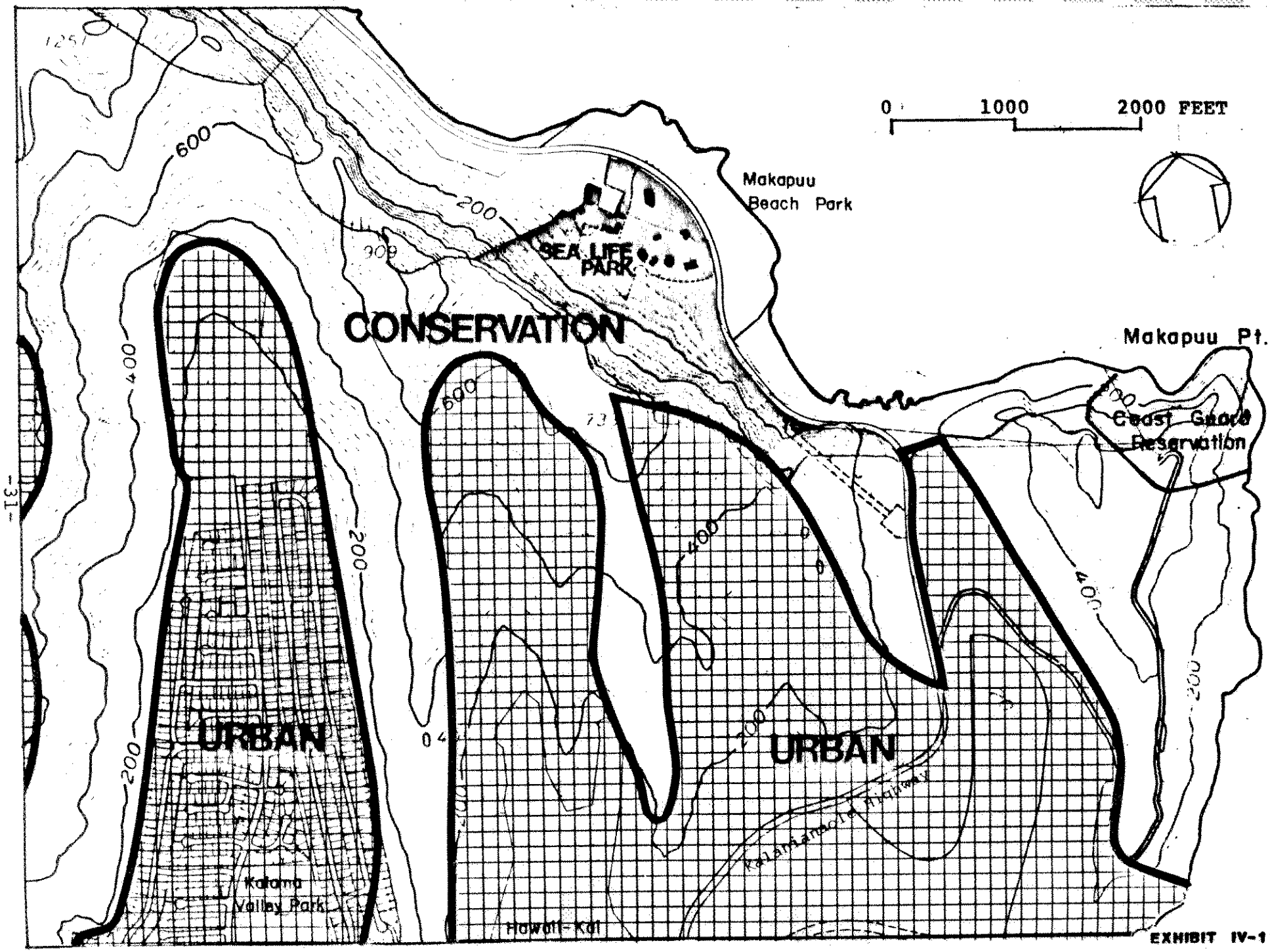


EXHIBIT IV-1

STATE LAND USE DISTRICT

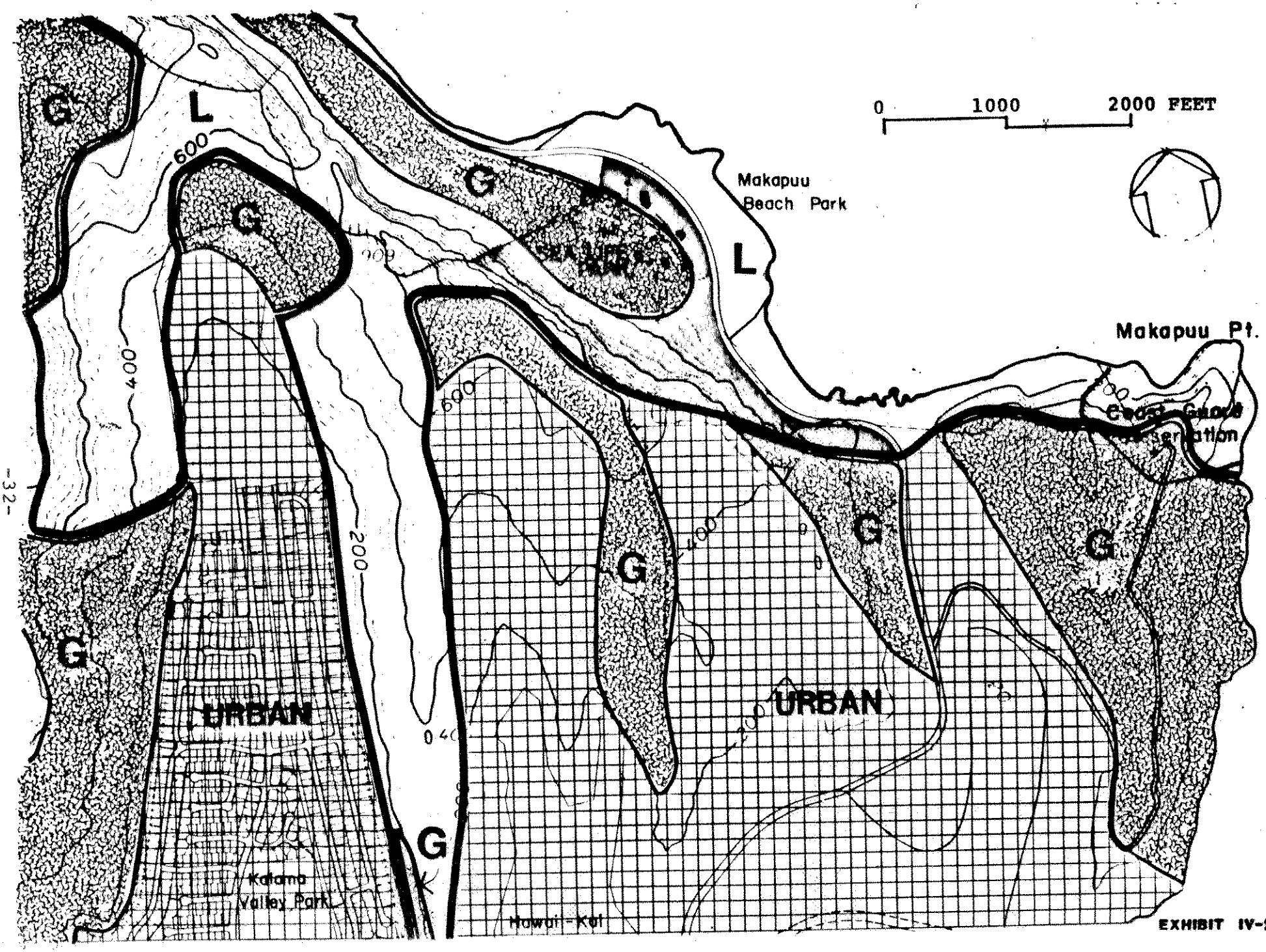


EXHIBIT IV-2

STATE CONSERVATION DISTRICT SUB-ZONE

The existing and proposed uses at SLP fall under several of the permitted principal uses of Regulation 4: Establishment and operation of marine, plants and wildlife, sanctuaries and refuges, wilderness and scenic areas including:

Habitat Improvement

Monitoring, observing and measuring natural resources

Aquaculture

Artificial reefs

Development of water collection, pumping, storage, control and transmission.

On August 10, 1962 the Board of Land and Natural Resources specifically created a conservation subzone at Kaupo by resolution which specified recreational, educational and commercial uses for the proposed development to be a sea life park, similar in nature to an oceanarium. Therefore, the proposed action within the SLP conforms with the State Land Use District policy.

B. Oahu General Plan

The General Plan for the County of Honolulu was adopted in 1977 with nine long range objectives detailed in 180 policies for the island of Oahu which serve as a guide to the development of Oahu. Because the proposed action at SLP would be minor relative to the whole island it will have no effect on the growth and development objectives of the Plan. As a visitor attraction the proposed action will accommodate portions of a projected increase in visitor industry; it will have no direct effect on the number of visitors to Oahu. It would neither contradict nor obstruct progress toward the realization of the plan's objectives.

However, some of the General Plan objectives and policies relate in a positive way to SLP and its plans for expansion at Makapuu Point.

ECONOMIC ACTIVITY

OBJECTIVE A

TO PROMOTE EMPLOYMENT OPPORTUNITIES THAT WILL ENABLE ALL THE PEOPLE OF OAHU TO ATTAIN A DECENT STANDARD OF LIVING.

The proposed action conforms to several of the policies underlying Objective A insofar as it would:

- contribute to the economic and social well-being of Oahu residents;
- encourage industry of a non-polluting nature.

OBJECTIVE B

TO MAINTAIN THE VIABILITY OF OAHU'S RESORT INDUSTRY.

The proposed action conforms to the underlying policies as it would encourage the continued high level of service provided to visitors.

OBJECTIVE E

TO PREVENT THE OCCURRENCE OF LARGE SCALE UNEMPLOYMENT.

SLP works closely with Alu Like* and local high school programs to train young people in marine careers. In that regard the proposed action helps to fulfill an underlying policy by encouraging the training and employment of present residents for currently available and future jobs.

*Alu Like is a non-profit organization funded by federal grants. Its purpose is to educate and train Hawaiian people.

NATURAL ENVIRONMENT

OBJECTIVE A

TO PROTECT AND PRESERVE THE NATURAL ENVIRONMENT OF OAHU.

The natural environment, the scenic backdrop of the Koolaus and the waters of Waimanalo are major resources of the Park. Every effect is made to make the Park compatible with these surroundings. The natural features of Makapuu Point will be unchanged by the proposed action since the new displays will be constructed within the existing Park boundaries.

Plants, birds, and animals unique to Hawaii will be the major display features of the proposed changes.

OBJECTIVE B

TO PRESERVE AND ENHANCE THE NATURAL MONUMENTS AND SCENIC VIEWS OF OAHU FOR THE BENEFIT OF BOTH RESIDENTS AND VISITORS.

It provides an opportunity for the visitor to experience and "see" the island reef and off-shore environment without physically entering or disturbing the reef ecosystem. In that regard, SLP satisfies the curiosity of thousands of visitors concerning the marine environment without directly impacting the reef and offshore waters.

In addition, the Park is located on the mauka side of Kalanianaole Highway and thus does not affect ocean views from the road.

HEALTH AND EDUCATION

OBJECTIVE B

TO PROVIDE A WIDE RANGE OF EDUCATIONAL OPPORTUNITIES FOR THE PEOPLE OF OAHU AND TO MAKE HONOLULU THE CENTER OF HIGHER EDUCATION IN THE PACIFIC.

SLP supports the policies underlying these objectives. In 1979, 25,652 school children were provided the opportunity to learn about the marine environment in the informal atmosphere of the Park's educational program tours.

By working with the high schools and Alu Like, SLP provides training in marine science to young people. In doing so, the Park is encouraging the development of an increasingly important and employable skill while helping to improve the quality of higher education in Hawaii.

CULTURE AND RECREATION

OBJECTIVE B

TO PROVIDE A WIDE RANGE OF RECREATIONAL FACILITIES AND SERVICES THAT ARE READILY AVAILABLE TO ALL RESIDENTS OF OAHU.

SLP provides a unique water-oriented environment which is an educational and recreational experience at the same time. There is nothing in Hawaii comparable to SLP's program which is used extensively as a resource by the public school system.

It presents a very positive image of Hawaii's culture and natural resources to the visitor population and it contributes to the overall knowledge of the marine environment.

C. Detailed Land Use Map (DLUM)/Proposed Development Plan (DP)

As a policy document, the Detailed Land Use Map (DLUM) is a further refinement of the 1963 General Plan and therefore will be repealed upon adoption of the proposed Development Plan (DP) for the Ko'olaupoko area.

The DLUM designates the usable area of SLP land for park use which matches the current use and the proposed expansion (see Exhibit IV-3).

The DLUM's designated area of the remaining Makapuu area are displayed on Exhibit IV-3. The mixture of uses recommended for the area includes residential, golf course, low density apartment, resort, preservation, military, commercial and park. The uses recommended for parcels immediately adjacent to the Park are commercial at the lookout, preservation for the slopes behind SLP and park for the makai lands and beach areas.

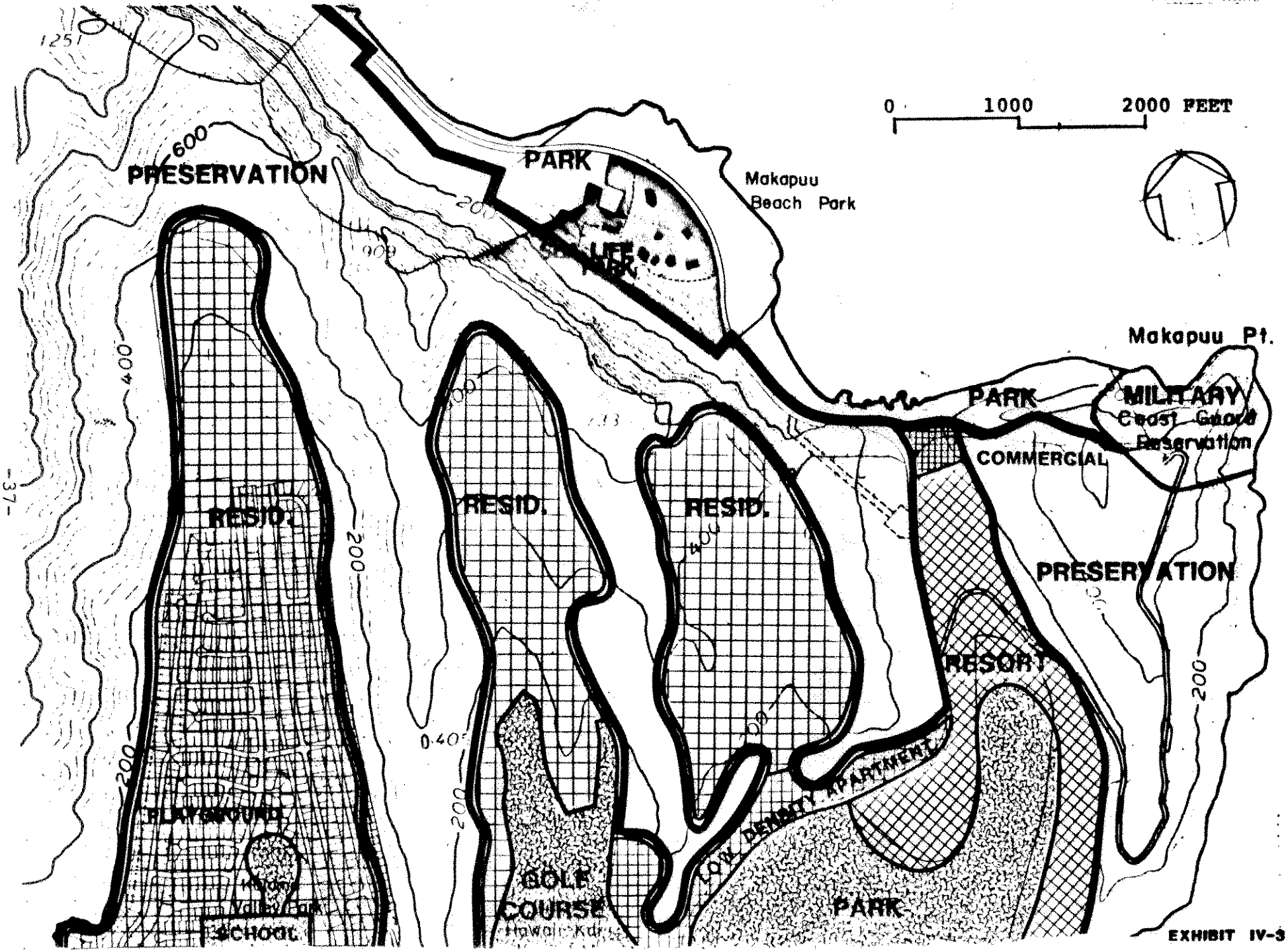


EXHIBIT IV-3

DETAILED LAND USE MAP

The proposed Ko'olaupoko Development Plan (Exhibit IV-4) designates the Park as preservation which coincides with the State Land Use designation of conservation and the existing zoning.

D. Zoning

SLP is zoned P-1 Preservation District (Exhibit IV-5).

The Comprehensive Zoning Code for the City and County of Honolulu legislative intent for the P-1 district states: "It is intended that all lands within a Preservation District which are under State Conservation District jurisdiction shall be governed by the requirements and procedures of Chapter 205, HRS, as amended." Since SLP is in a State Conservation District, Regulation 4 of the Department of Land and Natural Resources applies to this area. No change in this regard will occur as a result of the proposed action since the historic, existing and future use of the site will be park and recreation.

E. Special Management Area Regulation

The Special Management Area (SMA) includes the entire area of the Park and the lands extending in both directions up to the mountain ridge as shown on Exhibit IV-6.

The SMP is regulated by Ordinance No. 4529 of the City and County of Honolulu with the intent to preserve and protect the natural resources of the coastal zone of Hawaii.

SLP will file for a Special Management Permit at a later date. However, for the reader's benefit and clarification of the proposal, Ordinance No. 4529 is reviewed here with regard to the proposed project and how it complies with SMA requirements.

Section 4 of the Ordinance details the guidelines for review of the proposed action. These terms and conditions are intended to insure that:

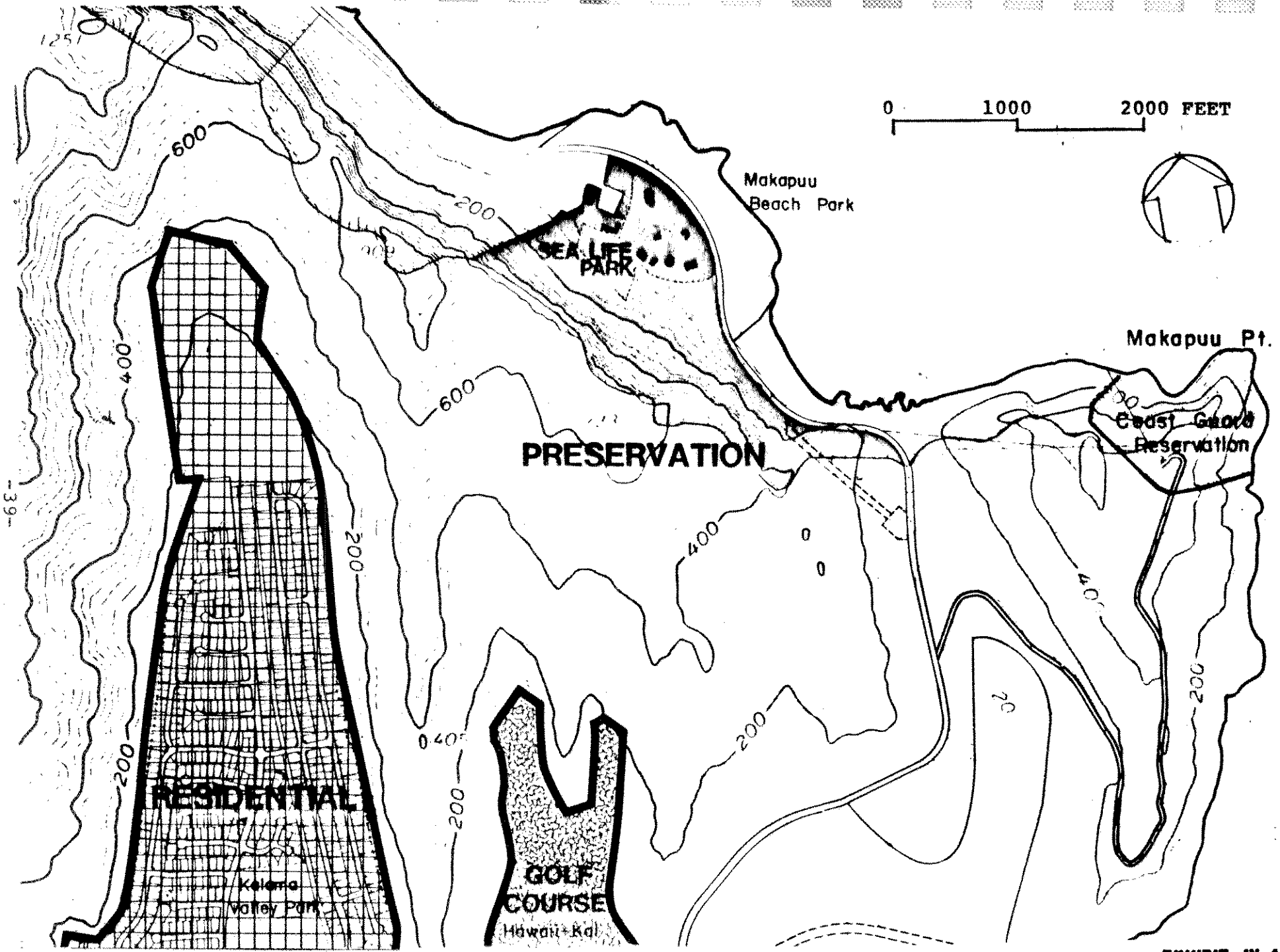


EXHIBIT IV-4

DEVELOPMENT PLAN (PROPOSED)

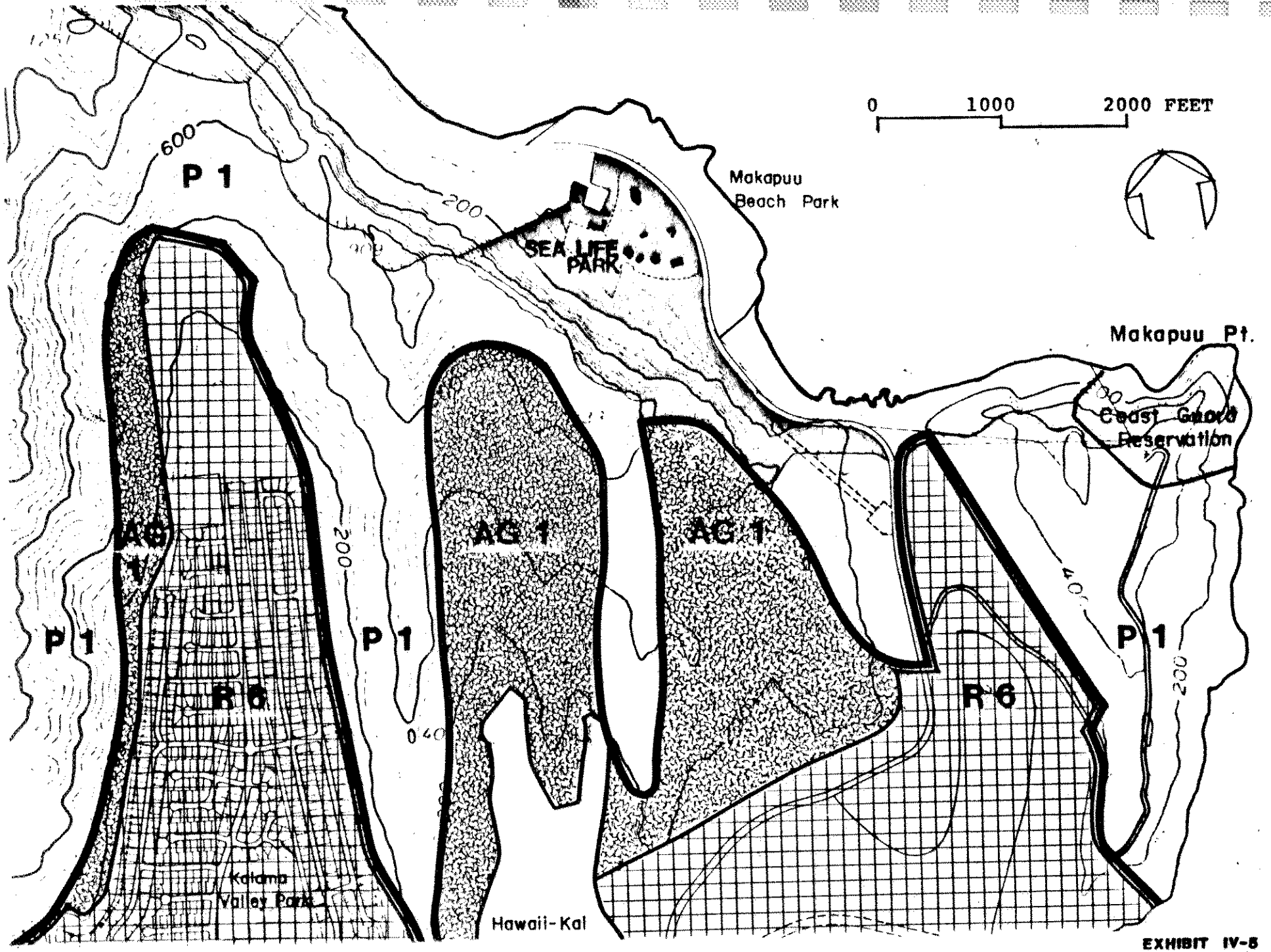


EXHIBIT IV-5

ZONING

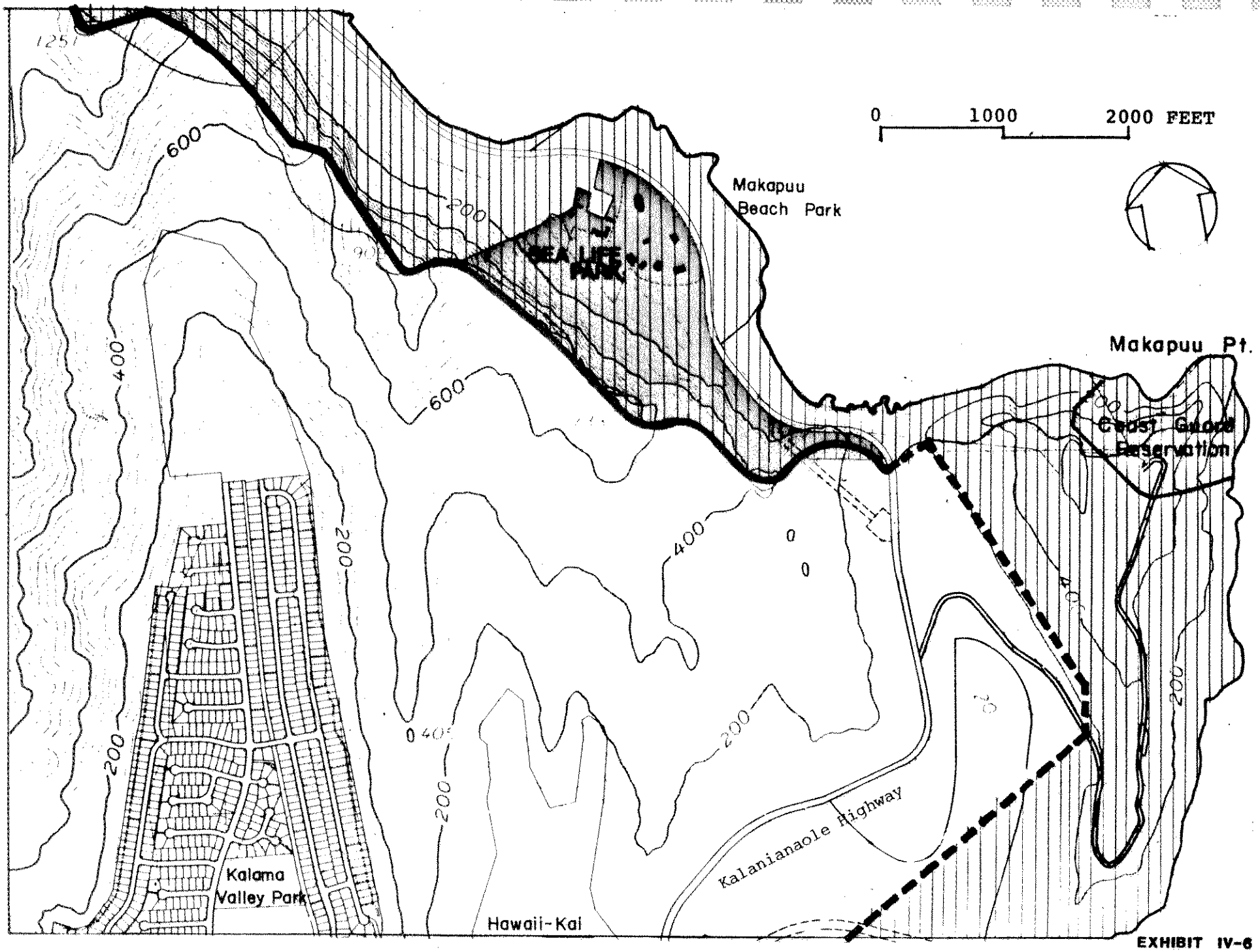


EXHIBIT IV-6

SPECIAL MANAGEMENT AREA

ADEQUATE ACCESS TO PUBLICLY OWNED OR USED BEACHES ... IS PROVIDED TO THE EXTENT CONSISTENT WITH SOUND CONSERVATION PRINCIPLES.

Beaches in the immediate area include Makapuu Beach Park and Kaupo Beach Park. Since opening in 1965 SLP has co-existed well with the beaches. SLP is located Mauka of the highways, has had no negative impact on the beach activities, and attendance at the beaches has increased dramatically over the years.

ADEQUATE AND PROPERLY LOCATED PUBLIC RECREATION AREAS AND WILDLIFE PRESERVES ARE RESERVED.

The public recreation areas have been retained and hundreds of thousands of residents are attracted to the beaches here annually. As wildlife preserves, the offshore islands near Makapuu Point are unaffected by SLP.

PROVISIONS ARE MADE FOR SOLID AND LIQUID WASTE TREATMENT, DISPOSITION AND MANAGEMENT WHICH WILL MINIMIZE ADVERSE EFFECTS ON SPECIAL MANAGEMENT AREA RESOURCES.

Solid waste originates from two sources, the Park administration/operation and the restaurant. Park waste is relatively constant while the restaurant waste fluctuates slightly based on the number of meals served per week. The waste disposal averages are as follows:

	Number of Dumpsters	Size	Frequency of Pick-up
Restaurant	3	3 cy	6 each week
Park	1	5.5 cy	6 each week
	1	30 cy	as needed

Disposal service is provided by a private contractor with final dumping at the Kapaa Landfill.

Liquid waste disposal is required for the saltwater system serving the animal tanks and for the domestic sewage.

The animal tank saltwater supply is circulated once and disposed into three injection wells within SLP area. The highly permeable soils readily accommodate the amount injected. The dilution of animal waste is discussed in Section V.B. - Hydrologic Impacts.

Presently, sewage from the restaurant and restrooms is disposed of into an existing cesspool.

ALTERATIONS TO EXISTING LAND FORMS AND VEGETATION, EXCEPT CROPS, AND CONSTRUCTION OF STRUCTURES SHALL CAUSE MINIMUM ADVERSE EFFECT TO WATER RESOURCES AND SCENIC AND RECREATIONAL AMENITIES AND MINIMUM DANGER OF FLOODS, LANDSLIDES, EROSION, SILTATION, OR FAILURE IN THE EVENT OF EARTHQUAKE.

There will be only minor alterations for the parking lot expansion and some grading for the structures to be built. These changes are minor as to be unnoticeable concerning water resources and scenic and recreational amenities. There is no significant land form on the SLP grounds. The steep pali begins well beyond the developed area and will not be affected by the proposed changes. In the event of earthquake dangers due to flood, landslide, erosion, siltation or failure could occur to any property in the epicenter area. However, SLP is located on an elevated ledge away from the pali slide area and some distance from the shoreline. In case of a severe quake, SLP would be the least affected of any development in the area. The structures are either one or two stories, further minimizing potential hazardous effects from a quake.

The alterations proposed will be on sites which are already close to the elevations required for construction. A minimum amount of grading will be done in preparation for construction and all will be conducted in a manner which will disturb the site as little as possible. Soil removal and grading will be accomplished while SLP is open and in full operation. Every effort will be made to keep dust and debris at very low levels to prevent damage to the sea animals living in SLP as well as keeping visitors comfortable during their stay.

A further requirement of Ordinance 4529 is to avoid adverse impacts. In that regard, the SLP proposal would not affect any water area, would not reduce the size of any beach nor the size of any recreation area. Access to tidal lands, beaches, rivers, and streams would not be affected. The line of sight to the sea from the highway would be unaffected and water quality, open water areas and estuarine sanctuaries, would be completely unaffected.

SLP is located mauka of Kalanianaole Highway and would have no effect on access to Makapuu or Kaupo.

F. Federal Flood Insurance Program

The United States Department of Housing and Urban Development, Federal Insurance Administration has established potential riverine and tsunami flood areas for the island of Oahu. Since SLP is completely removed from any potential flooding, the insurance program is not an issue for SLP or its proposed expansion. Potential flood areas are primarily along the beachline across Kalanianaole Highway and at the far end of the Oceanic Institute. (See Exhibit IV-7)

In the Federal Insurance Administration mapping and coding system, zones A1 to A30 designate areas of 100-year flood. Zones V1 to V30 designate areas of 100-year coastal flood with velocity (wave action), including but not limited to hurricane wave wash or tsunamis. "V" zones are also known as "coastal high hazard areas." In the coding system, the numbers following the letters of the alphabet determine flood insurance rates, with high numbers commanding higher insurance rates.

SLP is in Zone D - which carries a remote possibility, but still undetermined flood hazard. That is, there is a 1% chance of Zone A lands being flooded in any given year, 0.5% of Zone B lands being flooded in any given year, less for Zone C, and considerably less chance of flooding in Zone D, which includes SLP. Therefore, the conclusion reached is that flooding by riverine or tsunami causes is so remote a possibility for SLP that it was removed as a concern from this EIS.

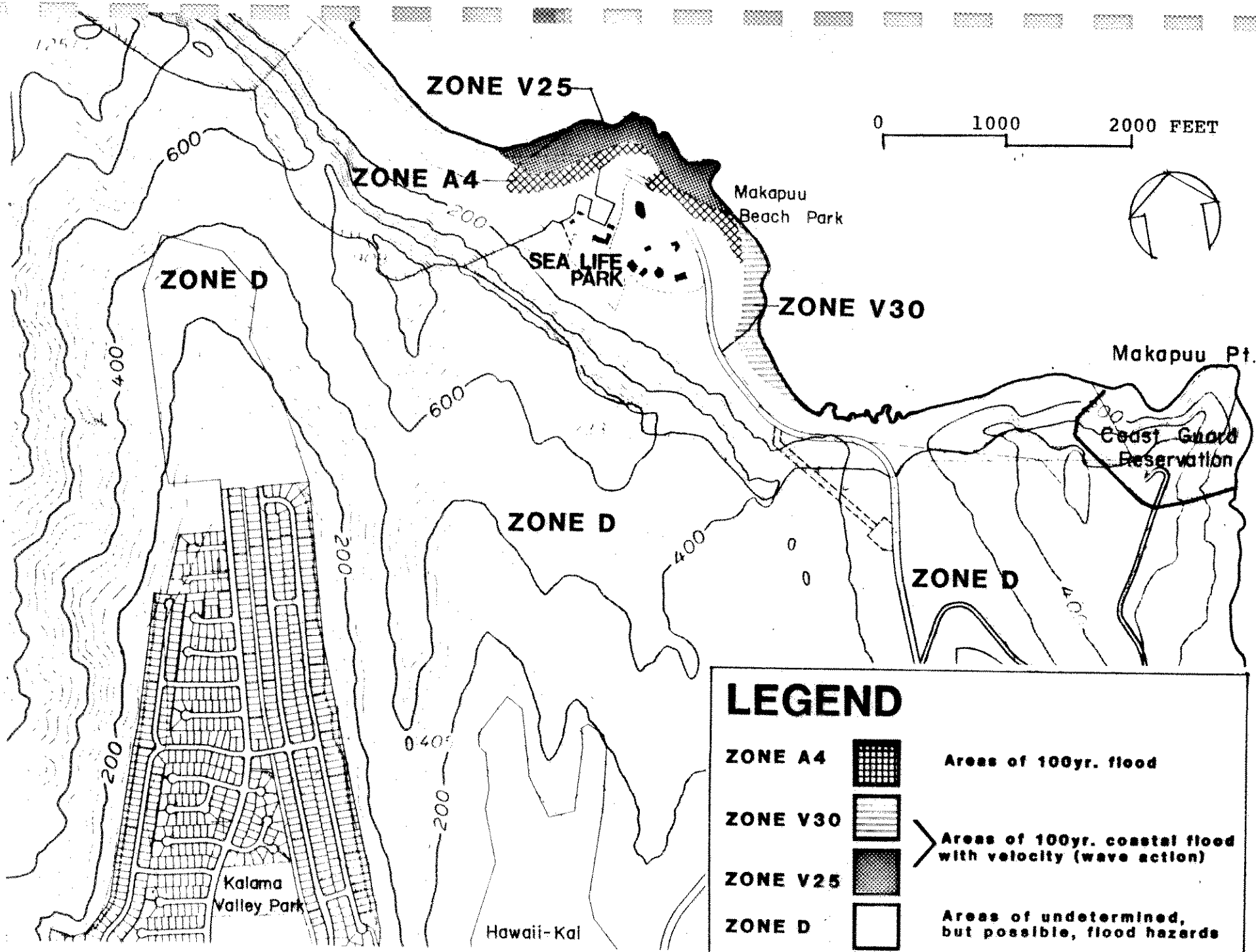


EXHIBIT IV-7

FLOOD INSURANCE RATE MAP

V. PROBABLE IMPACTS OF THE PROPOSED PROJECT

A. Impact on Geologic and Pedologic Resources

Soils at SLP are fill, rock and rough broken land (see Exhibit V-1). The fill land (FL) straddles Kalanianaole Highway due to excavation and fill during construction of the road. The front portion of the Park is also fill and is the location of most of the exhibits planned for construction.

No construction is proposed for the middle portion of the site which is composed of rock land (rRk) with exposed rock covering 25-90% of the surface. Rock outcrops are mainly basalt and andesite thinly and discontinuously covered with a powdery brown soil of low organic content. The area is semi-arid, annual rainfall being about 30 inches.

The third type of soil in the upper reaches of the site is classified as rock outcrop (rRO) which has exposed bedrock covering more than 90% of the surface. No existing or proposed facility or structure would be on this soil type.

Disturbance of the area for the expansion will be minimal and will be on previously disturbed ground. It is already relatively level so that clearing, leveling and compacting will be at a minimum. After construction is completed, soils with high organic content will be added to the areas to be landscaped.

New saltwater intake lines will be installed underground. Soil disturbance will consist of drilling of wells for the saltwater pumps and saltwater dispersion and trenches sufficiently wide and deep to safely bury the 24" waterline. Sand or other bedding materials will be put into the trench to cushion the pipe. The trench will then be backfilled with the material that was originally excavated.

B. Hydrologic Impacts

Park operations require the use of substantial quantities of saltwater and normal amounts of potable water. Presently saltwater intake is by two pumps located near the shore. Potable water is supplied to the Park by the municipal water system.

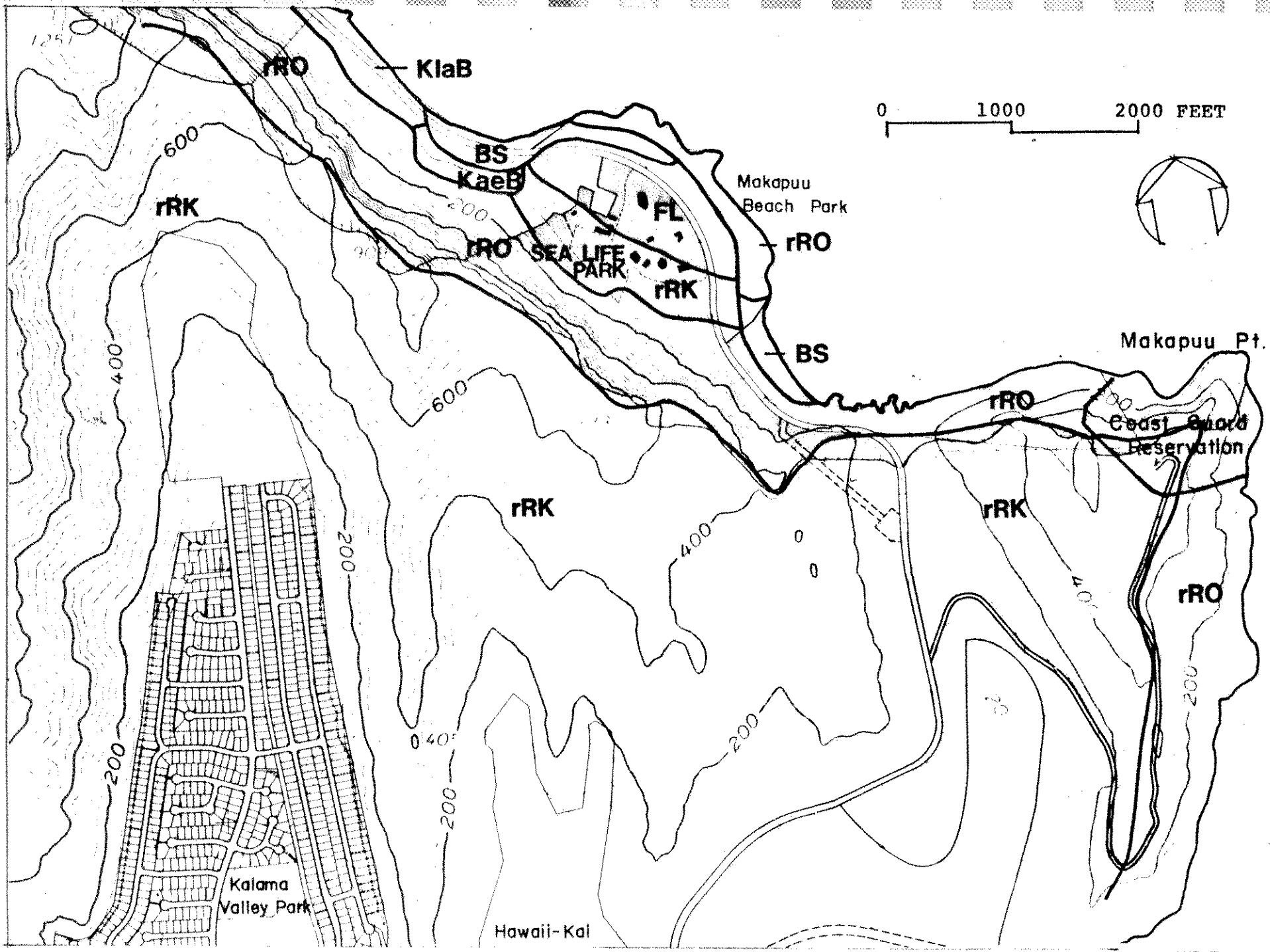


EXHIBIT V-1

SOILS MAP

The proposed construction will require an additional 8.3 million gallons per day of saltwater which can only be made available with additional waterlines and pumps.

The saltwater disposal system will also be increased with at least 4 additional injection wells. The water contains the end products of animal metabolism (less than 14 ppm) and solutions of calcium hypochlorite, used weekly for cleaning purposes (400 lbs.).

The present dilution factor for calcium hypochlorites is approximately 1 lb. per 252,000 gallons and would be reduced to 1 lb. per 334,250 gallons with the proposed system.

Federal Marine Law (Marine Mammal Act of 1972) requires SLP to maintain coliform counts in its marine mammal enclosures of less than 1,000 per 100 cc. Counts are required on a weekly basis. The counts rarely exceed 100 per 100 cc and are usually 25 or less. 200 per 100 cc or less is the limit set by State of Hawaii Public Health Regulation Chapter 37-A Water Quality Standards.

Since SLP began operating its saltwater intake and disposal system in 1963-1964, the effects, if there are any, on the shoreline and ecosystem have been unnoticeable. Neither salinity nor temperature changes occur as a result of this interchange. The porous volcanic rock acts as a purifier of the water and the same amount that is pumped out of the saltwater table is returned through the injection wells. The result of saltwater injection on the area hydrology is balanced by the intake of the same amount of saltwater in the same water table area. In SLP the Ghyben-Herzberg freshwater lens is virtually nonexistent beneath the area where the injection wells will be constructed.

The proposed improvements will require an additional 48,000 gallons per day of potable water obtained from the City and County Board of Water Supply's system. The Board will review and approve construction plans and will allocate water for the project depending upon the availability of water at the time the building permits are submitted to them.

Freshwater required for irrigation of landscape areas is returned to the ground at a rate that will affect only the moisture content of the surface soils. The present potable water system is sufficient to meet the increased water demand that will be required to serve the focal theme restaurant (seats 350) and other improvements that will require potable water for drinking, washing and sanitation purposes.

Runoff from impervious surfaces will increase in an amount directly proportional to the increase in roof and paved areas. Rainfall at Makapuu Point is very low, however, and runoff is readily accommodated by the porous volcanic rock. With correct construction procedures, and proper landscaping the additional runoff caused by the increased pavement area can be controlled within the 21.5 acres of usable park land.

The roof runoff will be held in collectors to allow slower absorption into the ground. Walkways will be graded to permit gravity drainage of the landscaped areas.

The addition of fresh or salt water to the ground should have no significant impact on the hydrology of the area. Since freshwater will be slowly disbursed via cesspool or by ground application from runoff or irrigation, the hydrology will be unaffected by the freshwater. Therefore there are no negative impacts expected from the fresh or salt water from the proposed action at SLP.

C. Biological Impacts

The site of the proposed SLP expansion will be changed and permanently affected but only in insignificant amounts. The construction of exhibits and buildings will result in short range effects due to construction disruption. Construction will be spread over three phases, 1981-83, 1984-86 and 1987-90. (See Section III.F. on Phasing) By distributing construction over several years the potential construction impacts to the biota will be considerably softened. SLP is a major tourist attraction and, as such, it is essential that the construction not create detrimental effects in the area. The mammal residents are naturally sensitive to atmospheric changes and will be protected by careful control of construction dust, noise and vibration.

Long range effects from indefinite dedication of land area to exhibits and buildings are expected to be indiscernable. The proposed expansion is entirely within the existing SLP exhibit area. With the exception of the parking area the Sea Lion Stadium is the only one proposed for construction on a previously unused site. It is also one which is closest to both Kalanianaole Highway and the rear access road.

Indefinite commitment of the land to the proposed structures is acceptable given the minor amounts of land involved and the uses to which they will be put. The entire SLP is within the usable 21.5 acres and the proposed actions would be a contiguous extension of the existing exhibits in the direction of the highway.

Flora

Kiawe and haole koa are the predominant vegetation outside the landscape Park exhibit area. In order to extend the parking lot and build the Hawaiian fishpond/aquaculture exhibit, some Kiawe trees will be removed.

Beach sandalwood (Sandalum elipticum littorales)* presently grows in the area (Exhibit V-2), but proposed construction will occur in areas of sparse sandalwood growth. The Sea Lion Stadium will be designed and situated to avoid disturbing existing beach sandalwood trees.

*Beach sandalwood is under review for threatened and endangered status by the U. S. Fish and Wildlife Service.

Mark Charbonneau, Landscape Department Supervisor of SLP has been responsible for the major efforts involved in the re-establishment of beach sandalwood. Previous to Mr. Charbonneau's efforts, introduced shrubs such as haole koa, lantana, etc. were smothering many established plants and preventing the seeding of new plants. The area concerned is now nearly free of all pest plants with continuous care for removing weeds, watering and helping along of newly seeded plants. The number of plants has increased greatly as has the health of each of them.

Also as a note of interest, in August 1980, Mr. Charbonneau noted about 300 beach sandalwoods across the highway on Makapuu Beach Park. In December 1980, Mr. Charbonneau counted over 400 plants as indicated on Exhibit V-2. Many plants on the beach side are much larger than those found at SLP, some being 5-ft. tall with lateral spreads of 12-ft. or more. Groundkeepers at the park, are very aware of the beach sandalwood, according to the conversation Mr. Charbonneau had with a groundkeeper.

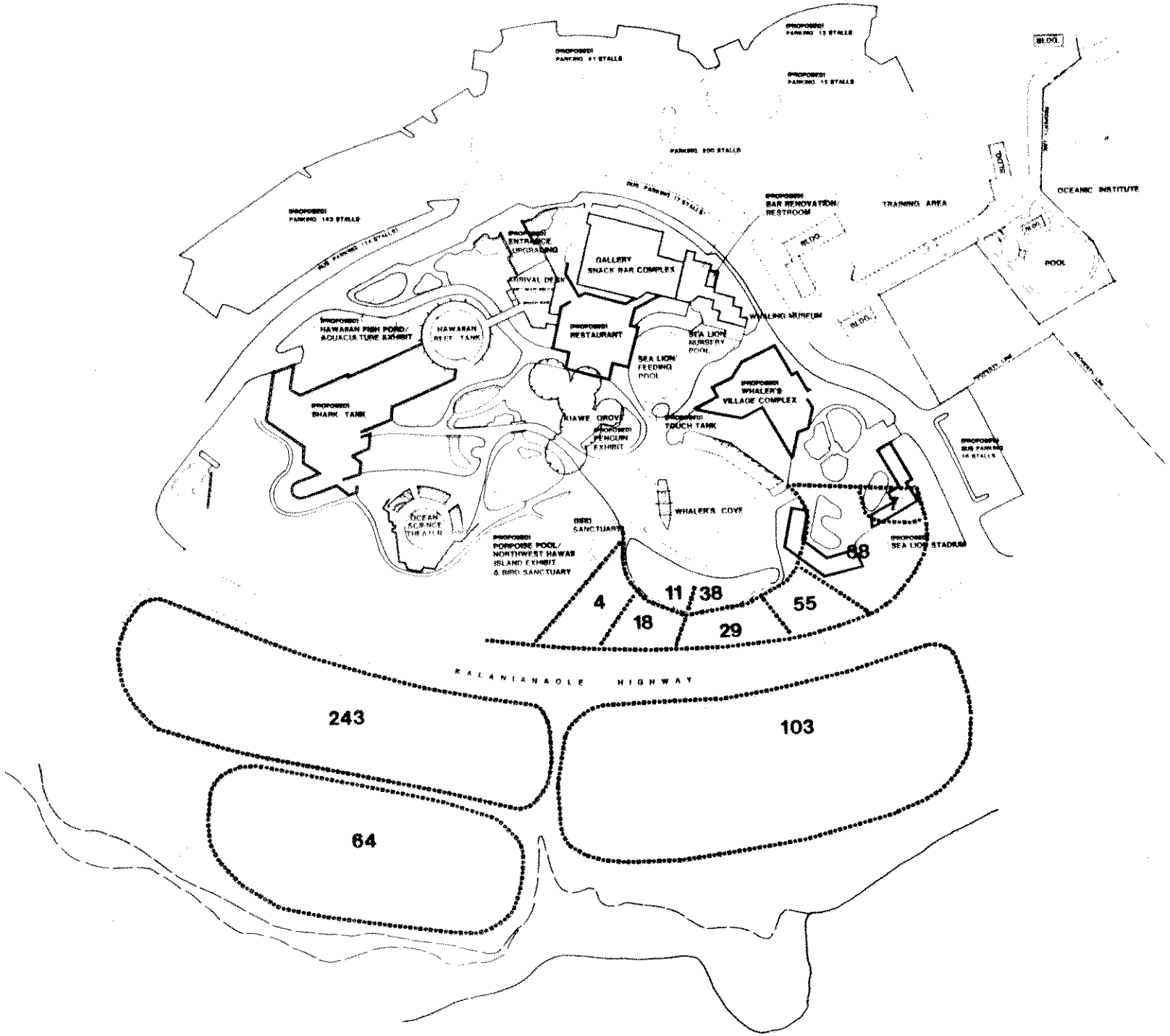


EXHIBIT V-2

BEACH SANDALWOOD GROWTH AREA

Birds

There are numerous birds species* at SLP which are expected to experience benefits from the proposed action. Until 1975, when a brush fire burned a small area behind the present bus parking, black-crowned night herons occasionally nested in the kiawe trees. Since the fire, no nests have been sighted in the area. All nesting now takes place behind the existing parking lot. The proposed changes will have no impact on existing night heron nesting areas but they will add areas for feeding, particularly in the Hawaiian Fishpond, Aquaculture Exhibit.

Seabirds of several species are common in the SLP area. Sooty terns, Noddy terns, Wedge-tailed shearwaters and Bulwer's petrels nest on Manana Island, 3/4 mile offshore. None of these species are displayed at SLP, however, many (particularly shearwaters and sooty terns) are rehabilitated and later released when they are found injured. These species only nest on the offshore islands, and not on SLP property, and would not be impacted by the proposed construction. Red-footed, Masked and Brown bobbies are displayed at SLP. These are free flying birds capable of leaving at any time. Red-footed boobies nest within Park grounds, but no nests have been observed in the areas of proposed construction. Masked and Brown boobies have not been known to nest at SLP, but have been handraised as chicks. The closest nest of these two species are at Mokumanu Islands, 10 miles NNW. Red-footed bobbies also nest at Mokumanu and on the adjacent Mokapu peninsula.

Frigate birds have never nested at SLP. The only frigates that have not been displayed are injured birds that have been turned over to SLP for care. They also nest at Mokumanu. The albatrosses that are displayed at SLP were captured as chicks in the NWHI and handraised at SLP. They are not known to nest on Oahu or any of its islets. Wild albatross are uncommon near SLP.

*The wild passarines - red-vented bulbul, common mynah, barred dove, spotted dove, house sparrow, shama thrus, house finch; the black crowned night heron; the seabirds - red footed booby, great frigate-bird, black footed albatross, Laysan albatross, wedge-tailed shearwater, sooty tern, common noddy, Humboldt penguins; and the Mallard duck.

Mammals

The possible impact on mammalism species would be their collection for display. SLP has collected marine mammals from Hawaiian waters since 1963. These collections had caused no serious negative impact on the Hawaiian cetacean fauna. No species of cetacean to be collected is considered threatened or endangered. All cetacean capture is regulated by the National Marine Fisheries Service (NMFS) under the Marine Mammal Act of 1972 and permits are required.

The collection of pinnipeds is also regulated by NMFS. Due to the SLP's highly successful breeding program, SLP does not anticipate future capture of California sea lions (Zalophus californianus) for the exhibit at the Sea Lion Stadium.

The sea animals living at SLP are particularly sensitive to the water quality of their marine environment. The water off Makapuu is one of the reasons why this site was selected for a sea life park.

The AA Water Quality off Makapuu is a major factor in the continuing success of the Park. As an alternative to the continuous saltwater flow, SLP investigated the use of closed or semi-closed water system of sufficient size to continually repurify the same sea water to maintain acceptable water quality.

Drawbacks are that water quality would not be comparable to that at Makapuu now. The system would be very costly, in the range of $750,000, and would require a considerable amount of space for pumps, filters and equipment housing. The risks are high, however, in that system failure or degradation of the supply can injure or kill sea animals, which are difficult and expensive to acquire.

The present system of using injection wells with natural ground filtering of the animal effluent could be replaced with a saltwater line run to the ocean for a direct discharge. The dilution factors are so great that before entering the injection wells the effluent to saltwater ratio

is 13% of the State Water Quality Standard presently in effect* for marine recreational waters within 1,000 feet of the shoreline, including public bathing areas. However, the injection well system provides a filtering of the water and slower entry of that water into the shore area.

D. Atmospheric Impacts

SLP provides for visitor viewing of sea animals and birds in a setting as natural as possible for the enjoyment and education of visitors. The people visiting SLP tour the grounds as they view the animals and birds. Occasionally groups gather for stage productions which demonstrate the unique abilities and talents of the sea animals. There are no atmospheric impacts of the environment which result from these activities.

Under normal trade wind conditions, the air quality at Makapuu would be unaffected by the 63 to 117 vehicles** entering SLP during any particular hour, because Makapuu Point is one of the three windiest locations on Oahu.*** With still air conditions, extremely infrequent at this location, there would be only a very minor concentration of suspended particulates or carbon monoxide resulting from vehicular traffic entering SLP.

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* State of Hawaii, Public Health Regulation Chapter 37-A, "Water Quality Standards".

** Approximately 1,760 people visited Sea Life Park each day in 1979 or an average of 234 people every hour. During the hours the Park is open, 9:30 A.M. to 5 P.M., a maximum of 117 vehicles would be entering the Park every hour if all visitors arrived by car with only 2 passengers each. That is a very high estimate, however, since many visitors travel by city and tour buses and most cars arrive with more than 2 passengers per vehicle. If only 330 of the visitors arrived by bus in 6 tour buses and the car arrivals average only 3 passengers rather than 2, the number of automobiles arriving decreases to 63.5 per hour.

***The other two are Kaena Point and Kahuku.

In downtown Honolulu where suspended particulate concentrations occasionally exceed the maxima set for the Hawaii Air Quality Control Region, the traffic flows are at least 15 times greater than at Makapuu. Because of wind velocities at Makapuu and the modest amount of vehicular traffic, atmospheric impacts from vehicular emissions at SLP were not measured.

SLP projections indicate an additional 455,000 visitors (to the 1980 count) to SLP by 1990 if steady 5% annual increases in visitorship are realized. This would mean an additional 166 people would arrive at the Park in any one hour in 55 cars or as few as 18 if 2 buses carried the remaining 110 passengers (a typical island-wide average of 55 per bus). Alternative travel methods, such as buses, significantly reduce the number of vehicles and therefore the emissions which might result from visitor arrivals.

The increased visitorship is expected to result primarily from a greater market penetration of the total Oahu visitors. Many of the new visitors to SLP will be those already on a Mini Circle Island Tour and encouraged to include SLP in their tour. Therefore, atmospheric impact by increased vehicular emissions is not an isolated phenomenon generated solely by SLP but a part of overall visitor industry activities.

E. Sonic Impacts

The proposed expansion at SLP could result in changes in noise levels in two ways. First, construction would temporarily increase noise levels. Secondly, greater numbers of shows and visitors may generate noise.

People who may be affected by noise levels are the employees at Oceanic Institute, Makapuu Beach Park users and employees at SLP. There are no residences or other activities close enough to the Park to be affected.

Present noise levels were measured on July 19, 1980 at several locations while shows were underway. There were 991 paid visitors in the Park at the time.*

*An average 1,758 visitors arrived at SLP daily in 1979. With an average 2 hour stay over the 7.5 hours the Park is open, about 475 visitors might be expected to be in the Park at any one time.

EXHIBIT V-3

SEA LIFE PARK NOISE LEVELS
AMBIENT AND SHOW PEAK

SHOW	LOCATION	AMBIENT	OTHER PEAK	SHOW PEAK
Ocean Science Theater	Closest Property Line	60-65	70+ traffic	65
Whaler's Cove	Waimanalo Entrance	62	68-70	inaudible
	Closest Property Line	62	70+	inaudible
	OI Property Line	55	-----	55-60
	Halfway between OI and Whaler's Cove	52-59	-----	55-60

General Radio SLM Type 1565-B
Calibration Date 7-9-80
Calibration Date of Calibrator 3-10-80
All recordings during shows at peak noise level.

Construction of the proposed expansion is to be phased over three phases of 1981-83, 1984-86 and 1987-90 as discussed in Chapter II.F. - Phasing of the Proposed Project.

Due to the nature of the Park's activities, disruption of shows and disturbance of the animals cannot be tolerated. Distributed over a 10 year time period, impacts from the proposed construction will be minimized to create as little disruption to other activities in the area as possible.

Construction of the associated water system and the parking expansion will result in noise due to excavation and grading which typically ranges from 79-89 dBA.* Other construction, erection and finishing will create noise levels from 76 to 89 dBA for short periods of time. Since peak noise levels for park shows are in the range of 55-65 dBQ (Exhibit V-3) construction noise levels will exceed those in the Park by 24 dBA. However, abutting activities will only be minimally affected since the Oceanic Institute activities closest to SLP are in enclosed structures and Makapuu Beach Park is far enough away to be unaffected by the construction noise.

Beach users on the weekends will not experience interference from the construction since most of that activity is conducted on weekdays.

Therefore, the uses and people most affected by those noise levels will be in SLP itself. Because the continued success of the Park relies on the natural setting and ambience of the area, every precaution and action will be taken to protect against unnecessary construction noise levels.

After construction, noise will result from shows staged in the proposed Sea Lion Theater. All other new operations will be passive viewing experiences or enclosed in structures. The Sea Lion Stadium is positioned to protect the viewing public from excessive winds and to make the best use possible of the view of the Koolau mountains toward Waimanalo. That orientation could create noise impacts on the closest Oceanic Institute building. However, the distance between the proposed Sea Lion Stadium and Oceanic's building is the same as the distance between Whaler's Cove and the Waimanalo entrance where noise level measurements were taken previously (Exhibit V-3). Whaler's Cove can accommodate up to 900 viewers while the proposed Sea Lion Stadium will accommodate 700, or 22% fewer people. Actual measurements of noise levels from the Whaler's Cove taken at the Waimanalo entrance indicate no audible difference during peak noise periods.

*Source: Bolt, Beranek and Newman (1971), Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.

In conclusion, noise during construction could cause some problems for uses and people in SLP itself, but every possible precaution will be taken to minimize the effects of noise on people and activities there. After construction, noises from shows will affect only those very close to the show area since the new outdoor stadium planned will seat 22% fewer visitors than the existing Whaler's Cove which has no noise impact now. Show times are staggered to allow a single group to move continuously from one show location to another, so the two facilities would not have simultaneous showings.

F. Visual Impacts

The design of the proposed expansion is underway and will not be finalized until the necessary government approvals are obtained. Therefore, this discussion provides only a general idea of ultimate visual impacts which may result.

Important views in the area are from Makapuu Lookout and from the Kalanianaole Highway both Mauka and Makai. The scenic lookout view will not be altered since the proposed additions will fit within the existing Park perimeter, and they will be small in scale, single level structures or tanks for the most part. The proposed Shark Tank would be the tallest facility with its 34-feet above ground level at the highest peak of the tank roof. When compared with the existing Reef Tank of approximately 40 ft. in height, the display of the proposed Shark Tank is not so significant. Other changes to the Park would be almost unnoticeable from the lookout point.

Views from the highway toward the ocean will not be affected by the proposed construction since all the changes will be mauka of the highway. Views mauka of the highway will not be altered significantly, as a berm that surrounds SLP will conceal improvements planned on the periphery of the park. Views in a mauka direction from the Makapuu Beach Park entrance are likely to be obstructed only slightly by the proposed Shark Tank.

Visual impact of the tank will be softened by an additional berm of approximately 20 feet that will conceal everything but the roof of the tank which will be done, as all the proposed facilities, in a color and design compatible with its natural surroundings. All improvements will be properly landscaped, including the proposed parking expansion.

The proposed pool and waterfall at SLP entrance will clearly indicate to the passerby that the Park is a water related use. It will not intrude on the vision of the casual passerby but will provide an instant visual signal that it marks the entrance to SLP.

G. Traffic Impacts

Access to SLP is by Kalanianaole Highway which serves the eastern part of Oahu from East Honolulu to the foot of the Pali Highway. At SLP the highway is two lanes, one in each direction. The Park entrance intersection also serves as the entrance to Makapuu Beach Park. There is no traffic signal at the intersection.

Traffic in the area is normally heavy in good weather on weekends and holidays when the beach park has the most visitors. Other activities in the area, fishing, camping, surfing at Sandy Beach, and sightseeing contribute to the traffic using Kalanianaole Highway at the Point.

The most recent traffic count on Kalanianaole Highway of 8,209 vehicles per day was taken at the lookout above SLP and Makapuu on March 28 (Tuesday) to 29 (Wednesday), 1978 (see Exhibit V-4).

The count reflects a distribution typical of leisure traffic in a recreational area as opposed to the urban distribution with a morning and afternoon rush hour peak. The traffic steadily increases to a mid-day peak which remains over 700 per hour from 11 a.m. to 3 p.m. and declines through the remainder of the afternoon. The flow is rather evenly distributed in both directions but the Waimanalo bound direction is clearly favored.

The road is designed to accommodate 1,425 vehicles per hour in both directions without a slow down in movement. Under present conditions the road operates well within its design limitations at 56% of capacity. No improvement or changes to the road or intersection are planned by the State Highway Department.

EXHIBIT V-4

SUMMARY COUNT OF TRAFFIC

KALANIANAOLE HIGHWAY AT MAKAPUU POINT LOOKOUT

	WAIMANALO BOUND	HAWAII KAI BOUND	TOTAL
A.M.			
6-7	83	95	178
7-8	131	141	272
8-9	186	172	358
9-10	327	173	500
10-11	461	216	677
11-12	454	257	711
P.M.			
12-1	416	294	710
1-2	450	347	797
2-3	413	332	745
3-4	330	327	657
4-5	323	329	652
5-6	238	268	506
6-7	161	208	369
7-8	114	111	225
8-9	113	97	210
9-10	78	74	152

Source: Hawaii State Department of Transportation, Highway Division. Taken March 28-29, 1978 by meter.

Casual counts taken by lifeguards for the City and County Department of Parks and Recreation indicate an annual total of 673,512 people at Sandy Beach and 482,364 at Makapuu Beach Park for 1978-1979. These estimates are taken only at beaches with lifeguards so none are available for Kaiona or Kaupo Beach.

Except for occasional city bus riders most beach park visitors arrive by car. At Sandy Beach the above visitor counts would require 922 cars daily with 2 riders in each or 615 cars with 3 riders in each to carry that number of people averaged over 365 days. For Makapuu Beach Park the count would require 660 cars with 2 riders in each or 440 cars with three riders in each to carry the estimated number of visitors to the beach averaged over 365 days. The total daily figure could range from 1,055 to 1,582 cars daily just to handle arrivals at the two beach parks.

SLP arrivals presently bring another 645 vehicles to the Point every day for a total maximum of 2,227 automobiles stopping at Sandy Beach, Makapuu Point or SLP out of the 8,209 total traveling around Makapuu Point each day. Therefore, 73% of the total is stopping elsewhere.

Total projected arrivals at SLP for 1983 when the parking expansion is complete would be 733 cars and by 1990 the maximum of 1,168 or fewer would be reached. These figures added to the two adjacent beach park traffic* total 2,315 in 1983 and 2,750 by 1990, still a reasonable proportion of the 1978 traffic flow and a fraction of the 11,400 the road can handle during an eight hour day.

Contrary to common assumption, the average number of visitors to SLP on weekends is less than the average number of weekday visitors: 1,500 on Saturday and 1,600 on Sunday compared to 1,760 on weekdays. Given these figures and the fact that the upper range figures used above for traffic to Sandy and Makapuu Beaches reflect typical weekend counts, weekend traffic impact would not be significantly different from reported weekday counts.

Unfortunately there are no figures available on the distribution of SLP visitors by direction of approach and departure to determine the traffic impact on Hawaii Kai and Waimanalo. The only statement that

*Beach park attendance is assumed to remain level since no parking expansion is planned at either site.

can be made with some certainty is that the increased tour bus traffic will not affect Hawaii Kai. As a general rule SLP is one stop on the "mini-circle island" tour. Tour buses that arrive at SLP from the west (past Waimanalo) will continue traveling to the east past Blow Hole and Hanauma Bay. Buses arriving from the east will pass these scenic spots before stopping at SLP and continuing past Waimanalo.

Assuming that automobile visitors to SLP will be made by either tourists or Oahu residents bringing visitors to the Park, Hawaii Kai will not be impacted by "pass through" traffic. Tourists will be unfamiliar with the short-cut and would probably prefer the scenic route to view Hanauma Bay, Blow Hole and other scenic look-out points.

In most cases Oahu residents driving to SLP do so to accompany visitors. Since SLP is quite a distance from major populated centers, most Oahu residents would want to show their guests the many scenic sights along Kalanianaole Highway in one drive on the way to SLP than make another trip to cover places such as Hanauma Bay, Blow Hole and scenic look-outs that would be missed if the short-cut through Hawaii Kai is taken.

The traffic impact on Waimanalo should not be serious. Although traffic may increase by 20%, from 8,209 to 10,185 in 1990 (see Chart A), the 12,200 to 13,000 8 hour road capacity of Waimanalo (estimated by DOT) appears to be adequate.

CHART A

	1980	1983	1990
Cars to SLP[1)]	645	733	1,149
Cars to SLP and Sandy and Makapuu Beaches[2)]	2,227	2,315	2,750
100% traffic around Makapuu Point (assuming that SLP and 2 beaches continue to generate 27% of the traffic around Makapuu Point)[4)]	8,209[3)]	8,574[4)]	10,185[4)]

Source: 1) See page 61
2) See page 61
3) See page 61
4) Based on the fact 73% of the total traffic traveling around Makapuu Point is stopping elsewhere. See page 61.

The parking lot at SLP presently holds 200 cars and 21 buses (see Exhibit II-2). Each bus holds 50 people comfortably for a capacity of 1,050 visitors in 21 buses. Another 400 or 600 people might be visiting the Park by car with 2 or 3 riders per car. These are the present maximums under existing conditions. People come and go continuously but the preferred length of stay in the Park is 2 hours so that a continuous turnover at maximum capacity would result in a vehicle departing and arriving at a rate of 1.5 every minute.

The estimated 1,100 - 1,300 visitors every two hours which could result from a full car and bus parking area is very high. However, that many people are rarely in the Park at any one time since 1,760 per day is a more typical number of visitors. Tour bus arrivals average 8-10 per day carrying about 400 passengers. Seventy children arrive by bus daily. The remainder, or about 1,290 people travel by car. Assuming 2 people per car, 645 cars over one day would be accommodated in 3 separate groupings with 2.3 hour stays in the Park. Therefore, under existing conditions the parking area is adequate for the number of people presently visiting the Park.

By 1983, when the parking expansion is planned for completion an additional 531 daily visitors are expected for a total of 2,137 daily. The expansion will provide 209 more automobile parking spaces for a total of 409 and 16 more bus spaces for a total of 37 spaces for tour buses. Assuming buses carry a similar proportion of the visitors as they do now, about 708 visitors would arrive by car. With 2 passengers per car, auto arrivals would be about 733 per day. With 409 spaces there would be ample spaces to accommodate the expected number of cars and the turnover of spaces would be less than 2 times per day. Visitors could stay almost four hours in the Park and not displace another visitor trying to park on the grounds.

By 1990 the average number of visitors is projected to be 3,007 per day, of which 2,299 will arrive in about 1,149 cars. A turnover rate of 2.80 would be required to allow a stay of 2.38 hours in the Park, very similar to the optimal length of visit required to take advantage of all there is to see. The resulting impact on traffic in the area would be 2.5 vehicles arriving and departing the Park every minute.

H. Impacts on Historic and Archaeological Resources

Makapuu Point is the final point of land formed by what is probably the most recent eruption on Oahu. The vent is barely visible from below but is approximately 250 feet above the Park. The area was known as Ko'o-nā-pou, the old name for Kau-pō, which literally means staff posts which supported the thatched roofs of the stone houses in this village. Kau-pō was once a fishing village in the vicinity of the beach park and SLP.

Due to continuous disruption of the land along both sides of Kalanianaole Highway there is almost no trace remaining of the village. As the letter from Chiniago Inc., Archaeological Consultant (Appendix 3) indicates, an archaeological reconnaissance of the proposed parking lot expansion did not reveal the presence of any archaeological or historic remains. McAllister's publication on the Archaeology of Oahu* indicates that there was a Hawaiian Village in that location but no such site is listed in the State Historic Preservation office and no articles have been found in the area to suggest the existence of a site.

SLP will continue to consult with Chiniago Inc. as plans progress.

I. Impacts on Public Services and Facilities

Police

Police related statistics on SLP indicate very minor problems. The department has stopped tracking them in the same way as they do for the nearby beach parks. No significant impact on police services is anticipated by the proposed actions.

Bus

The impact of increased attendance of SLP on the bus service should be minimal, as current statistics show low ridership in this area.

According to the Honolulu Bus Study conducted for the City in October 1979 by ATE Management and Service Company, two bus routes and 17 buses serve SLP, stopping at the admission gate. With headways of

*J. Gilbert McAllister, 1933, B. P. Bishop Museum, which was used as a basis for the Sites of Oahu compiled by E. P. Sterling and C. C. Summers, 1978.

30 minutes in each direction, a City bus stops at the SLP admission gate every 15 minutes. During the study period, 22 east-bound buses and 21-west bound buses were surveyed during the week, resulting statistics follow:

East-bound: 56 passengers embarked at SLP during the study period (average 2.5 per trip).

117 passengers disembarked at SLP during study period (average 5.3 per trip).

364 passengers were on board the buses after the SLP stop (average 16.5 per trip).

West-bound: 55 passengers embarked at SLP during study period (average 2.6 per trip).

28 passengers disembarked at SLP during study period (average 1.3 per trip).

414 passengers were on board after the SLP stop (average 19.7 per trip).

Although regular service on weekends to SLP is reduced to stops every 30 minutes at SLP, the addition of a beach bus with 1 hour headways in each direction (from Honolulu Zoo to Waimanalo and back) results in practically the same service with buses stopping at SLP every 15 minutes. Assuming that the percentage of visitors to SLP using the City bus is the same on weekdays and weekends, the number of bus riders to and from SLP is smaller during the weekend since visitor attendance to SLP is lower on weekends.

Fire

SLP does not have a fire protection system that meets the City and County Board of Water standards. The response time from the Waimanalo Station under good conditions is 5-6 minutes. With the new construction and the Board of Water Supply requirements for fire protection, no significant impact on fire service is anticipated by the proposed actions.

Parks

No expansion of Makapuu Beach Park facilities is planned by the City, other than a camping facility currently being expanded. There will be no adverse environmental effects to the Makapuu Beach Park as a result of the proposed actions.

J. Impacts on Employment and Visitor Industry

SLP employs 126 people on the Park grounds and another 12 in the Waikiki business office. Of those, 13 have technical and supervisory responsibility, 63 are general non-technical and 50 are employees in the Galley restaurant and bar.

With no expansion of the Park facility another 6-8 non-technical personnel will be needed to manage the additional visitor traffic expected. If the expansion program progresses as planned, SLP will require additional people of whom 5 will be technical and/or supervisory and 15 non-technical. Since the Park expansion is planned to extend over a 10 year time frame the additional employees would be hired incrementally as the facilities are completed.

Exhibit V-5 shows the distribution of employees by place of residence and by race.

The distribution undergoes periodic change but generally retains a similar profile. The additional 20 employees to be hired when the proposed facilities are completed are likely to follow a similar distributional pattern.

Youngsters from the surrounding area are being trained in marine careers at SLP through the cooperation of Alu Like and local high schools.

Although the employment of 20 additional people in the Park will not have a significant impact on unemployment figures for Oahu,* operation of SLP has a significant impact by and on the visitor industry which is critical to the economic welfare of Oahu.

With a unique combination of the undersea world in an easily accessible location at a reasonable price, SLP attracted about 690,000 visitors in 1979, as indicated in Exhibit V-6. While a substantial proportion of them were repeat visitors who live on Oahu and school children, the figure represents only 19% of the total visitors to the island. Many of the visitors to Oahu travel the Mini Circle Island Tour around Makapuu Point but are not stopping to visit SLP. SLP expects to attract a

*Unemployment for the City and County of Honolulu was 6.1% while unemployment in the Kailua-Waimanalo was 5.4% in 1979.

EXHIBIT V-5

SEA LIFE PARK

EMPLOYMENT BY PLACE OF RESIDENCE AND RACE

PLACE OF RESIDENCE	SEA LIFE PARK %	RESTAURANT %
Waimanalo	41	62
Hawaii Kai	27	10
Kailua	13	8
Kaneohe	4	20
Town	15	-
RACE		
Part Hawaiian	32	70
Oriental	33	16
Caucasian	35	10
Black	-	4

EXHIBIT V-6

SEA LIFE PARK/OAHU

VISITOR COUNT

	Oahu	Sea Life Park	% of Oahu
1964	507,533	221,600	44
1965	618,235	301,500	49
1966	751,910	322,827	43
1967	1,012,336	404,466	40
1968	1,183,114	434,661	37
1969	1,374,311	447,898	33
1970	1,572,273	440,850	28
1971	1,637,050	421,768	26
1972	2,019,939	420,202	21
1973	2,367,857	508,221	21
1974	2,507,840	531,188	21
1975	2,546,194	477,595	19
1976	2,898,136	551,000	19
1977	3,090,300	611,689	20
1978	3,303,278	709,280	21
1979	3,567,478	688,200	19
1980	-	722,600*	
1985	-	922,200*	
1990	-	1,176,900*	

*Projections made on the basis of steady 5% annual increase by Sea Life Park.

greater proportion of the visitor population, at an annual increase of 5%. Presently, the Park experiences many days when full capacity is reached. Without the proposed expansion, the Park expects to reach a point in the next three years where full capacity would be regularly experienced.

At that time, some expansion will be required to maintain a positive cash flow. Due to the ever increasing cost of operation SLP will be faced with the choice of increasing its price substantially or broadening its capacity. Substantially increasing admission charges* is undesirable since it would then be beyond the means of many, residents and visitors alike, to afford it.

Therefore, it is essential to increase Park capacity by improving its facilities to maintain the unique attraction for the people of Hawaii as well as visitors from outside the State.

K. Socio-Cultural Impacts

Since there is no resident population in the immediate vicinity** of SLP, socio-cultural impacts, if there are any, will result from daytime visitors to SLP, Makapuu Beach Park and from the distant Waimanalo and Hawaii Kai populations.

The field of socio-cultural effects from development is rather new and specific hard statistics are rarely available to fit particular study need. This is especially true in the case of SLP which provides an entertaining environment and an interesting work place for the youth of the area.

Typical conflicts which might be expected in an area where a proposed development is held in low regard are not expected here.

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* Present adult admission is $4.50 and children $2.75 (as of December 1980).

**The first residence is 1.0 mile, the Waimanalo commercial area 2.6 miles, and Hawaii Kai 5.2 miles from Sea Life Park.

Community attitudes toward the Park are generally favorable. The people who work in the Park are proud of being part of the marine research center and sea animal performance. SLP also cooperates with Alu Like and the local high schools to train the young people in marine careers. SLP is closely associated with the Windward side of the island since 62 of the 126 Park employees reside in Waimanalo, 14 in Kailua and 13 in Kaneohe.

Some conflicts are bound to occur as use of Makapuu Beach Park increases because visitors to both are in close physical proximity in good weather or good surf conditions. However, the Park proposes to provide additional parking to ensure that visitors to the Park have ample spaces without parking on the road where many beach goers now have to park.

By providing a window into the reef and undersea environment SLP gives visitors the experience of being in the natural environment normally only experienced by those living in the immediate Makapuu area or experienced divers. This is achieved within the Park boundaries without infringing on the beaches and waters off Makapuu and Waimanalo.

The compact size of the Park, 21.6 acres, presents no growth challenge or competition to people who use Makapuu Point regularly. The Park will stay within its existing boundaries.

The Hawaiian culture prior to U. S. and European arrivals will be featured in the proposed Hawaiian Fishpond/Aquaculture Exhibit. Graphic displays will be provided with that exhibit and the Shark Tank to demonstrate the early Hawaiian lifestyle and fishing practices.

Socio-cultural impacts are expected to be favorable as the Park will provide a Hawaiian educational and experiential opportunity for visitors without transgressing into the residential and recreational areas normally used by residents.

VI. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Adverse environmental effects which cannot be avoided will primarily be those caused by construction and disruption of previously undisturbed soil where beach sandalwood is presently growing. The effects will be short-lived, however, since construction will be distributed over three phases; it will effect only the areas within the Park itself. The sandalwood will be replanted elsewhere on the grounds.

Some negative effects due to increased vehicular emissions may occur by 1990. However, these will be mitigated as required by increased bus ridership.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

There are only two possible alternatives to the proposed action, no expansion or selection of an alternative site for either the expansion or the whole park. The latter is not practical for both economic and environmental reasons. Assuming a site could even be found, relocation of part or all of the Park to an alternative site would require a location near the ocean as close as possible to SLP to permit some coordination of administration. A good supply of high quality saltwater with the necessary easements, leases and permission would be required. Neighboring uses would be affected unless a very remote site could be found, which would probably carry its own set of environmental concerns.

When combined with the extraordinary costs that would be involved, the above points rendered this choice impractical. This option did not survive initial scrutiny as a possible alternative to the proposed action.

No expansion is a simple fallback position and could be easily accomplished. This, however, would not be in the best interests of either the general public nor of SLP.

The public expects a great deal from modern educational/recreational facilities. A static and never changing array of exhibits would soon lose its attractiveness to Oahu residents and the Park would no longer be able to satisfy its own educational objectives. Nor could it comply with its lease conditions which require SLI to conduct a "wholesome recreational and educational attraction in a healthy, park-like atmosphere commensurate with the best features of first-class public or private attractions of a similar nature in the U. S."

That loss of attractiveness and favorable comparability with mainland attractions would not only result in a second rate park for Oahu residents and visitors, but in the long run would necessarily lead to decline and failure of the Park due to a decrease in visitorship and revenue.

While no action would be an easier resolution in the short run, the long range effect would severely threaten the existence of the Park and would be contrary to the public interest.

VIII. RELATIONSHIP TO LONG-RANGE GOALS

In order to achieve the long range goals of the proposed project, minor short-term losses will be experienced in terms of construction disruption. However, that disruption will not be environmentally significant. It will be distributed over a period of ten years according to the phasing schedule. Therefore, the actual perceived effects will be suppressed to several short periods of construction with intervening periods of no construction.

IX. MITIGATION MEASURES

Care will be taken during construction to mitigate dust, noise and vibration impacts which will be minor due to the distribution of the construction over ten years.

Beach sandalwoods will be carefully replanted in the vicinity. All animal captures are conducted under State regulations.

Vehicular emissions are mitigated by encouragement of bus travel. Ample bus parking areas are provided.

X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

In the strict sense, the only "irreversible and irretrievable" commitment of resources that would result from the proposed SLP expansion involves the construction material that would be used, the financial capital that would be tied-up, and the labor input that would be needed to build and operate the Park. These resources will not be available for other uses.

XI. OFFSETTING CONSIDERATIONS OF GOVERNMENT POLICIES

As discussed previously in this document, the proposed action conforms with the existing government policies and construction of each facility will be strictly adhered to the government codes and regulations. Therefore, no offsetting considerations of government policies are required.

XII. ORGANIZATIONS AND PERSONS CONSULTED

City and County of Honolulu

Board of Water Supply
Fire Department
Police Department
Department of Public Works
Department of Parks and Recreation
Department of Transportation Services
Department of General Planning

State of Hawaii

Office of Environmental Quality Control
Department of Land and Natural Resources
Department of Planning and Economic Development
Department of Transportation
Department of Health

Other

Life of the Land
Shoreline Protection Alliance
Waimanalo Neighborhood Board
Green Peace (Jack Schweigert)

XIII. COMMENTS AND RESPONSES DURING THE CONSULTATION PERIOD

October 1, 1980

Dear

According to the Environmental Impact Statement (EIS) Preparation Notice announced in the Environmental Quality Commission Bulletin of March 23, 1979, EDAW is in the process of preparing an EIS for the proposed expansion of the existing Sea Life Park. Because the project may have a number of potential effects on Oahu's eastern shore, including some that may be of concern to your organization, we are transmitting a copy of the 343, HRS Environmental Assessment/Determination prepared for the project by the City and County of Honolulu Department of Land Utilization. It provides a general description of the proposed action as well as a broad indication of the types of impacts that may be expected.

It is our intention to explore all aspects of the project's probable impacts in the EIS. We would appreciate it very much if you would help us in this task by writing the specific questions or concerns you want to see addressed in the EIS.

As you may know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency ... "upon good cause shown ...". It is our hope that you will make every effort to initiate your contact with us within the prescribed time period.

It is expected that the draft EIS will be completed by November 15, 1980, provided all goes as planned. At that time, the document will be circulated for review and comment by all of the parties that have expressed an interest in the project.

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

Meanwhile, should you have any questions, please call us at 536-1074. We would be more than happy to try to provide any information that we can.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs)
Principal

DHM:lt

Enclosure

LIFE OF THE LAND
A GROUP FOR ENVIRONMENTAL RESEARCH AND ACTION

October 30, 1980

Mrs. Duk Hee Murabayashi
EDAW Inc.
1136 Union Mall
Suite 201
Honolulu, HI 96813

RE: Comments for Sea Life Park EIS Preparation Notice

Madam:

Life of the Land has prepared the following comments for your consideration:

In addition to other concerns, major issues we would like to see addressed in the EIS are potential problems dealing with traffic hazards and congestion, and economic and social impacts affecting the community of Waimanalo. Enumerated below are our specfic questions and concerns.

1. How does this project relate to existing City and State zoning, proposed City Development Plans and to stated community goals?

2. What relationship does this project expansion have with existing and proposed projects associated with/or adjacent to Sea Life Park?

3. Address impacts on existing features of beaches or substantial alteration of hill/ground contours. Also assess scenic views from Kalanianaole Hwy. and beach areas.

4. Study cumulative traffic problems anticipated with the expansion of Makapuu Beach Park and Sea Life Park. Please pay particular attention to ingress and egress at park entrances and formulate mitigating measures to decrease hazards and congestion.

5. Describe employment opportunities, types of jobs and amount of full and part-time positions per/shift.

6. Study alteration of existing drainage pattern and discuss impacts on ground and ocean water quality from waste water injection.

7. Review impact of Sea Life Park visitors on increase use of sur-

404 PIIKOI STREET HONOLULU HAWAII 96814 TELEPHONE 521-1300

rounding City and State Beach Parks.

8. Review impacts on greater demanded for public services (i.e., fire, police, water, emergency ambulance, etc.)

9. Could this project affect any site listed or eligible for listing on State or National Registers for either cultural, historical, or archeological significance?

10. Alternative Actions should include consideration of both negative and positive effects of any such alternatives in relation to design, use, location, cost and time, and full consideration of the effect of no project.

11. Please include diagrams and artist depiction of this project expansion in order to assess aesthetic impact.

Thank you for giving us this opportunity to comment. If you have any questions concerning this please call me at 521-1300.

Sincerely,

Jim O'Rourke
LOL Staff

Encl.

cc: Waimanalo Neighborhood Broad
Waimanalo Joint Planning Committee

WAIMANALO NEIGHBORHOOD BOARD

Final Compilation of Issues and Concerns by the Waimanalo Neighborhood Board for the Detailed Development Plans Work.

"We love our community and look to its future with hope and dreams. We shall neither allow for, nor acquiesce to, plans and directions which controvert a lifestyle encompassing the primary cultural, environmental and ethnic facets of Hawaii we all need to maintain and nurture. Waimanalo is one of the oldest and one of the last communities on Oahu where a truly Hawaiian lifestyle may still be enjoyed. We must work together to protect this land and her unique people."

-Waimanalo Community Response to the Revision of the Oahu General Plan, September 10, 1976.

We would like to preface this list of issues and concerns with the following items which we consider essential to the consideration of Development Plans for Waimanalo:

1. Inappropriateness and unsafeness of Bellows Field as a General Aviation Airport.
2. Preservation of Waimanalo Beach as undeveloped and uninterrupted from Wailea Point to Makapuu Point
3. Retention of agriculture and promotion of agricultural developments
4. Further development of recreational opportunities
5. The City and County should respect the wishes of the people of Waimanalo

ISSUES AND CONCERNS
Final List

A. LAND USE

Military:

1. No aviation use of Bellows Field.

2. No industrial use of Bellows Field.

3. Change current R-6 zoning of Bellows AFS to permit future uses of agriculture and recreation on appropriate lands. This is in keeping with the "green belt - open space" the community requests for Bellows land.

Agriculture:

1. All state owned lands now in the State Agricultural Land Use District should be designated for agriculture by the City government as well. State lands should remain in Agriculture.

2. The primary use of privately owned farm lands shall remain agriculture whether or not the lots are sub-divided.

3. DLUM designation of residential use on existing agricultural lands, fee simple, and state, is incompatible with Waimanalo's Rural designation.

4. DLUM Regional Park designation on state agriculture lands is not compatible with Waimanalo's Rural designation.

5. DLUM location of schools at Kumuhau and Mahailua streets, Foremost Dairies, and Mokulama street, not necessary with Rural designation.

6. Waimanalo Neighborhood Board requests further study of the three acre lot restriction for the keeping of farm animals.

7. Provisions should be made for agricultural processing plants in the fields.

A. LAND USE (cont'd)

Recreation and/or Public Facilities:

1. Eliminate DLUM designation of a Marine Park in Waimanalo as incompatible with Waimanalo's Rural designation.

2. Eliminate DLUM designation of Fairgrounds area as incompatible with our Rural designation.

3. Small boat launching ramp should not be allowed in Waimanalo.

4. Need hiking and horse trails with parking area for horse trailers. We recommend a trail route from Bell Street, along the Forest Reserve Boundary and the mauka boundary of Waimanalo Agriculture Park to Town and Country Stables and to Wailea Point.

5. Old Maunawili Road should be cleared for hiking and horseback riding trails.

6. Legal access to mountain areas for recreational pruposes is needed.

7. Such recreational uses as motorbike scrambling, hanglider landing, hunting and indiscreminent shooting and use of stream beds as unauthorized hiking trails should be prohibited in agricultural areas.

8. More land is needed for recreational uses, including land for several mini parks in our residential neighborhoods.

9. The DLUM designation for a high school needs to be changed to a District Park.

A. LAND USE (cont'd)

Other:

1. Land should be provided for an expanded Community Services Center.

2. No resort hotels on our beaches.

3. Eliminate DLUM resort designation for Wailea Point and for Wailea Street/Leumilo Street area.

4. Eliminate DLUM designation of all low and medium density apartment buildings.

5. No more Commercial zoning unless for a bank, Clinic or Medical Services, or a centrally located market for selling of ungraded produce by farmers.

6. No rezoning without notifying the people of Waimanalo through the Neighborhood Board.

7. Establish a Canoe landing site at Waimanalo Beach Park near the volleyball courts. The city needs to return that portion of land to the state to be administered by the State Parks Division.

November 25, 1980

Mr. Jim O'Rourke
Life of the Land
404 Piikoi Street
Honolulu, Hawaii 96814

Dear Mr. O'Rourke:

Re: Sea Life Park Expansion
EIS

Thank you for your comments on the subject EIS. We will be submitting the draft EIS to the State Environmental Quality Commission (EQC) shortly and have made every effort to address the concerns noted in your letter.

If, however, after reading the EIS, you find there are issues that you feel have not been sufficiently covered, please do not hesitate to comment during the 30-day review period following the distribution of the draft document by the EQC. We will be happy to respond to your comments at that time prior to any action by the City Department of Land Utilization.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Principal

DHM:lt

November 26, 1980

Ms. Sherry Broder
41-911 Laumilo Street
Waimanalo, Hawaii 96795

Dear Ms. Broder:

Re: Sea Life Park Expansion
Environmental Impact Statement

Thank you for your interest in the subject EIS. We will be submitting the draft EIS to the State Environmental Quality Commission (EQC) shortly. After reading the EIS, you find there are issues that you feel have not been covered or have not been covered sufficiently, please comment during the 30-day review period following the distribution of the draft document by the EQC. We will be happy to respond to your comments at that time prior to any action by the Department of Land Utilization.

Meanwhile, for your review we are enclosing a copy of Environmental Assessment/Determination by the Department of Land Utilization. It provides a general description of the proposed action as well as broad indication of the types of impacts that may be expected.

Should you have any questions, please call us at 536-1074. We would be more than happy to try to provide any information that we can.

Sincerely,

EDAW inc.

Duk Hee Murabayashi
Principal

DHM:lt

Enclosure

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

Environmental Law Center of the Pacific
250 South Hotel Street 2nd floor Auditorium Honolulu Hawaii 96813

October 17th

Dear Mrs Murabayashi

Pls send me a copy of the EIS for the proposed expansion at Sea Life Park. for our group would wish To comment.

Mahalo,

Jack

808 533 7491

XIV. COMMENTS AND RESPONSES DURING THE REVIEW PERIOD

GEORGE R. ARIYOSHI
GOVERNOR

HARRY Y. AKAGI
Acting Director
TELEPHONE NO.
548-6915

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

550 HALEKAUWILA ST.
ROOM 301
HONOLULU, HAWAII 96813

February 20, 1981

Mr. Michael M. McElroy, Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

SUBJECT: Environmental Impact Statement for Sea Life Park, Makapuu, Oahu

Dear Mr. McElroy:

We have reviewed the subject document and offer the following comments for your consideration:

1. Page 3
Page 3 indicates that the project site is on state-owned land and within the State conservation district. Please be advised that due to the involvement of state lands, the EIS will need Governor's acceptance.

2. November 28, 1977 Letter from Department of Land and Natural Resources to Mr. Ambrose Rosehill
Reference to the above letter indicates that DLNR approved the master plan for the proposed park. Has a conservation district use application (CDUA) been filed? If not, will a CDUA be filed?

3. Page 11 Porpoise Pool
The EIS states, "It will be built with the assistance and guidance of the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the State of Hawaii Division of Fish and Game (SHDFG)." What is meant by assistance? Will public funding be used for this project?

4. Page 42
The EIS lacks discussion on the tsunami zone. Will the proposed action be affected by a tsunami? If so, what mitigation measures will be implemented?

5. Documentation
The EIS should document statements regarding flora and fauna. Who conducted the surveys?

6. Page 64
What is the rationale for the statement, "Although the employment of 20 additional people in the park will have a significant impact by and on the visitor industry which is critical to economic welfare on Oahu"?

7. List of Approvals
EIS regulation 1:42 o. requires that a list of necessary approvals and their status be included in the EIS. We recommend the inclusion of the list.

An attached sheet lists the commenting agencies and/or private organizations for your convenience.

We hope that these comments will be helpful to you in preparing the revised document. Thank you for the opportunity to comment on this EIS.

Sincerely,

Harry Y. Akagi
Acting Director

Attachment
cc: EDAW, Inc. (w/attachment)

LIST OF COMMENTORS

State	
Department of Social Services and Housing	January 27, 1981
State Energy Office	no date
*Department of Health	February 9, 1981
City and County of Honolulu	
*Department of General Planning	February 5, 1981

*comments previously forwarded by reviewer

March 10, 1981

Mr. Harry Y. Akagi
Acting Director
State of Hawaii
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Akagi:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo of February 20, 1981 to Mr. Michael McElroy of the Department of Land Utilization:

1. A determination on the proper approving authority for the subject EIS is currently under review by City and State Agencies.

2. Conservation District Use Application (CDUA) is compulsory for land uses beginning after 1964. However, a CDUA was not required for the master plan discussed in the November 28, 1977 letter from DLNR to Mr. Ambrose Rosehill because all improvements in the master plan were required to fulfill the lease contract between DLNR and Sea Life Park signed in 1962.

3. For clarity, please replace the sentence in question on page 11 with the following:

   "All phases of construction and use of pool will meet requirements of the National Marine Fisheries Service (NMFS), U. S. Fish and Wildlife Service (USFWS) and State of Hawaii Division of Fish and Game (SHDFG)." No public funding will be used for this project.

4. As stated on page 43 of the EIS SLP is outside of the tsunami flood area and the 100-year flood boundary with much less than 0.5% chance of being flooded in any given year.

5. As stated in the EIS on page 48, Mark Charbonneau, Landscape Department Supervisor of SLP provided data on vegetation. Information on birds was provided by Edward Shallenberger, PhD., Vice President, Sea Life Park, Incorporated.

6. There has been a typographical error in the first sentence of page 64. It should read, "Although the employment of 20 additional people in the Park will not have a significant impact on unemployment for Oahu, operation of SLP has a significant impact by and on the visitor industry which is critical to the economic welfare of Oahu."

7. A list of some of the necessary approvals may be found on page 86 of the EIS. In addition to that list, a construction permit is required from the State DOT for laying the salt-water lines under Kalanianaole Highway. City and County of Honolulu Department of Parks and Recreation must also approve the plan, since salt-water lines will be laid through Makapuu Beach Park.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: DLU

March 23, 1981

Mr. Harry Y. Akagi
Acting Director
State of Hawaii
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Akagi:

Re: EIS for the Proposed Expansion of Sea Life Park

The following information will clarify some of our responses in our letter of March 10, 1981:

Item 4

Attached is a copy of page 43 with flood zones more clearly delineated. Zone A4 is an area of 100-flood (flood elevations shown). Zone V25 and V30 are coastal high hazard areas that are subject to high velocity waters, including but not limited to hurricane wave wash or tsunamis. SLP is in Zone D, an area of undetermined but possible flood hazards. For your information, we are attaching copies of an amended page 42 which defines the flood zones and comments made by U. S. Army Corps of Engineers upon review of the draft EIS.

Item 5

Mark Charbonneau, Landscape Department Supervisor for SLP, surveyed SLP three times to count the number of beach sandalwood trees. One survey was done with Carolyn Corn, botanist DLNR. Although the count was deemed to be accurate, an error in the original mapping of the location of the trees was found and the map on page 49 of the Draft EIS has been amended (a copy of amended map is enclosed).

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

Item 7

Attached is a copy of page 86 which is amended to include the following status report:

"The Special Management Area Use Permit is a prerequisite for other permits, in that denial of Special Management Area Use Permit obviates the need for other permits; therefore application for other permits is not expected until Special Management Area Use Permit is granted."

Sincerely,

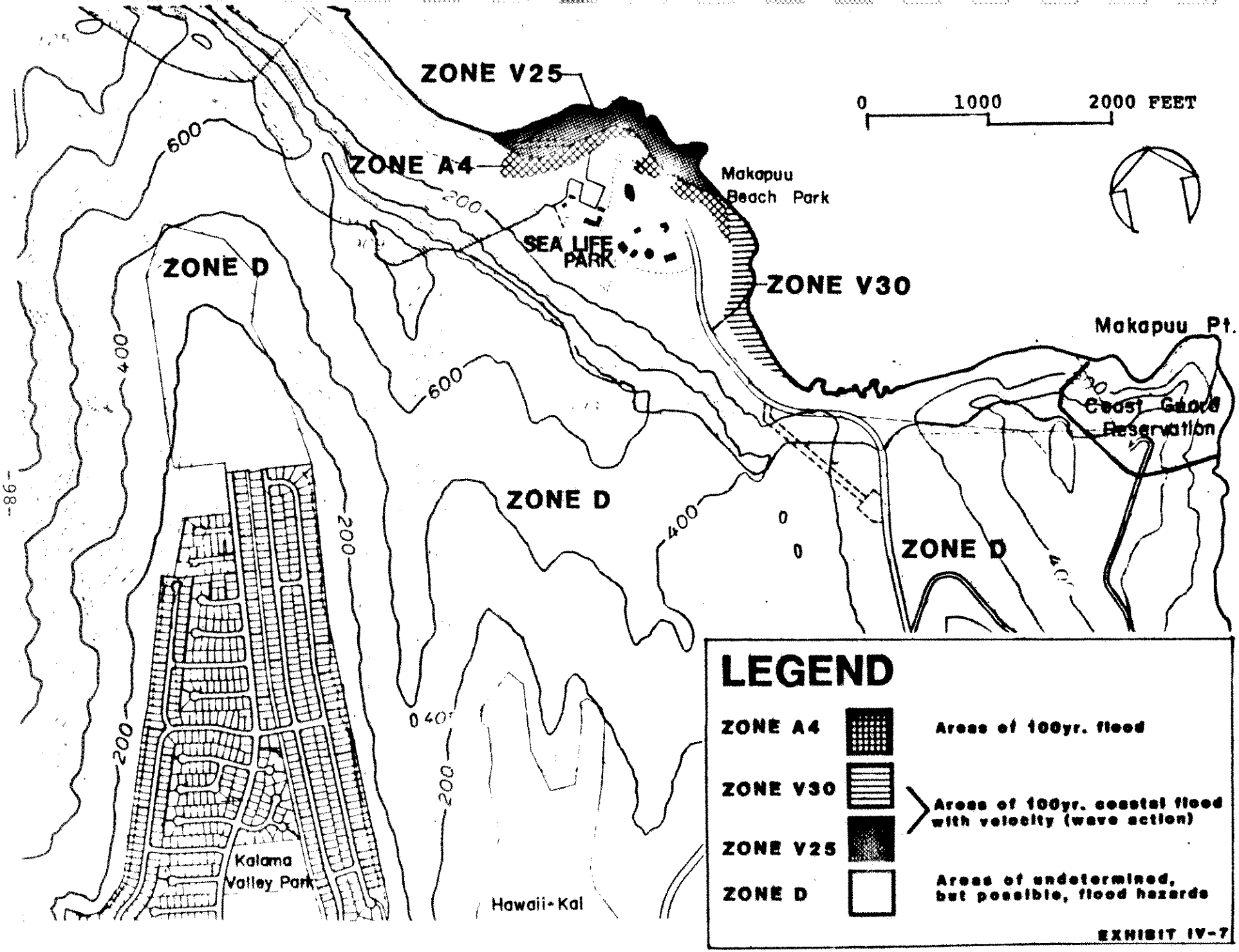
EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

Attachments

cc: DLU w/enclosures



FLOOD INSURANCE RATE MAP

A further requirement of Ordinance 4529 is to avoid adverse impacts. In that regard, the SLP proposal would not affect any water area, would not reduce the size of any beach nor the size of any recreation area. Access to tidal lands, beaches, rivers, and streams would not be affected. The line of sight to the sea from the highway would be unaffected and water quality, open water areas and estuarine sanctuaries, would be completely unaffected.

SLP is located mauka of Kalanianaole Highway and would have no effect on access to Makapuu or Kaupo.

F. Federal Flood Insurance Program

The United States Department of Housing and Urban Development, Federal Insurance Administration has established potential riverine and tsunami flood areas for the island of Oahu. Since SLP is completely removed from any potential flooding, the insurance program is not an issue for SLP or its proposed expansion. Potential flood areas are primarily along the beachline across Kalanianaole Highway and at the far end of the Oceanic Institute. (See Exhibit IV-7)

In the Federal Insurance Administration mapping and coding system, zones A1 to A30 designate areas of 100-year flood. Zones V1 to V30 designate areas of 100-year coastal flood with velocity (wave action), including but not limited to hurricane wave wash or tsunamis. "V" zones are also known as "coastal high hazard areas." In the coding system, the numbers following the letters of the alphabet determine flood insurance rates, with high numbers commanding higher insurance rates.

SLP is in Zone D - which carries a remote possibility, but still undetermined flood hazard. That is, there is a 1% chance of Zone A lands being flooded in any given year, 0.5% of Zone B lands being flooded in any given year, less for Zone C, and considerably less chance of flooding in Zone D, which includes SLP. Therefore, the conclusion reached is that flooding by riverine or tsunami causes is so remote a possibility for SLP that it was removed as a concern from this EIS.

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858

PODED-PV

12 February 1981

Mr. Michael McElroy
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

RECEIVED
FEB 19 1981
EDAW Inc.

Dear Mr. McElroy:

Thank you for the opportunity to review the Draft Environmental Impact Statement (DEIS) for Sea Life Park. We provide the following comments:

a. No Department of the Army permit is required for the project.

b. Pages 42 and 43 of the DEIS. Based on the Flood Insurance Study for the island of Oahu, the project site is situated in an area of undetermined but possible flood hazards, designated Zone 1.*

A copy of our reply was sent to the proposing party:

Sea Life Park Incorporated (c/o EDAW Inc)
1136 Union Mall, Suite 201
Honolulu, HI 96813

Sincerely,

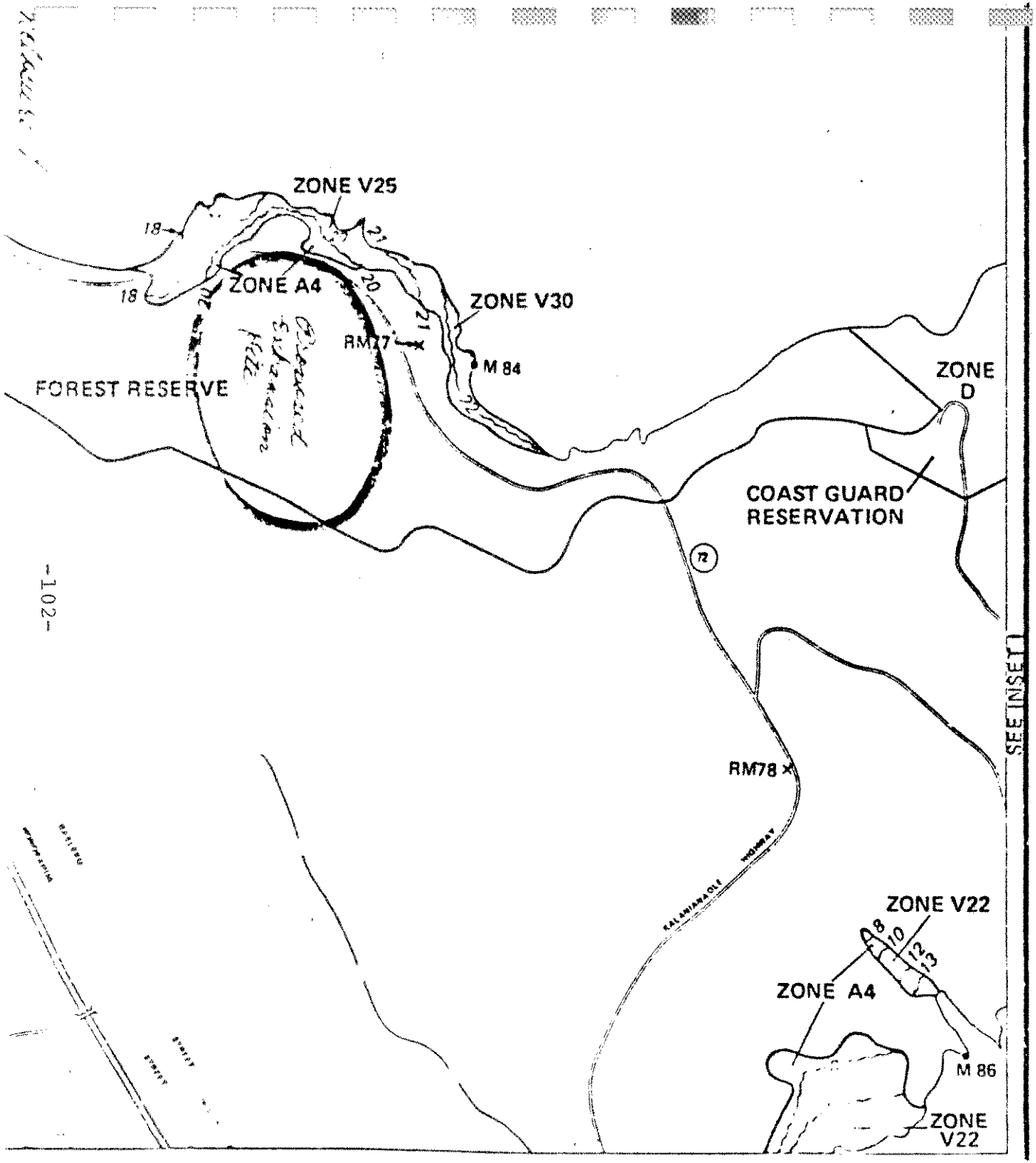
/s/
KISUK CHEUNG
Chief, Engineering Division

1 Incl
As stated

*This is a typographical error and should read as "Zone D". (Per telephone conversation with Mr. Fred Adaniya, Hydrolic Engineer, U. S. Army Corps of Engineers, 3/17/81.)

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30*	Areas of 100-year flood, base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30*	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.
*	The numerals indicate the magnitude of difference between the 100-year and 10-year flood elevations. For numerals between 1-20, the difference is one half of the value; for values greater than 20, the difference is 10 less than the numerals shown. This information is used in establishing insurance rates.
——18——	100-year tsunami or riverine elevation line, with elevation in feet above mean sea level.
————	Zone boundary line



NATIONAL FLOOD INSURANCE PROGR

FIRM

FLOOD INSURANCE RATE MA

CITY AND COUNTY OF
HONOLULU, HAWAII

PANEL 95 OF 135
(SEE MAP INDEX FOR PANELS NOT PRINTE

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SEPTEMBER 3, 19

U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRA

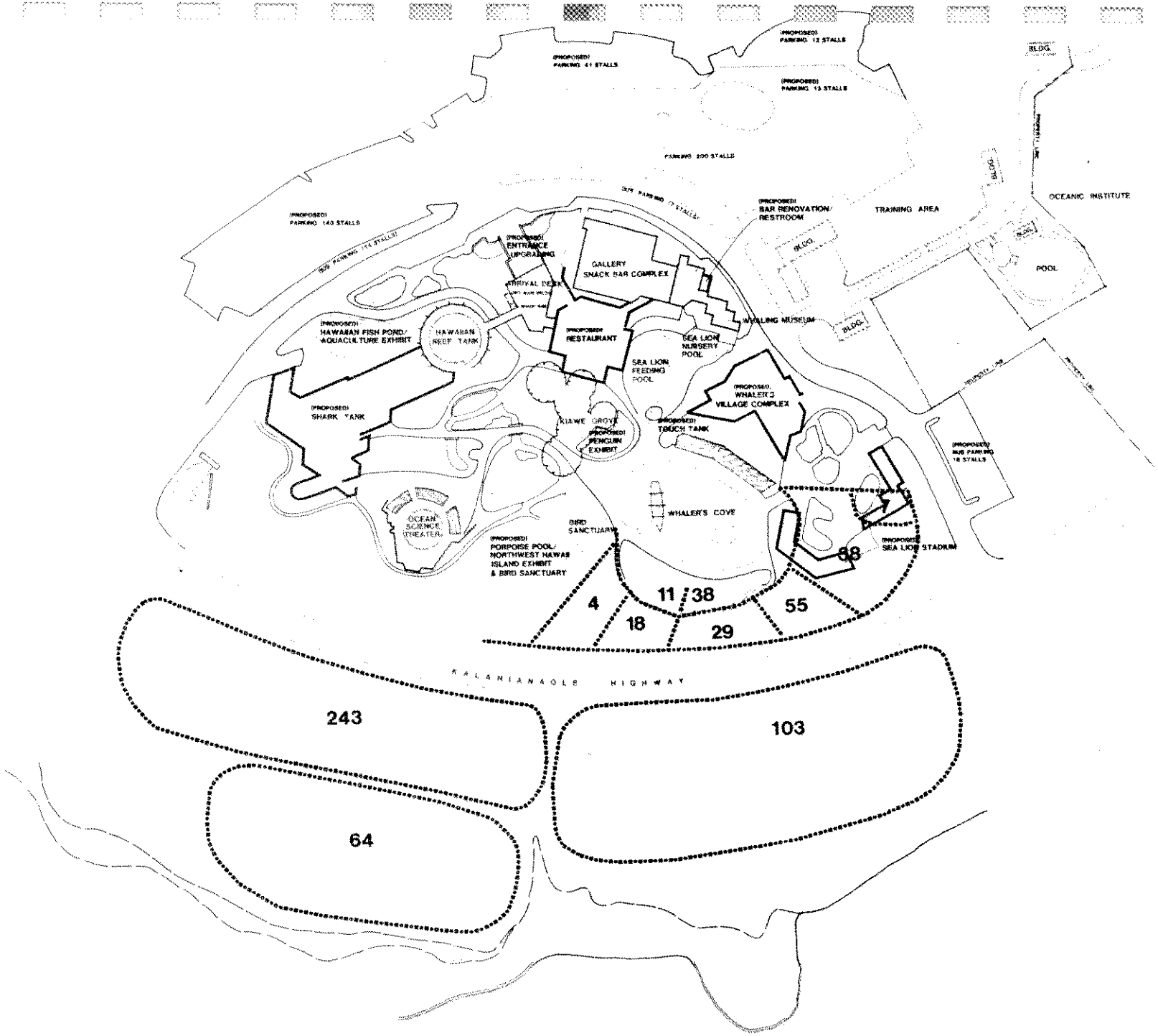


EXHIBIT V-2

BEACH SANDALWOOD GROWTH AREA

XIV. LIST OF NECESSARY PERMITS

Display Permit (U. S. Department of Agriculture)

Fish Collecting Permits (State Department of Land and Natural Resources, Division of Fish and Game)

Wastewater Discharge Permit (State Department of Health)

Construction Permit for laying Saltwater Lines under Kalanianaole Highway (State Department of Transportation)

Marine Mammal Permit (National Marine Fisheries Service)

Endangered Species Permit (National Marine Fisheries Service)

Migratory Bird Permit (U. S. Fish and Wildlife Service)

Special Management Area Use Permit (City and County of Honolulu, Department of Land Utilization)

Plan Approval for Saltwater Lines in Park land (City and County of Honolulu, Department of Parks and Recreation)

Grading Permit (City and County of Honolulu, Department of Public Works)

Building Permit (City and County of Honolulu, Building Department)

Conservation District Use Application for Sewage Treatment Plant (State Department of Land and Natural Resources)

Status: The Special Management Area Use Permit is a prerequisite for other permits, in that denial of Special Management Area Use Permit obviates the need for other permits; therefore application for other permits is not expected until Special Management Area Use Permit is granted.

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

SUSUMU ONO, CHAIRMAN
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMAGE
DEPUTY TO THE CHAIRMAN

DIVISIONS:
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

March 6, 1981

REF. NO.: CPO-2681

Mr. Michael M. McElroy
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

RECEIVED
MAR 16 1981
EDAW Inc.

Dear Mr. McElroy:

We have reviewed the draft EIS for Sea Life Park and have the following to offer:

1. The flora portion of this draft EIS is inaccurate and incomplete leading the reader to believe that the beach sandalwood can be relocated and replanted successfully as a mitigation measure. This is not true. Upon our visit to the site on February 10, 1981, we found that the map on page 49 showing the location of the plants is inaccurate. The 2 or 3 beach sandalwoods (Santalum ellipitum var. littorale) that were transplanted died, whereas page 48 states that "Experimental relocation of a few beach sandalwood has been successful ..." On page 48 it also states that this plant is quite rare but not considered endangered. This plant is listed as under review for threatened and endangered status by the U.S. Fish and Wildlife Service (Federal Register, dated December 15, 1980). It is currently receiving a priority status for listing by the U.S. Fish and Wildlife Service.

   No background information is given about this plant and its habitat. Plants within the fenced portion of Sea Life Park and the adjoining lands makai of Kalanianaole Highway happen to be the last known sizable colony of beach of sandalwood on Oahu. Although individual plants are found scattered along rock coastlines in salt spray habitats, the Makapuu site is the best remnant population. Habitat destruction and modification continues to be the prime reason for its demise.

   Present Sea Life Park plans to modify its habitat need to be revised. The sea lion stadium, 16" saltwater pipeline, and whaling village complex are all shown as proposed modifications to this sandalwood habitat (page 49). The draft EIS says that the sandalwood will be

transplanted to other areas, yet we have not seen a successful transplant of this variety from its natural habitat. Due to the genus' reputed semi-parasitic manner of growth and the limited number of this variety at Makapuu, no further transplants should be attempted.

The non-developed area where the sandalwood is growing should be left as a Hawaiian nature trail and garden (or plant sanctuary) as it currently is being maintained. All proposed structures and soil disturbance, including the sea lion exhibit, stadium and proposed 16" saltwater line should be located beyond the area where these plants occur.

If Sea Life Park wants to propagate additional coastal sandalwood plants, seed from plants within the Sea Life Park fence areas could be grown, collected and planted. However, the seedlings need to be grown at least 3 years in their new site to prove their success.

Our Historic Sites Office has reviewed the draft EIS and concurs with its findings: the proposed undertaking will have no impact on historic sites. We also concur with the plans to maintain consultation with our archaeologist as the undertaking proceeds (p. 61).

In the event that any unanticipated sites or remains such as artifacts, shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered, the developer should stop work and contact this office (548-7460) immediately.

Page 3, II.B. Historic Perspective. 2nd paragraph, next to last sentence states "Makai Range, Inc. is no longer in existence and the pier and buildings are operated by the State of Hawaii." The second half of this sentence is NOT CORRECT. The pier facility belongs to Pierco, Inc. who leases the site from the State of Hawaii under General Lease No. S-4407. The Research Corporation of the University of Hawaii manages the pier facility under contract with Pierco, Inc.

In accordance with General Lease No. 3709 (Master Lease to Oceanic Foundation), construction plans for the proposed new facilities are subject to prior approval of the Director (Chairman) as to aesthetics but not as to utility.

The draft Sea Life Park EIS appears to adequately address our concerns for safeguarding the marine environment, as along as all Governmental rules and regulations are complied with governing construction of the proposed sewage treatement plant (STP) and injection wells. With regards to STP, further information needs to be documented as to how and where the effluent will be disposed.

It is noted that corrections should be made concerning the references to "Koko Head Natural Park" (p. 22) and "Koko Head National Park" (Exhibit III-1, p. 23) of the DEIS, since such designations are not official at this time (personal communication with the National Park Honolulu Office and the Parks and Recreation Department of the City and County of Honolulu).

Inasmuch as this lease was issued prior to the 1964 effective date of Departmental Regulation No. 4, no Conservation District Use Application is now required for the use providing that the proposed use(s) are consistent with that provided for and/or required in the original lease. As such, your agency will be the accepting authority for the EIS as provided for under Chpater 343, HRS which was clarified by legal memorandum dated April 9, 1980 (attached).

Thank you for allowing us the opportunity to comment on this matter. Should you have any questions, please feel free to contact Mr. Roger C. Evans of my staff at 548-7837.

Very truly yours,

SUSUMU ONO, Chairman
Board of Land and Natural Resources

Att.

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF THE ATTORNEY GENERAL
STATE CAPITOL
HONOLULU, HAWAII 96813
(808) 548-4740

WAYNE MINAMI
Deputy Attorney General
LARRY L. ZINKER
Deputy Attorney General

April 9, 1980

LEGAL MEMORANDUM

TO: Mr. Richard L. O'Connell
Director, OEQC

FROM: Laurence K. Lau
Deputy Attorney General

SUBJECT: HRS Chapter 343, Request by a person for permission to use state lands other than conservation district land

By notes dated January 25, 1979 and February 2, 1979 you requested our advice on the applicability of HRS Chapter 343 to a state agency's approval of a request by a person for permission to use state lands (whether by lease, license or permit) which are classified by the state land use commission other than as conservation district lands. Specifically, you asked the following questions:

a. Is the person requesting permission an applicant as defined in HRS Section 343-1(4)?

b. If the answer to "a" is yes, does either HRS Section 343-4(b) or (c) apply?

c. If the answer to "a" is no, is the proposed grant of an easement, license or permit by a state agency to a person for the use of state lands a proposal "to implement an action proposing the use of state land" as that phrase is used in section 343-4(b), taking into consideration the definition of "action" in HRS section 343-1(2)?

d. Does HRS Chapter 343 apply to this action? If so, how?

I have consolidated and rephrased the questions as follows:

ISSUE:

Does HRS Chapter 343 apply to a state agency's approval of a person's request to use (whether by lease, license, or permit) state lands which are not conservation district land as classified by the state Land Use Commission, and if so, how?

ANSWERS:

Since June 8, 1979, yes. HRS § 343-5(a)(Supp. 1979) (amending HRS § 343-4(a)) covers actions proposing the use of state land. If an agency proposes the use of state land, HRS § 343-5(b)(Supp. 1979) applies; if an applicant proposes an action, HRS § 343-5(c)(Supp. 1979) applies.

Regarding the law before June 8, 1979, we decline to answer now because the issue is in litigation and the State is a party, Palolo Community Council v. Hawaiian Electric et. al., 1st Cir. Civ. No. 57887; and Brown v. Hawaiian Electric, et al., 1st Cir. Civ. No. 58014. Our policy is not to issue written advice in these circumstances, because a dispositive ruling of a court is forthcoming.

DISCUSSION:

The law since June 8, 1979. HRS § 343-5(a) (Supp. 1979) now requires an environmental assessment (EA) for actions within any of the six categories listed as subsections of HRS § 343-5(a)(Supp. 1979). HRS § 343-5(a)(1) requires an assessment of any action proposing any use of state land. EIS Regulation 1:21(b) specifies that the use of state lands includes any use (title, lease, permit, easement, licenses, etc.) or entitlement to said lands."

Whether an agency or an applicant proposes an action covered by HRS § 343-5(a)(Supp. 1979) both HRS § 343-5(b) and (c)(Supp. 1979) require an agency to prepare an EA. HRS § 343-5(b)(Supp. 1979) requires the proposing agency to environmentally assess an action it proposes and HRS § 343-5(c) requires the agency receiving the approval request to assess an applicant's proposed action.

If the EA reveals that the proposed action may have a significant effect on the environment an environmental impact statement (EIS) shall be prepared.

I assume that the action is not exempt pursuant to HRS § 343-6(b)(Supp. 1979).

Laurence K. Lau

LAURENCE K. LAU
Deputy Attorney General

LKL:ejk
Attach.

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4411

EILEEN R. ANDERSON
MAYOR

MICHAEL M. McELROY
DIRECTOR

79/SMA-18(MK)
LU3/81-1444

March 23, 1981

RECEIVED
MAR 24 1981
EDAW Inc.

Mr. Susumu Ono, Chairman
Board of Land and Natural
Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Ono:

Draft Environmental Impact Statement (EIS)
Sea Life Park

Thank you for your letter of March 6, 1981 (Ref. No. CPO-2681) regarding the Draft EIS for Sea Life Park. Unfortunately, your comments were received after the February 22, 1981 review deadline, thereby allowing the applicant the option not to respond to or incorporate your comments in the Revised EIS. The consultant, EDAW, inc., has requested approval to extend the response deadline 30 days, so you may receive a response to your late comments. We have forwarded a copy of your letter to the consultant and suggested that the concerns you raised be addressed before an application for a Special Management Area Use Permit (SMP) is submitted.

In your letter, you mentioned that a Conservation District Use Application (CDUA) is not required as long as the applicant proposes uses that are consistent with those approved when the lease was issued prior to 1964, the year Departmental Regulation No. 4 went into effect. You do not indicate in your response, however, whether the proposed expansion is consistent with the provisions of this lease. Will the applicant have to apply for a CDUA before you review the lease for consistency, or are we to assume that the provisions of the lease have been met and a CDUA is not necessary? This information should be clarified in the Revised EIS.

As you know, we have been reviewing this project under the provisions of Chapter 343, HRS, since Sea Life Park is located within the Conservation District and on State owned land. Lately, questions have been raised regarding the authority of a City agency to make decisions on the environmental assessment of projects located within the Conservation District and on State lands. We consulted with your agency and you acknowledged that DLU "will be the accepting authority for the EIS as provided for under Chapter 343, HRS."

We feel this decision is appropriate under Chapter 343-5 (c) and Section 1:24 of the Environmental Quality Commission's (EQC) Regulations.

In similar proposals involving State permits and County permits, we will follow Section 1:24 of the EQC Regulations. We shall continue to consult with the State agency having jurisdiction over the proposal during the assessment period so that there is agreement between agencies regarding the adequacy of the assessment.

Should you have any questions regarding this matter, please contact Mrs. Lorrie Chee of our staff at 523-4077.

Very truly yours,

MICHAEL M. McELROY
Director of Land Utilization

MMM:sl

cc: EDAW
OEQC

April 3, 1981

Mr. Susumu Ono
Chairman
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96821

Dear Mr. Ono:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following response to your March 6, 1981 letter to Mr. Michael McElroy of the Department of Land Utilization:

1. We did find errors on pages 48 and 49 of the Draft EIS regarding beach sandalwood. Enclosed are copies of amended pages that are renumbered pages 50 and 51 in the final EIS.

2. Page 3, II.B. was also amended per your information (see page 3 enclosed).

3. More information has been provided in the EIS on the proposed STP (see pages 21 and 22 attached).

4. Pages 22 and 23 of the Draft EIS were also corrected regarding Koko Head Park. The pages have been renumbered 24 and 25 and are attached.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

Enclosures

cc: OEQC w/enclosures
DLU w/enclosures
SLP w/enclosures

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

Indefinite commitment of the land to the proposed structures is acceptable given the minor amounts of land involved and the uses to which they will be put. The entire SLP is within the usable 21.5 acres and the proposed actions would be a contiguous extension of the existing exhibits in the direction of the highway.

Flora

Kiawe and haole koa are the predominant vegetation outside the landscape Park exhibit area. In order to extend the parking lot and build the Hawaiian fishpond/aquaculture exhibit, some Kiawe trees will be removed.

Beach sandalwood (Sandalum elipticum littorales)* presently grows in the area (Exhibit V-2), but proposed construction will occur in areas of sparse sandalwood growth. The Sea Lion Stadium will be designed and situated to avoid disturbing existing beach sandalwood trees.

*Beach sandalwood is under review for threatened and endangered status by the U. S. Fish and Wildlife Service.

Mark Charbonneau, Landscape Department Supervisor of SLP has been responsible for the major efforts involved in the re-establishment of beach sandalwood. Previous to Mr. Charbonneau's efforts, introduced shrubs such as haole koa, lantana, etc. were smothering many established plants and preventing the seeding of new plants. The area concerned is now nearly free of all pest plants with continuous care for removing weeds, watering and helping along of newly seeded plants. The number of plants has increased greatly as has the health of each of them.

Also as a note of interest, in August 1980, Mr. Charbonneau noted about 300 beach sandalwoods across the highway on Makapuu Beach Park. In December 1980, Mr. Charbonneau counted over 400 plants as indicated on Exhibit V-2. Many plants on the beach side are much larger than those found at SLP, some being 5-ft. tall with lateral spreads of 12-ft. or more. Groundkeepers at the park, are very aware of the beach sandalwood, according to the conversation Mr. Charbonneau had with a groundkeeper.

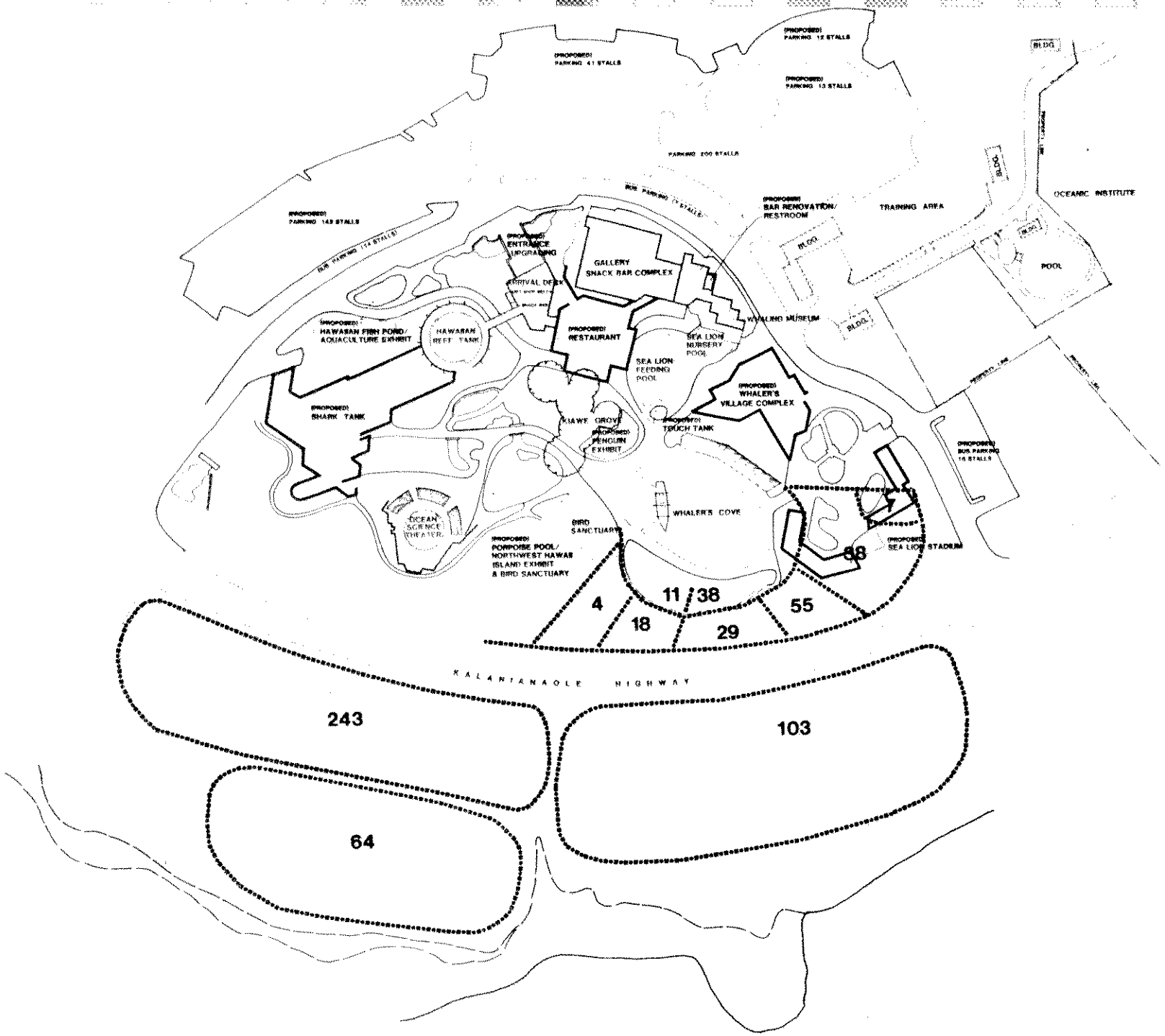


EXHIBIT V-2

BEACH SANDALWOOD GROWTH AREA

II. PROJECT DESCRIPTION

A. Project Location

Proposed actions will be included within the existing Sea Life Park at the easternmost point of the Ko'olau chain of mountains at the foot of a cliff 1,000 feet high. This is located 1.8 miles from Waimanalo Town and 3.9 miles from Hawaii Kai (see Exhibit II-1 Location Map).

B. Historic Perspective

Sea Life Inc. (SLI) was originally incorporated in 1962 as a for-profit corporation doing business as an Oceanarium by Makai Corporation along with its sister Corporations - the Oceanic Foundation, Makai Undersea Test Range, Royal Hawaiian Air Service, Hotel Hana Ranch, and the Lahaina Kaanapali Railroad. In 1972, Makai Corporation was discontinued, and, after reorganization, a major portion of SLI stock was purchased by Lion Country Safari and Bishop Corporation. Subsequently, Bishop purchased Lion Country's holding and presently owns 100% of SLI stock.

Oceanic Foundation holds the master lease on 118 acres from the State of Hawaii and subleases 61.662 acres to SLI of which 21.5 acres are usable. The remainder of the land is steep and extends up to the mountain ridge behind Makapuu Point Beach Park. SLI and Oceanic Foundation share some facilities, such as a saltwater line, roads, parking, etc. Makai Range Inc. is no longer in existence and the pier and buildings belong to Pierco, Inc. who lease the site from the State of Hawaii. The Research Corporation of the University of Hawaii manages the pier facility under contract with Pierco, Inc. Space at the pier is leased by SLI for its collecting vessel.

The Board of Land and Natural Resources created a conservation subzone at Kaupo by adopting a resolution to permit "recreational, educational and commercial uses" on August 10, 1962. The action, taken in preparation for the lease sale, stated that the proposed development was to be a sea life park, similar in nature to an oceanarium. The lease includes necessary pipeline and pump site easements for sea water utilization.

While the design and time schedule for construction of the Sewage Treatment Plant (STP) is five (5) years away (see "Phasing of the Proposed Project" on page 23), the current plan for the STP is treatment through extended aeration tank which involves separating liquids from solids, disposing of liquids through injection wells and hauling solids to a landfill after drying. The proposed STP will have to meet Public Health Regulations, Chapter 38, HRS which specify such things as minimum distance requirements to prevent nuisances (Sec. 4.2.E.), recommended standards for sewage works (Sec. 4.3.B.), inspection of facility by the Department of Health Director before approval of the facility (Sec. 4.2.H.1.), maximum amounts of biochemical oxygen demand and suspended solids permissible in effluent (Sec. 5.) and requirement for certified operator (Sec. 4.2.). The STP will be reviewed again during the Conservation District Use Application process.*

Initial evaluation of the suitability of the area for wastewater disposal appears favorable. According to Board of Water Supply (BWS) studies, SLP is in the "pass zone," which rates the area as suitable for waste disposal involving a depth of 30 feet or less, which is why the current cesspool was approved. BWS hydrologists anticipate no problems with injection wells of up to 200 feet on the property since the supply of groundwater in the area is virtually nil. As a comparison, all three dispersion wells in SLP currently function without any problems. The wells, situated on the Waimanalo side of SLP, were dug 15 years ago and handle approximately 1,440,000 gallons per day. Although 3 wells were redrilled from a depth of 100 feet to a depth of 180 feet, only two wells required the redrilling to improve percolation. Two other wells, one handling 2,584,000 gallons per day and the other 1,000,000 gallons per day, on Oceanic Institute property, have had no problems since they were dug 13 years ago. They are both 100 feet deep.

*Because all other proposed facilities are consistent with the original lease and have been previously approved in the 1977 master plan for SLP, they do not require a Conservation District Use Application.

Location and depth of wastewater injection wells will ultimately be determined by percolation tests. These tests will also determine the point of effluent discharge offshore by tracing dyes injected into test wells.

Theoretically there should be no affect on the saltwater intake system and the Class AA coastal waters. Wastewater will be injected at a relatively great depth below sea level, whereas saltwater intake will occur near the surface. However, water quality in the intake system will be monitored, as is done currently. Any concentration of nutrients in the wastewater effluent should be dispersed and diluted sufficiently upon reaching the ocean. Wave action will further dilute any effluent.

If upon conducting percolation tests, results indicate adverse affects on Class AA coastal waters or the saltwater intake system, SLP will be obliged to consider modification of well depth or an alternate method of sewage disposal to meet Chapter 38 requirements. If the proposed STP is deemed appropriate, SLP will retain a certified operator to insure proper operation and maintenance. The proposed STP would incorporate the most current terminology in its design and stress proper maintenance to prevent unpleasant odors.

E. Use of Public Funds or Lands for the Action

SLP leases 61.662 acres of land from the Oceanic Foundation which holds the master lease on 118 acres from the State of Hawaii. All the proposed actions will be located within 21.5 acres of the 61.662 acres.

No public funds will be used to develop the proposed action.

III. DESCRIPTION OF ENVIRONMENTAL SETTING

A. Surroundings

The heavy concentration of recreational uses on the coastal approach to SLP includes the proposed Koko Head Natural Park with Koko Head and Koko Crater on either side of Hanauma Bay, Halona Point, (Blow Hole), Koko Head Rifle Range, Koko Crater Stable, Hawaii Kai Golf Course, and several excellent beaches and fishing areas (see Exhibit III-1). Makapuu and the numerous beaches in the Waimanalo direction combine to make this area a prime recreational area for residents as well as a unique tourist attraction.

Public facilities located in the area include a sewage disposal plant, Coast Guard Station, and light house (see Exhibit II-1, Location Map).

There are no residential areas in the immediate vicinity of SLP, but the traveler reaches a residential neighborhood 1 mile from the Park entrance. Homes cluster on either side of Kalanianaole Highway until the valley widens and expands to include Waimanalo Beach Park, a few small stores and restaurants, gasoline station and agricultural uses in the valley.

Commercial services are quite limited in the vicinity of the Park. Between Hawaii Kai Shopping Center and Kailua there are no sit down restaurants and few retail shops.

Bird refuges are located on Manana (Rabbit) and Kaohikaipu (Black Rock) Islands 1,400 and 800 yards offshore where as many as 250,000 birds nest.

Overall, SLP's setting is ideal for its purposes. The scenery is exceptional and is the perfect backdrop for an educational and recreational facility to attract repeat visitors from Hawaii's residents as well as the first time visitor to the Island and other tourists.

The sea water off SLP is in the AA Water Quality Classification which is an important factor in maintaining the healthy sea animals that live in the Park. The water for their tanks is pumped from the shore immediately makai of the Park. It is the objective of the AA class that these waters remain in their natural state as nearly as possible with

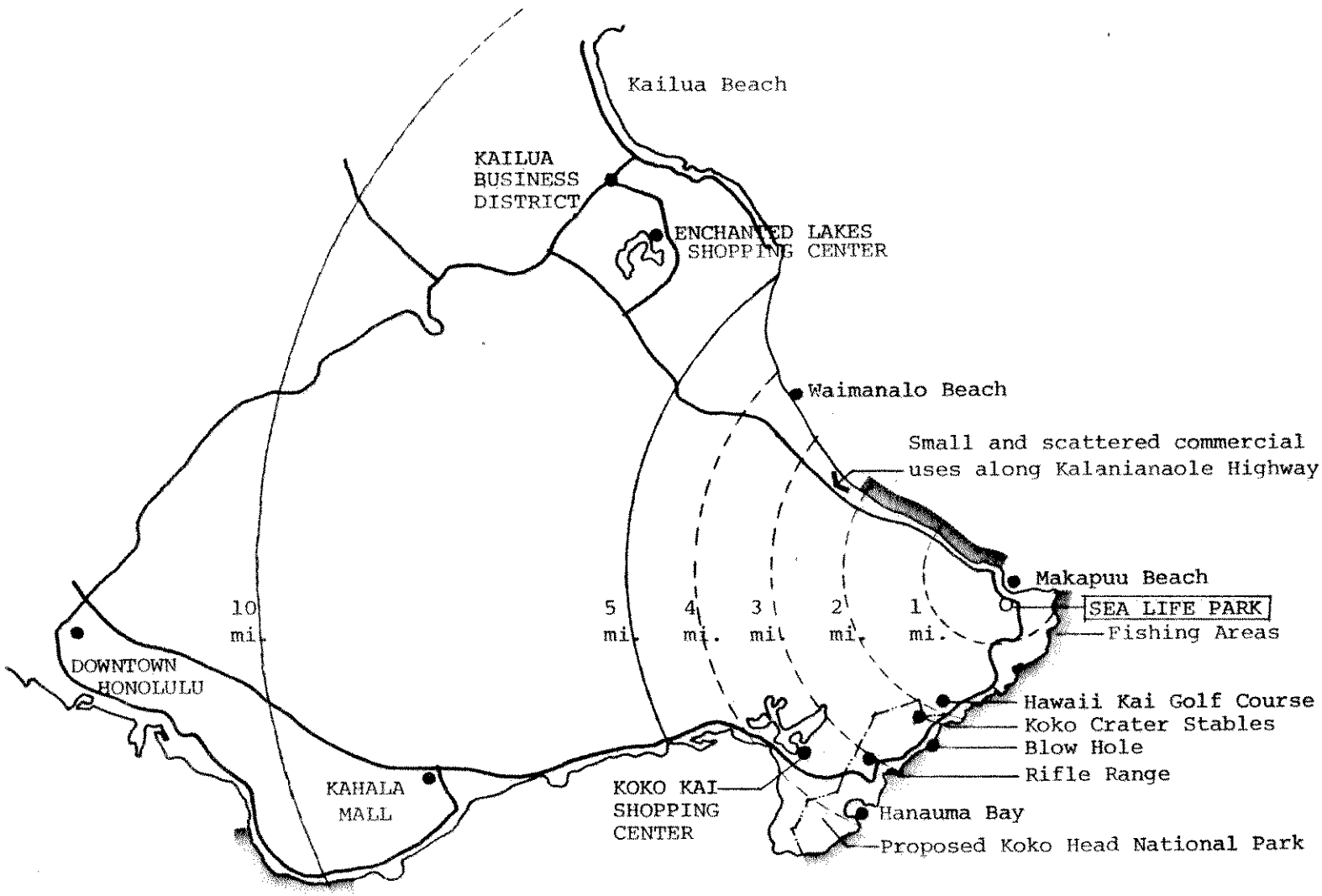


EXHIBIT III-1

SURROUNDING RECREATIONAL USES

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

GEORGE A. L. YUEN
DIRECTOR OF HEALTH

VERNE C. WAITE, M.D.
DEPUTY DIRECTOR OF HEALTH

HENRY N. THOMPSON, M.A.
DEPUTY DIRECTOR OF HEALTH

~~JAMES S. KUMAGAI, PH.D., P.E.~~
DEPUTY DIRECTOR OF HEALTH

~~TADAO BEPPU~~
DEPUTY DIRECTOR OF HEALTH

February 9, 1981

MEMORANDUM

To: Mr. Michael M. McElroy, Director of Land Utilization
City & County of Honolulu

In reply, please refer to:
File: EPHS-SS

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement (EIS) for Proposed Expansion of the Sea Life Park, Makapuu, Oahu

Thank you for allowing us to review and comment on the subject EIS. We submit the following comments for your information and consideration:

1. The proposed project must be designed to comply with the provisions of Public Health Regulations, Chapter 44B, Community Noise Control for Oahu. Noise from equipment such as air conditioning/ventilation units, water pumps, generators, and exhaust units must be attenuated to meet the allowable noise levels from the regulations based on zoning districts.

2. Precautions should be taken to ensure that noise from shows at the proposed facility do not exceed allowable noise levels. The use of landscape screening/ buffering plans and care in loudspeaker placement can minimize this problem.

3. Construction activities must comply with the provisions of Public Health Regulations, Chapter 44B, Community Noise Control for Oahu:

   a. The contractor must obtain a noise permit if the noise levels are expected to exceed the allowable levels of the regulations.

   b. Construction equipment and on-site vehicles or devices requiring an exhaust of gas or air must be equipped with mufflers.

   c. The contractor must comply with the conditional use of the permit as specified in the regulations and with the conditions issued with the permit.

4. Traffic noise from heavy vehicles travelling to and from the construction site must be minimized in residential areas and must comply with the provisions of Public Health Regulations, Chapter 44A, Vehicular Noise Control for Oahu.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

For Brian J. J. Choy
MELVIN K. KOIZUMI

cc: OEQC
Sea Life Park, Inc. ✓

March 10, 1981

Mr. Melvin Koizumi
Department of Health
State of Hawaii
1250 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Koizumi:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo of February 9, 1981 to Mr. Michael McElroy of the Department of Land Utilization:

1. SLP will comply with provisions of Public Health Regulations, Chapter 44B, Community Noise Control for Oahu.

2. SLP intends, as you have suggested, to properly landscape the proposed improvements to control audio and visual impacts. Loudspeakers will be placed in locations to minimize noise problems.

3. Construction activities will comply with provisions of Public Health Regulations, Chapter 44B, Noise Control for Oahu.

4. During the construction period heavy vehicle travel through residential areas will be minimized and provisions of Public Health Regulations, Chapter 44A, Vehicular Noise Control for Oahu will be complied with.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: DLU
OEQC

University of Hawaii at Manoa

Environmental Center
Crawford 317 • 2550 Campus Road
Honolulu, Hawaii 96822
Telephone (808) 948-7361

Office of the Director

February 23, 1981
RE:0324

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Sir:

Review of
Draft Environmental Impact Statement
Proposed Expansion of the Sea Life Park
Makapuu, Oahu

The Environmental Center review of the above EIS has been conducted with the assistance of Hank Banner, Zoology; Edward Laws, Oceanography; Jacquelin Miller and Alexis Cheong Linder, Environmental Center.

Salt Water Handling Facilities

We note on Exhibit II-9 that the proposed sewage treatment plant and injection wells are just mauka of the proposed 16" saltwater line. Is it likely that seepage from the sewage injection wells will produce elevated nutrient loads in the coastal waters and contaminate the salt water intake lines? Has this possible contamination of the salt water intake by excessive nutrient load or bacterial or viral sources been considered and if not it should be addressed in the final EIS.

Sewage Treatment Plant

Although a sewage treatment plant is also part of the proposed project there is little information in the document to permit assessment of potential impacts (p. 20). Issues which need to be addressed include design, visual impacts, level of operation (type of treatment), disposal of effluent and solid wastes and implementation date. Possible alternatives to the sewage treatment plant should also be explored (p. 68). It is noted that one alternative to injection or dispersion wells to handle disposal of animal effluent is to discharge waste water into Class AA waters off Makapuu (p. 51). If this type of action is being considered then considerably more information must be provided to permit adequate evaluation of the potential impacts on nearshore water quality.

Because Makapuu enjoys a favorable exposure to the tradewinds, location of the sewage treatment plant makai of the Park may result in the wafting of odors associated with sewage treatment into the park area; needless to say this bears the potential of

decreasing visitor satisfaction. Has this potential problem been considered in the design of the treatment facility?

Potable Water

Due to the increasing demand for potable water on the island of Oahu for both urban and commercial use and the apparent depletion of basal water supplies we are concerned that the Board of Water Supply be notified of your potable water requirements. Has this been accomplished?

Employment

Sea Life Park is a unique commercial marine park that offers a training program for young adults and youth in conjunction with a non-profit organization such as Alu Like. Are provisions made to place trainees in positions once training is completed? How many participants are successfully placed? Since the new administration has drastically reduced funds for CETA workers, will this affect the employment and training program at Sea Life Park (particularly with reference to objective E, p. 32)? What percentage of employees are CETA funded? Naturally, this recent budget-cut could not be addressed in the draft EIS. However, this issue should be reassessed in terms of the new economic constraints.

Visual Impacts

The visual impacts should address the design issue of the Sea Lion Theater and the sewage treatment plant (p. 56). Both structures will be immediately adjacent to Kalanianaole Highway and should be designed to enhance the environmental setting of both the park area proper as well as the Makapuu site. Have design and landscaping plans been formulated for both facilities?

Traffic

Weekend traffic counts should be taken as part of the traffic impact analysis. Weekend traffic is signficantly increased by resident and visitor sources alike. Weekday counts do not reflect this increase in levels of usage.

It seems inappropriate to assume that beach park attendance will remain level since no parking expansion is planned at either site (Sandy Beach or Makapuu Beach) (p. 59). Increasing population demands particularly in the Hawaii Kai and Queen's Beach area may well be reflected in larger numbers of people at beach parks. With the existing beach bus service a lack of parking spaces may not be a deterrent to determined beach goers.

From the social impacts-traffic safety standpoint we would strongly urge that the traffic analysis take into consideration and address the existing and increasing traffic hazards associated with vehicle and pedestrian entrance and exit traffic from Sea Life Park.

Thank you for the opportunity to review this document. We look forward to receiving your response.

Sincerely,

Diane C. Drigot

Diane C. Drigot, Ph.D.
Acting Director

LMK

cc: Sea Life Park Inc.
OEQC
Hank Banner
Edward Laws
Jacquelin Miller
Alexis Cheong Linder

March 10, 1981

Dr. Diane C. Drigot
Acting Director
University of Hawaii at Manoa
Environmental Center
Crawford 317
2550 Campus Road
Honolulu, Hawaii 96822

Dear Dr. Drigot:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your letter of February 23, 1981 to the Department of Land Utilization:

Salt-Water Handling Facilities

The proposed wastewater injection wells will be tested before connection to the treatment plant. Dyes will be used to detect presence of any effluent in salt-water intakes or other shoreline areas. No problems for the salt-water system are anticipated, since waste-water will be injected at a relatively great depth below sea level and not near the surface. As a comparison, the existing system is not affected by wastewater presently being disposed below ground.

Any concentration of nutrients in the wastewater effluent should be sufficiently dispersed and diluted upon reaching the ocean. Subsurface discharge of 40,000 gallons per day is not expected to affect the Class AA waters. Wave action along the shoreline in this area also will cause the rapid mixing and dilution of any effluent that may rise to the surface.

No effects are expected in the quality of salt-water being drawn through the proposed intake. However, water quality will be monitored.

Sewage Treatment Plant

Sludge handling facilities will be provided as part of the Sewage Treatment Plant. SLP will retain a certified operator to insure proper operation and maintenance of the proposed Sewage Treatment Plant. Operation, maintenance, and monitoring of the plant will be in full compliance with Chapter 38 of the Public Health Regulations, State of Hawaii.

If properly maintained, the Sewage Treatment Plant will not affect Makapuu Beach Park with unpleasant odors. The Treatment Plant will be designed with the best state-of-the-art technology to eliminate this potential problem.

Potable Water

The proposed improvements will require an additional 48,000 gallons per day of potable water which will be obtained from the City and County Board of Water Supply. We notified the Board of this requirement by way of a letter written in response to Board of Water Supply comments on the subject EIS.

Employment

Approximately 6-8 high school students participate in SLP's training program each semester. Of these trainees 40% leave to attend college. If any of the remaining 60% are truly interested in working at the Park (and have not signed up for the program simply to get out of high school classes), he is given priority when a job opening occurs. SLP has hired several of their trainees in the past. SLP will not be affected by budget cuts for the CETA program, as it currently has no CETA workers. The one CETA worker employed at SLP last year has been hired as a regular staff member.

Visual Impact

Design and landscaping plans have not been finalized, but preservation of scenic views will be an important objective in the design of all proposed improvements. The berm that surrounds SLP will conceal improvements planned on the periphery of the Park. Currently there is a 10' difference in elevation between the location of the proposed Sea Lion Stadium and Sewage Treatment Plant and the section of Kalanianaole Highway adjacent to it.

Traffic

Contrary to common assumption, the average number of visitors to SLP on weekends is less than the average number of weekday visitors: 1,500 on Saturday and 1,600 on Sunday compared to 1,760 on weekdays. Given these figures and the fact that the upper range figures used in the EIS for traffic to Sandy and Makapuu Beaches reflect typical weekend counts, weekend traffic impacts would not be significantly different from reported weekday impacts.

Beach park attendance may rise, but the number of cars at Makapuu and Sandy Beaches will be restricted due to limited parking. If the increasing demands in the Hawaii Kai and Queen's Beach area use existing bus service to go to the beaches, there will be no traffic hazard associated with vehicle and pedestrian crossing, because buses coming from the Hawaii Kai/Queen's Beach direction stop on the makai side of Kalanianaole Highway. Beach-goers will not have to cross the street.

SLP visitors arriving by bus do not have to cross Kalanianaole Highway either, as the buses (from both directions) stop on SLP property at the admission gate to let off visitors.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH/CK:lt

cc: DLU
OEQC

University of Hawaii at Manoa

Water Resources Research Center
Holmes Hall 283 • 2540 Dole Street
Honolulu, Hawaii 96822

13 February 1981

RECEIVED
FEB 20 1981
EDAW Inc.

Department of Land Utilization
City & County of Honolulu
650 South King Street
Honolulu, HI 96813

Gentlemen:

Subject: Draft EIS for Proposed Expansion of Sea Life Park

We have reviewed the subject Draft EIS and offer the following comments:

1. P. 19. Exhibit II-9 indicates that the proposed injection well for effluent disposal from the new sewage treatment plant will be only 350 feet from the proposed intake of the new 16" saltwater line. This spacing may be too close.

   The hydrologic impact of the sewage effluent wells should be addressed in the EIS. There may be deleterious chemicals as well as salinity and nutrient (nitrate and phosphate) changes in the quality of the saltwater intake due to the injected effluent. Any nutrient increase in the saltwater will have an impact on the tanks such as stimulation of algae growth. The effect of the sewage effluent on the adjoining Class AA coastal waters also need addressing.

2. In the proposed expansion, 8.3 million gallons/day (mgd) of seawater will be withdrawn and then re-injected into the ground. The potential water quality impact should be addressed both as to its effect on the groundwater aquifer and to the coastal Class AA waters.

3. Is a wastewater discharge permit required? If it is, the list of necessary permits (p. 86) does not include this.

4. The amount, source and its impact of additional freshwater supply needed for the expansion is not addressed.

Thank you for the opportunity to review this EIS. The material was reviewed by WRRC and affiliate personnel.

Sincerely,

Edwin T. Murabayashi
EIS Coordinator

ETM:jm

cc: Y.S. Fok
H. Gee
C. Liu
F. Peterson
Sea Life Park, Inc.
Env. Center

March 10, 1981

Mr. Edwin Murabayashi
EIS Coordinator
Water Resources Research Center
University of Hawaii at Manoa
Holmes Hall 283
2540 Dole Street
Honolulu, Hawaii 96822

Dear Mr. Murabayashi:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your letter of February 13, 1981 to the Department of Land Utilization:

1. The proposed wastewater injection wells will be tested before connection to the treatment plant. Dyes will be used to detect presence of any effluent in salt-water intakes or other shoreline areas. No problems for the salt-water system are anticipated, since wastewater will be injected at a relatively great depth below sea level and not near the surface. As a comparison, the existing system is not affected by wastewater presently being disposed below ground.

   Any concentration of nutrients in the wastewater effluent should be sufficiently dispersed and diluted upon reaching the ocean. Subsurface discharge of 40,000 gallons per day is not expected to affect the Class AA waters. Wave action along the shoreline in this area also will cause the rapid mixing and dilution of any effluent that may rise to the surface.

   No effects are expected in the quality of salt-water being drawn through the proposed intake. However, water quality will be monitored.

2. Subsurface disposal of 8.3 million gallons per day of sea-water will not affect the ground water aquifer or coastal Class AA waters. There is no potable ground water source in this area. The seawater being discharged is similar in quality to the coastal water with possibly a slight reduction in dissolved oxygen. Current disposal of 10.8 mgd from existing tanks show no effect on coastal waters.

3. A permit to operate a private wastewater treatment facility to include effluent disposal will be obtained from the State Department of Health in accordance with Chapter 38 of the Public Health Regulations. The list on page 86 has been amended to include this permit.

4. The proposed improvements will require an additional 48,000 gallons per day of potable water which will be obtained from the City and County Board of Water Supply's system. The Board will review and approve construction plans and will allocate water for the project depending upon the availability of water at the time the building permits are submitted to them.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH/CK:lt

cc: DLU
OEQC

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

WILLARD T. CHOW
CHIEF PLANNING OFFICER

DGP1/81-179(RK)

February 5, 1981

MEMORANDUM

TO : MR. MICHAEL M. McELROY, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM : WILLARD T. CHOW, CHIEF PLANNING OFFICER

SUBJECT: PROPOSED EXPANSION OF THE SEA LIFE PARK
ENVIRONMENTAL IMPACT STATEMENT

We have reviewed the Environmental Impact Statement and feel that discussion on the following topics should be expanded.

Visual Impacts

The natural environment, the scenic backdrop on the Koolau and the sea are major resources in the vicinity of Sea Life Park. Every effort should be made to protect and preserve Oahu's natural environment.* The EIS, therefore, should provide more than a general discussion of the project's visual impact. The impact statement should also include discussion on the possible loss of open space continuity in a mauka direction from Kalanianaole Highway and the ways to lessen the visual impact of a 21-acre urban type use and structures in a conservation area.

Traffic and Parking

Traffic impact in the Sea Life Park vicinity is based on two weekday counts (Tuesday, March 28, and Wednesday, March 29, 1978). Discussion should also focus on weekend travel patterns when peak weekday traffic is likely to occur in the area. There is heavy concentration of attractions on the coastal highway leading to Sea Life Park. By itself, each destination

* Adopted GP/proposed DP statements.

point is a large generator of traffic, and the cumulative effect on weekends with all likely traffic impediments occurring should also be reviewed.

If the expanded Sea Life Park is able to generate the level of attendance projected, then discussions should cover

1. The traffic impact to the Hawaii Kai and Waimanalo communities. With the success of the Sea Life Park operation, heavier "pass through" traffic is a distinct possibility. Hawaii Kai may be more severely affected when Oahu residents and the proposed Queen's Beach visitors wishing to "by pass" the Hanauma Bay scenic areas begin utilizing the local streets.

2. The shortage of off-street parking spaces which may occur at major coastal scenic spots as a result of the increase of visitor/resident stopovers before arriving at Sea Life Park.

Thank you for the opportunity of reviewing the impact statement.

WILLARD T. CHOW
Chief Planning Officer

cc: OEQC
√Sea Life Park, Inc.

March 10, 1981

Mr. Willard Chow
Chief Planning Officer
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Chow:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo of February 5, 1981 to Mr. Michael McElroy of the Department of Land Utilization:

Visual Impact

As stated in the EIS on page 56, most of the proposed improvements will not alter scenic views because the additions are small in scale and fit within the existing Park perimeter.

A berm that surrounds SLP will conceal improvements planned on the periphery of the Park. The tallest structure proposed is a 34 foot Shark Tank to be located near the Park entrance. Visual impact of the tank will be softened by an additional berm of approximately 20 feet that will conceal everything but the roof of the tank which will be done in a color and design compatible with its natural surroundings.

All improvements will be properly landscaped, including the proposed parking expansion which was previously approved by DLNR November 28, 1977 in the original SLP planned development.

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

Traffic and Parking

Weekend Traffic: Contrary to common assumption, the average number of visitors to SLP on weekends is less than the average number of weekday visitors: 1,500 on Saturday and 1,600 on Sunday compared to 1,760 on weekdays. Given these figures and the fact that the upper range figures used in the EIS for traffic to Sandy and Makapuu Beaches reflect typical weekend counts, weekend traffic impact would not be significantly different from reported weekday impacts.

1. Traffic Impact on Hawaii Kai and Waimanalo: Unfortunately there are no figures available on the distribution of SLP visitors by direction of approach and departure. The only statement that can be made with some certainty is that the increased tour bus traffic will not affect Hawaii Kai. As a general rule SLP is one stop on the "mini-circle island" tour. Tour buses that arrive at SLP from the west (past Waimanalo) will continue travelling to the east past Blow Hole and Hanauma Bay. Buses arriving from the east will past these scenic spots before stopping at SLP and continuing past Waimanalo.

   Assuming that automobile visits to SLP will be made by either tourists or Oahu residents bringing visitors to the Park, Hawaii Kai will not be impacted by "pass through" traffic. Tourists will be unfamiliar with the short-cut and would probably prefer the scenic route to view Hanauma Bay, Blow Hole and other scenic look-out points.

   In most cases Oahu residents driving to SLP do so to accompany visitors. Since SLP is quite a distance from major populated centers, most Oahu residents would want to show their guests the many scenic sights along Kalanianaole Highway in one drive on the way to SLP than make another trip to cover places such as Hanauma Bay, Blow Hole and scenic look-outs that would be missed if the short-cut through Hawaii Kai is taken.

The traffic impact on Waimanalo should not be serious. Although traffic may increase by 20%, from 8,209 to 10,185 in 1990 (see Chart A), the 12,200 to 13,000 8 hour road capacity of Waimanalo (estimated by DOT) appears to be adequate.

Chart A

	1980	1983	1990
Cars to SLP[1)]	645	733	1,149
Cars to SLP and Sandy and Makapuu Beaches[2)]	2,227	2,315	2,750
100% traffic around Makapuu Point (assuming that SLP and 2 beaches continue to generate 27% of the traffic around Makapuu Point)[4)]	8,209[3)]	8,574[4)]	10,185[4)]

Source: 1) EIS p. 59

2) EIS p. 59

3) EIS p. 57

4) Based on the fact 73% of the total traffic travelling around Makapuu Point is stopping elsewhere. EIS p. 59.

2. Parking at Major Scenic Spots: SLP has no control over the parking facilities outside its boundaries and has in fact been a net contributor of parking spaces in the area for beach-goers. With the proposed expansion of parking, SLP will probably continue in this role.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: DLU
OEQC

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4411

EILEEN R. ANDERSON
MAYOR

MICHAEL M. McELROY
DIRECTOR

79/SMA-18(MK)

February 24, 1981

Mrs. Duk Hee Murabayashi
EDAW, Inc.
1136 Union Mall
Suite 201
Honolulu, Hawaii 96813

Dear Mrs. Murabayashi:

Draft Environmental Impact Statement (EIS)
for Sea Life Park

We have reviewed the Draft EIS and offer the following comments:

Saltwater Handling Facility (Page 20)

A 16-inch saltwater line will be installed at Makapuu Beach Park. Are any agency permits necessary for the installation of this new intake pipe? Will this pipe affect recreational activities at the beach park?

Sewage Treatment Facilities (Page 20)

The method of sewage treatment and disposal should be explained in the EIS. If the method involves disposal of sludge, the means and location of sludge disposal should be discussed.

Flood Hazards (Page 42)

It is mentioned that the project site is situated in Zone 1, an area of undetermined but possible flood hazards. The Draft EIS also includes a map of potential flood areas and concludes that flooding by riverine or tsunami causes is a remote possibility. The EIS should indicate the furthest inland flooding boundary and tsunami run-up boundary ever recorded. This information may be useful in determining the appropriateness of the site selected for the proposed sewage treatment plant.

Drainage

The project will involve the paving of a significant area for additional parking spaces. Potential run-off and drainage probiems, if any, and mitigative measures should be discussed in the Draft EIS.

Visitor Projections (Page 65)

The number of visitors to Sea Life Park is projected to increase at a rate of 5% annually. Is this projection based on an increase in the number of tourists, or Hawaii residents? According to Exhibit V-6, the vistor counts do not reflect a steady increase; rather, they fluctuate significantly over the past 10 years. What is the basis for this 5% steady annual increase?

Should you have any questions regarding this review, please contact Marge Kimmerer of our staff at 523-4077.

Very truly yours,

MICHAEL M. McELROY
Director of Land Utilization

MMM:sl

March 10, 1981

Mr. Michael McElroy
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. McElroy:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your letter of February 24, 1981:

Salt-Water Handling Facility

A construction permit is required from DOT (for laying salt-water lines under Kalanianaole Highway). City and County of Honolulu Department of Parks and Recreation must approve plans, since pipes will be lain across Makapuu Beach Park.

When completed, neither of the two proposed salt-water lines will affect recreational activities at Makapuu Beach Park, as they are underground and undetectable. During construction of the lines, SLP will coordinate its activities with the City and County Department of Parks and Recreation to minimize any adverse impact on recreation.

Sewage Treatment Facility

Sludge handling facilities will be provided as part of the Sewage Treatment Plant. Operation, maintenance and monitoring of the plant will be in full compliance with Chapter 38 of the Public Health Regulation, State of Hawaii.

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

Flood Hazards

As stated on page 43 of the EIS, SLP is outside the tsunami flood area and the 100-year flood boundary with much less than 0.5% chance of flooding in any given year. No information is available on the furtherest inland flooding boundary and tsunami run-up boundary ever recorded.

Drainage

Run-off and drainage problems are not anticipated for a number of reasons. The site is in a semi-arid zone, receiving approximately 30 inches of rain annually. Proper landscaping and correct construction procedures, including use of collection ponds will minimize drainage problems. The run-off that does occur will be readily accommodated by the porous fill land and volcanic rock.

Visitor Projections

Given the State policy to foster an annual Statewide visitor growth rate of 5% to 1985 and 4% thereafter to 1990 (State Tourism Functional Plan Implementing Action A(6) (a)), an assumption of a 5% increase in the number of visitors appears reasonable.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: OEQC

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

ROY A. PARKER
DIRECTOR

TE1/81-205

February 26, 1981

MEMORANDUM

TO : MICHAEL M. McELROY, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM : ROY A. PARKER, DIRECTOR Roy Parker

SUBJECT: DRAFT EIS FOR PROPOSED EXPANSION OF SEA LIFE PARK MAKAPUU

We have reviewed your submittal and feel that very little discussion is made regarding City bus service to Sea Life Park or the impacts of the proposed expansion on the existing and future bus services.

On page 60, a statement is made that "The expansion will provide 209 more automobile parking spaces for a total of 409 and 16 more bus spaces for a total of 37." It should be clarified that the total of 37 bus parking stalls are for tour buses.

If there are any questions, please contact Dexter Eji of my staff at extension 4199.

RAP:dy
cc: Sea Life Park, Inc.

March 10, 1981

Mr. Roy Parker
Director
Department of Transportation Services
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Parker:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo of February 26, 1981 to Mr. Michael McElroy of the Department of Land Utilization:

According to the Honolulu Bus Study conducted for the City in October 1979 by ATE Management and Service Company, two bus routes and 17 buses serve SLP, stopping at the admission gate. With headways of 30 minutes in each direction, a City bus stops at the SLP admission gate every 15 minutes. During the study period, 22 east-bound buses and 21-west bound buses were surveyed during the week, resulting statistics follow:

East-bound: 56 passengers embarked at SLP during the study period (average 2.5 per trip).

117 passengers disembarked at SLP during study period (average 5.3 per trip).

364 passengers were on board the buses after the SLP stop (average 16.5 per trip).

West-bound: 55 passengers embarked at SLP during study period (average 2.6 per trip).

28 passengers disembarked at SLP during study period (average 1.3 per trip).

414 passengers were on board after the SLP stop (average 19.7 per trip).

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

Although regular service on weekends to SLP is reduced to stops every 30 minutes at SLP, the addition of a beach bus with 1 hour headways in each direction (from Honolulu Zoo to Waimanalo and back) results in practically the same service with buses stopping at SLP every 15 minutes. Assuming that the percentage of visitors to SLP using the City bus is the same on weekdays and weekends, the number of bus riders to and from SLP is smaller during the weekend since visitor attendance to SLP is lower on weekends.

For clarification, the sentence in question on page 60 will be amended to read, "The expansion will provide 209 more automobile parking spaces for a total of 409 and 16 more bus spaces for a total of 37 spaces for tour buses."

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: DLU
OEQC

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

ROBERT K. MASUDA
DIRECTOR

February 11, 1981

MEMORANDUM

TO : MICHAEL M. McELROY, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM : ROBERT K. MASUDA, DIRECTOR

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE PROPOSED EXPANSION OF SEA LIFE PARK

We have reviewed the EIS for proposed improvements at Sea Life Park and offer the following comments:

1. On Page 3 of the EIS, it is mentioned that the lease agreement between Sea Life Park Incorporated (SLPI) and the Department of Land and Natural Resources includes necessary pipeline and pump site easements through Makapuu Beach Park which is on Executive Order to the City, for salt water utilization. We have no records indicating the reservation by the State nor the granting of these easements to SLPI. Therefore, we would appreciate copies of legal documents which would clarify this matter.

2. The installation of two additional salt water lines through the beach park will have an impact on rare sandalwood trees and picnic areas which we have recently developed. Prior to installation of these lines, we would appreciate the opportunity to review construction drawings and possible alternate salt water line routes to ensure minimum negative impacts on our beach park.

RKM:vc

cc: Sea Life Park Inc.
State DLNR

March 10, 1981

Mr. Robert Masuda
Director
Department of Parks and Recreation
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Masuda:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo of February 11, 1981 to Mr. Michael McElroy of the Department of Land Utilization:

1. Enclosed is a copy of the lease agreement between Sea Life Park Incorporated and the Department of Land and Natural Resources. (See bottom of page 3).

2. You will have the opportunity to review construction drawings for your approval before installation of two additional salt-water lines through the beach park.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

Enclosure

cc: DLU w/enclosure
OEQC w/enclosure

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

File: Lease (Kaupo Park)

Ad Bk. 24:70
L.B.No. F-33 - 7/27/62

KAUPO PARK LEASE

GENERAL LEASE NO. S-3709

KNOW ALL MEN BY THESE PRESENTS:

1. THAT, the STATE OF HAWAII, by and through its Board of Land and Natural Resources, hereinafter referred to as the "LESSOR", did advertise and offer for sale at the front door of the State Office Building in Honolulu, Hawaii, on August 21, 1962, a lease of that certain parcel of land on the Island of Oahu, more particularly hereinafter described, for the principal purpose of constructing, maintaining and operating a scientific research facility for the study of marine life (hereinafter referred to as "research facility") and a public exhibiting facility of marine life (hereinafter referred to as "exhibiting facility"), together with easements for pipeline rights-of-way for the intake and discharge of sea waters; and

2. THAT, at said auction sale [illegible] non-profit FOR MARINE RESEARCH, a Hawaii corporation, whose business and post office address is 2227-A Halaimaua Avenue, Honolulu, Hawaii, hereinafter referred to as the "LESSEE", became the highest bidder therefor; and

3. THAT, pursuant to the terms of said sale and in consideration of the payment made by the Lessee to the Lessor of the sum of SIX THOUSAND AND NO/100 ---------- DOLLARS ($6,000.00), as half of the first year's rent as hereinafter provided, the receipt of which is hereby acknowledged, and in further consideration of the terms, conditions, covenants and agreements herein-

after contained and on the part of the Lessee to be kept, observed and performed, the Lessor hereby leases and demises to the Lessee and the Lessee rents and leases from the Lessor the lands hereinafter described for the principal purpose of constructing, maintaining and operating a research facility and an exhibiting facility;

GOVERNMENT LAND OF WAIMANALO

Waimanalo, Koolaupoko, Oahu, Hawaii

Beginning at the east corner of this parcel of land, on the boundary between the lands of Waimanalo and Maunalua and on the southwesterly side of Kalanianaole Highway, the coordinates of said point of beginning referred to Government Survey Triangulation Station "MAKAPUU" being 226.82 feet North and 1609.82 feet West, as shown on Government Survey Registered Map 2832, thence running by azimuths measured clockwise from True South:-

Along top of main ridge of Koolau Range, along L.C.Aw. 7713 Apana 30 to V. Kamamalu (Land of Maunalua) for the next 12 courses, the direct azimuths and distances between points on said main ridge being;

1. 92° 09' 483.40 feet;
2. 59° 35' 500.00 feet;
3. 136° 55' 690.00 feet;
4. 96° 55' 490.00 feet;
5. 159° 00' 250.00 feet;
6. 109° 50' 370.00 feet;
7. 155° 45' 350.00 feet;
8. 127° 15' 1100.00 feet;
9. 81° 15' 580.00 feet;
10. 150° 20' 370.00 feet;
11. 109° 10' 380.00 feet;
12. 154° 20' 1180.00 feet;
13. 223° 04' 684.66 feet along the remainder of the Hawaiian Home Land of Waimanalo;

14. 313° 04' 557.15 feet along the southwest side of Kalanianaole Highway (100 feet wide);

15. Thence along the southwest side of Kalanianaole Highway (100 feet wide) on a curve to the right having a radius of 2799.93 feet, the chord azimuth and distance being: 316° 32' 338.61 feet;

16. 320° 00' 107.05 feet along the southwest side of Kalanianaole Highway (100 feet wide);

17. Thence along the southwest side of Kalanianaole Highway (100 feet wide) on a curve to the left having a radius of 1259.01 feet, the chord azimuth and distance being: 293° 32' 1122.22 feet;

18. 267° 04' 194.87 feet along the southwest side of Kalanianaole Highway (100 feet wide);

19. Thence along the southwest side of Kalanianaole Highway (100 feet wide) on a curve to the right having a radius of 1031.28 feet, the chord azimuth and distance being: 314° 01' 1580.31 feet;

20. 0° 58' 49.80 feet along the southwest side of Kalanianaole Highway (100 feet wide);

21. Thence along the southwest side of Kalanianaole Highway (100 feet wide) on a curve to the left having a radius of 884.02 feet, the chord azimuth and distance being: 341° 29' 589.70 feet;

22. 322° 00' 340.41 feet along the southwest side of Kalanianaole Highway (100 feet wide);

23. Thence along the southwest side of Kalanianaole Highway (100 feet wide) on a curve to the left having a radius of 702.27 feet, the chord azimuth and distance being: 298° 30' 580.06 feet;

24. 275° 00' 256.88 feet along the southwest side of Kalanianaole Highway (100 feet wide);

25. Thence along the southwest side of Kalanianaole Highway (100 feet wide) on a curve to the right having a radius of 345.28 feet, the chord azimuth and distance being: 303° 32' 48" 330.00 feet to the point of beginning and containing an AREA OF 116.0 ACRES.

TOGETHER with suitable easements under and across Kalanianaole Highway and under and across Kaupo Beach Park to the ocean for the pumping and discharge of sea water as required for the operation of the exhibiting and research facilities, such easements to be determined as to size and exact location by engineering requirements and not to exceed the minimum area actually necessary for the purpose; PROVIDED, that installation and utili-

zation of such permitted facilities in subject easements shall be effected with the minimum possible interference with the utilization of said Kalanianaole Highway and Kaupo Beach Park for their respective purposes and with the approval of the State Department of Transporation, Highways Division, and the City and County of Honolulu.

4. TO HAVE AND TO HOLD the demised premises unto the Lessee for the term of sixty-five (65) years, commencing on the first day of October, 1962, and ending on and including the 20th day of October, 2027, unless sooner terminated as hereinafter provided, the Lessor reserving and the Lessee yielding and paying therefor to the Lessor at the State office charged with the collection of lease rentals at Honolulu, City and County of Honolulu, Hawaii, the annual rent semi-annually and in advance as hereinafter provided:

(a) For the first twenty (20) years the sum of [illegible] DOLLARS ($12,000.00) per annum, which sum shall have been established by bid at public auction, or 1.2% of the gross sales and business transacted per annum as defined below, whichever is the larger sum;

(b) At the end of the first twenty (20) years, and every ten (10) years thereafter, a new rental shall be determined as provided in Section 17, Act 32, Session Laws of Hawaii 1962.

5. DEFINITION OF "SALES AND BUSINESS TRANSACTED"

The terms "sales and business transacted" means all income, cash or accrued, from the sale of all goods, wares and merchandise including gate receipts for general and special admissions, sold in, upon or from any part of the demised premises

-4-

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

ROBERT K. MASUDA
DIRECTOR

March 20, 1981

RECEIVED
MAR 25 1981
EDAW Inc.

Mrs. Duk Hee Murabayashi
Vice President
EDAW, Inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813

Dear Mrs. Murabayashi:

SUBJECT: EIS FOR THE PROPOSED EXPANSION OF SEA LIFE PARK

Thank you for sending a copy of the lease agreement between Sea Life Park Incorporated and the Department of Land and Natural Resources.

The lease document indicates that all easements and installation of facilities on or through Makapuu Beach Park require prior approval from the City and County of Honolulu. Pursuant to this provision, and as we have mentioned in our memorandum of February 11, 1981, the proposed salt water lines will have a detrimental impact on existing sandalwood trees and picnic areas which we have recently developed. Therefore, we recommend the consideration of alternate water line routes. Further, we suggest you coordinate with our landscape architects, before preparing construction plans, in establishing alternate routes which would ensure minimum impact on our beach park.

Sincerely yours,

ROBERT K. MASUDA, Director

RKM:vc

cc: DLU
OEQC
DLNR

April 3, 1981

Mr. Robert Masuda
Director
Department of Parks and Recreation
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Masuda:

Re: EIS for the Proposed Expansion of Sea Life Park

As you suggested, we will coordinate plans for alignment of saltwater lines through Makapuu Beach Park. We have already met with two of your staff members who have suggested tentative alternate alignments. SLP will continue coordination with your Department to assure minimal disturbance to the Beach Park, to plant habitats (especially beach sandalwood and beach spurge) and natural land features, including sand dunes. During the design stage, a field survey will be conducted to establish a definite alignment. If disturbance of Park improvements is unavoidable in the final approved alignment, SLP will restore the improvements to their original state.

As requested by one of your staff members, we will investigate the status of existing easements for SLP.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: OEQC
DLU
SLP

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

MICHAEL J. CHUN
DIRECTOR AND CHIEF ENGINEER

ENV 81-62

February 12, 1981

RECEIVED
FEB 18 1981
EDAW Inc.

MEMORANDUM

TO : MR. MICHAEL M. McELROY, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM : MICHAEL J. CHUN, DIRECTOR AND CHIEF ENGINEER

SUBJECT: EIS FOR THE PROPOSED EXPANSION OF THE SEA LIFE PARK, MAKAPUU, OAHU

The subject EIS was reviewed and we have the following comments.

1. The disposal of sludge from the sewage treatment plant was not discussed. Sludge from private treatment facilities cannot be disposed off into the municipal sewage system.

2. A certified operator should be retained to insure the proper operation and maintenance of the proposed sewage treatment plant.

3. That portion of Kalanianaole Highway fronting Sea Life Park is under State jursidiction.

4. A grading permit will probably be required (page 86).

Michael J. Chun
MICHAEL J. CHUN
Director and Chief Engineer

cc: EDAW Inc.
Engineering
Wastewater Management

March 10, 1981

Mr. Michael Chun
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Chun:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo of February 12, 1981 to Mr. Michael McElroy of the Department of Land Utilization:

1. Sludge handling facilities will be provided as part of the Sewage Treatment Plant.

2. SLP will retain a certified operator to insure proper operation and maintenance of the proposed Sewage Treatment Plant. The operation, maintenance and monitoring of the Plant will be in full compliance with Chapter 38 of the Public Health Regulations, State of Hawaii.

3. SLP is aware that the portion of Kalanianaole Highway fronting its facility is under State jurisdiction.

4. Page 86 will be amended to include a grading permit.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: DLU
OEQC

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA
HONOLULU, HAWAII 96843

COPY

February 11, 1981

TO : MR. MICHAEL M. McELROY
DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM : KAZU HAYASHIDA
BOARD OF WATER SUPPLY

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED EXPANSION OF SEA LIFE PARK

We have the following comments on the environmental impact statement:

1. The construction plans must be coordinated with us.

2. The increase in domestic water use should be mentioned.

3. Because of our "tight" water situation, water commitment determinations are being made only when the building permits are submitted to us for approval. The issuance of a water commitment will depend on the availability of water at the time of application.

4. If the project is constructed in phases, water availability will be determined for each phase as each building permit application is submitted for our review and approval.

If you have questions or require additional information, please call Lawrence Whang at 548-5221.

Kazu Hayashida
KAZU HAYASHIDA
Manager and Chief Engineer

cc: Sea Life Park Inc.

March 10, 1981

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Hayashida:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo of February 11, 1981 to Mr. Michael McElroy of the Department of Land Utilization:

1. Construction plans will be submitted to the Board of Water Supply for review and approval.

2. The proposed addition to SLP will result in additional water consumption of 48,000 gallons per day. The estimated total water demand for SLP will then be 154,000 gallons per day.

3. & 4. SLP expects that the City and County Board of Water Supply will review and approve construction plans and will allocate water for the project depending upon the availability of water at the time building permits are submitted.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

WRH:lt

cc: DLU
OEQC

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

PB 81-105

February 6, 1981

TO: MR. MICHAEL McELROY, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM: ROY H. TANJI
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: PROPOSED EXPANSION OF THE SEA LIFE PARK
ENVIRONMENTAL IMPACT STATEMENT

We have reviewed the subject Environmental Impact Statement and offer the following comment:

It is stated in the first paragraph of page 62 that Sea Life Park does not have a fire protection system that meets the City and County Board of Water Supply standard. An adequate water system should be provided for the project to assure proper fire protection.

Thank you for the opportunity to review the document.

ROY H. TANJI
Director and Building Superintendent

TH:vk
cc: J. Harada
Sea Life Park, Inc.

March 10, 1981

Mr. Roy H. Tanji
Director and Building Superintendent
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Tanji:

Re: EIS for the Proposed Expansion of Sea Life Park

Thank you for reviewing the subject EIS. We submit the following in response to your memo to Mr. Michael McElroy of the Department of Land Utilization:

SLP will comply with the fire protection requirements of the Board of Water Supply and Fire Department when the new construction is completed.

Sincerely,

EDAW inc.

Duk Hee Murabayashi (Mrs.)
Vice President

DHM:lt

cc: DLU
OEQC

EDAW inc.
Environmental Planning Urban Design Landscape Architecture San Francisco Newport Beach Alexandria Fort Collins Honolulu New Orleans Portland Atlanta
1136 Union Mall, Suite 201, Honolulu, Hawaii 96813 Telephone (808) 536-1074

GEORGE R. ARIYOSHI
GOVERNOR

JOHN FARIAS, JR.
CHAIRMAN, BOARD OF AGRICULTURE

STATE OF HAWAII
DEPARTMENT OF AGRICULTURE
1428 SO. KING STREET
HONOLULU, HAWAII 96814

January 28, 1981

MEMORANDUM

To: Department of Land Utilization
City and County of Honolulu

Subject: EIS - Proposed Expansion of the Sea Life Park
TMK: 4-1-14:13

The environmental impact statement has been reviewed by the Department of Agriculture, and we have no comments to offer.

The EIS is herewith returned.

We appreciate the opportunity to comment.

JOHN FARIAS, JR.
Chairman, Board of Agriculture

Encl.

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

DIVISIONS:
CONSERVATION AND ENFORCEMENT
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

January 28, 1981

Mr. Michael M. McElroy
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. McElroy:

SUBJECT: Draft EIS, Proposed Expansion of Sea Life Park
Waimanalo, Oahu. TMK: 4-1-14:13

Our office has reviewed the draft EIS and concurs with its findings: the proposed undertaking will have no impact on historic sites. We also approve of the plans to maintain consultation with an archaeologist as the undertaking proceeds (p. 61).

In the event that any unanticipated sites or remains such as artifacts, shell, bone or charcoal deposits; human burials; rock or coral alignments, pavings, or walls are encountered, please contact this office (548-7460) immediately.

Sincerely yours,

Halston Nagata, Director
Historic Sites Section

cc: Sea Life Park, Inc.
c/o EDAW, Inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813

GEORGE R. ARIYOSHI
Governor

HIDETO KONO
Director

FRANK SKRIVANEK
Deputy Director

DEPARTMENT OF PLANNING
AND ECONOMIC DEVELOPMENT

Kamamalu Building 250 South King St. Honolulu Hawaii • Mailing Address P.O. Box 2359 Honolulu Hawaii 96804

February 19, 1981

COPY

Ref. No. 2751

RECEIVED
FEB 23 1981
EDAW Inc.

Mr. Michael McElroy, Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. McElroy:

SUBJECT: Draft Environmental Impact Statement, Proposed Expansion of the Sea Life Park

We have reviewed the above document and find that it has adequately identified the major environmental impacts which can be anticipated to result from the proposed project.

Thank you for the opportunity to review this matter.

Sincerely,

Hideto Kono

cc: Office of Environmental Quality Control
✔ Sea Life Park
c/o EDAW, Inc.

State of Hawaii
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 Diamond Head Road
Honolulu, Hawaii 96816

28 JAN 1981

HIENG

Department of Land Utilization
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Gentlemen:

Proposed Expansion of the Sea Life Park

We have received a copy of the above subject Environmental Impact Statement and have no comments to offer at this time. The Environmental Impact Statement, as requested, is being forwarded to the Environmental Quality Commission under separate cover.

Sincerely,

JERRY M. MATSUDA
Captain, HANG
Contr & Engr Officer

cc: Sea Life Park, Inc.
c/o EDAW, Inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813

(P)1073.1

JAN 28 1981

Department of Land Utilization
City & County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement on the Proposed Expansion of the Sea Life Park

Thank you for this opportunity to review and comment on the subject project.

The project will not have any adverse environmental effect on any existing or planned facilities serviced by our department.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

MI:jm

cc: √Sea Life Park, Inc.
c/o EDAW, Inc.

GEORGE R. ARIYOSHI
GOVERNOR

FRANKLIN Y.K. SUNN
DIRECTOR

LAWRENCE K. KOSEKI, DSW
DEPUTY DIRECTOR

RICHARD PAGLINAWAN
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF SOCIAL SERVICES AND HOUSING
P. O. Box 339
Honolulu, Hawaii 96809

January 27, 1981

Office of Environmental Quality Control
550 Halekauwila Street, Rm. 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Proposed Expansion of the Sea Life Park

Thank you for the opportunity to review the subject document. We have no comments to make on the document.

Sincerely,

Franklin Y. K. Sunn
Director

'81 FEB 27 P1 2

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

STP 8.7078

February 24, 1981

RECEIVED
FEB 27 1981
EDAW Inc.

Mr. Michael McElroy
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. McElroy:

Environmental Impact Statement
Sea Life Park, Makapuu, Oahu

Thank you for the opportunity to review the subject EIS. We have no substantive comments to offer which could improve the document.

Very truly yours,

Ryokichi Higashionna

Ryokichi Higashionna
Director of Transportation

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858

PODED-PV

12 February 1981

Mr. Michael McElroy
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

RECEIVED
FEB 19 1981
EDAW Inc.

Dear Mr. McElroy:

Thank you for the opportunity to review the Draft Environmental Impact Statement (DEIS) for Sea Life Park. We provide the following comments:

a. No Department of the Army permit is required for the project.

b. Pages 42 and 43 of the DEIS. Based on the Flood Insurance Study for the island of Oahu, the project site is situated in an area of undetermined but possible flood hazards, designated Zone 1.*

A copy of our reply was sent to the proposing party:

Sea Life Park Incorporated (c/o EDAW Inc)
1136 Union Mall, Suite 201
Honolulu, HI 96813

Sincerely,

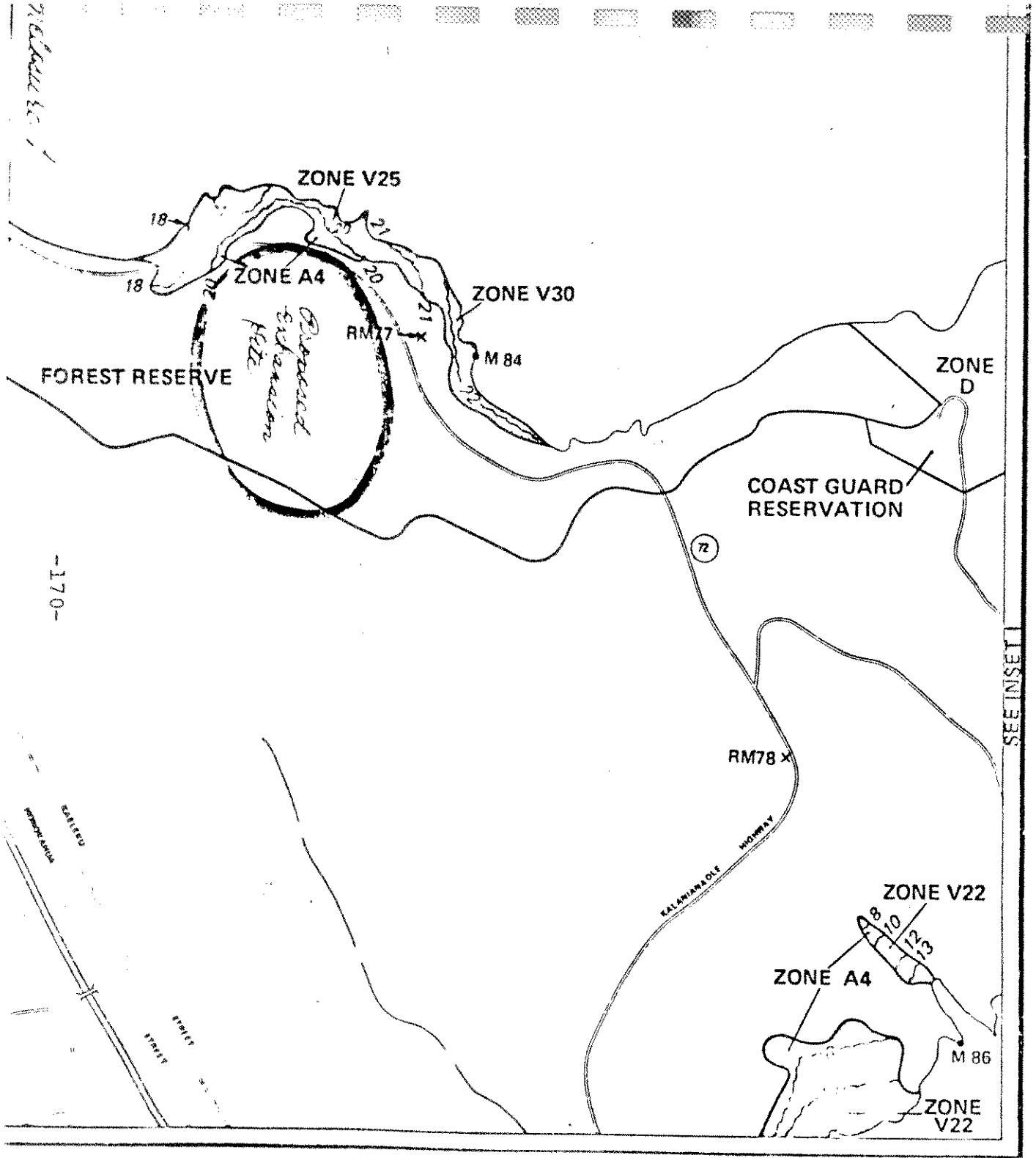
/s/
KISUK CHEUNG
Chief, Engineering Division

1 Incl
As stated

*This is a typographical error and should read as "Zone D". (Per telephone conversation with Mr. Fred Adaniya, Hydrolic Engineer, U. S. Army Corps of Engineers, 3/17/81.)

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30*	Areas of 100-year flood, base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30*	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.
*	The numerals indicate the magnitude of difference between the 100-year and 10-year flood elevations. For numerals between 1-20, the difference is one half of the value; for values greater than 20, the difference is 10 less than the numerals shown. This information is used in establishing insurance rates.
——18——	100-year tsunami or riverine elevation line, with elevation in feet above mean sea level.
————	Zone boundary line



NATIONAL FLOOD INSURANCE PROG

FIRM

FLOOD INSURANCE RATE MA

CITY AND COUNTY OF
HONOLULU, HAWAII

PANEL 95 OF 135
(SEE MAP INDEX FOR PANELS NOT PRINT

COMMUNITY-PANEL NUMBE
150001 0095

EFFECTIVE DAT
SEPTEMBER 3, 19

U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRAT

United States Department of the Interior

FISH AND WILDLIFE SERVICE
300 ALA MOANA BOULEVARD
P.O. BOX 50167
HONOLULU, HAWAII 96850

IN REPLY REFER TO:
ES
Room 6307

January 23, 1981

RECEIVED
JAN 26 1981
EDAW Inc.

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Re: (EIS) Proposed Expansion
of Sea Life Park
Makapuu, Oahu, Hawaii

Dear Sir:

We have reviewed the referenced material and find that due to its location, the proposed project will have no significant deleterious impact on fish and wildlife resources. Please do not hesitate to call on us if we may be of further assistance.

We appreciate the opportunity to comment.

Sincerely yours,

Nevin D. Holmberg
Deputy Project Leader for
Environmental Services

cc: Sea Life Park Inc.
c/o EDAW Inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

P. O. Box 50006
Honolulu, Hawaii
96850

February 6, 1981

Department of Land Utilization
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Sir:

Thank you for letting me review the Draft EIS for the Sea Life Park expansion

I have no comments.

Sincerely,

Max S. Corey
Acting District Conservationist

cc: Sea Life Park Inc
c/o EDAW Inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813

RECEIVED
FEB 11 1981
EDAW Inc.

HEADQUARTERS
NAVAL BASE PEARL HARBOR
BOX 110
PEARL HARBOR, HAWAII 96860

IN REPLY REFER TO:

002A:arm
Ser 179

30 JAN 1981

RECEIVED
FEB 2 1981
EDAW Inc.

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Gentlemen:

Draft Environmental Impact Statement
Proposed Expansion of the Sea Life Park

The Draft Environmental Impact Statement for the proposed expansion of the Sea Life Park forwarded by the Environmental Quality Commission has been reviewed, and the Navy has no comments to offer.

Per the Commission's request, the EIS is being returned by copy of this letter. The opportunity to review the subject EIS is appreciated.

Sincerely,

R. D. EBER
CAPTAIN, CEC, U.S. NAVY
FACILITIES ENGINEER
BY DIRECTION OF THE COMMANDER

Copy to:
Sea Life Park Inc.
c/o EDAW Inc.
1136 Union Mall, Suite 201
Honolulu, HI 96813
State EQC (w/encl)

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY SUPPORT COMMAND, HAWAII
FORT SHAFTER, HAWAII 96858

AP7V-EHE-E

RECEIVED
FEB 4 1981
EDAW Inc.

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Gentlemen:

The Environmental Impact Statement (Draft) for the Proposed Expansion of the Sea Life Park has been reviewed and we have no comments to offer. A small Army installation (former Nike-Hawaii Sites 3 and 4) is located on the ridge overlooking Sea Life Park but will not be affected by the proposed project.

Sincerely,

RAY H. IYO
Acting Director of Engineering
and Housing

Copy Furnished:
Sea Life Park, Inc.
c/o EDAW, Inc.
1136 Union Mall, Suite 201
Honolulu, Hawaii 96813

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

COMMANDER (dpl)
Fourteenth Coast Guard District
Prince Kalanianaole Federal Bldg.
300 Ala Moana Blvd,
Honolulu, Hawaii 96850

Serial 517
11000
28 JAN 1981

RECEIVED
JAN 30 1981
EDAW Inc.

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Sir:

The Coast Guard has reviewed the Environmental Impact Statement prepared on the proposed Expansion of the Sea Life Park and has no objection or constructive comments to offer at the present time.

Sincerely,

J. E. SCHWARTZ
Commander, U. S. Coast Guard
District Planning Officer
By Direction

Copy to: Sea Life Park Inc.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813
PHONE 523-4161

EILEEN R. ANDERSON
MAYOR

JOSEPH K. CONANT
DIRECTOR

RECEIVED
FEB 12 1981
EDAW Inc.

February 10, 1981

Department of Land Utilization
City and County of Honolulu
Honolulu, Hawaii

Gentlemen:

Subject: Proposed Expansion of the
Sea Life Park
Environmental Impact Statement

We have reviewed the subject environmental impact statement and have no comment.

Thank you for forwarding the EIS for our perusal.

Sincerely,

Joseph K. Conant

cc: Sea Life Park, Inc.
c/o EDAW, Inc.
Environmental Quality Commission

RECEIVED
FEB 26 1981
EDAW inc.

LIFE OF THE LAND
A GROUP FOR ENVIRONMENTAL RESEARCH AND ACTION

February 22, 1981

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

RE: Proposed Expansion of the Sea Life Park Draft E.I.S.

Life of the Land extends its compliments to EDAW Inc. for a job well done. We have no major comments to submit. Our concerns expressed earlier have been adeqately addressed and we see no serious problems with the rest of the E.I.S.

Thank you for giving us this opportunity to comment. We would like to remain a consulted party on this matter.

Sincerely yours,

Jim O'Rourke
LOL Staff

cc: EDAW Inc.
Waimanalo N.B.

LIFE OF THE LAND
250 S. Hotel St., Rm. 211
Honolulu, Hawaii 96813
Ph: 521-1300

HOTEL STREET HONOLULU TELEPHONE 521-1300

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
PACIFIC-ASIA REGION
P.O. BOX 50109
HONOLULU, HAWAII 96850

JAN 27 1981

RECEIVED
JAN 28 1981
EDAW Inc.

Department of Land Utilization
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Gentlemen:

We acknowledge receipt of the environmental impact statement for the Proposed Expansion of Sea Life Park at Makapuu, Oahu.

The proposed expansion will have no impact on any aeronautical interest and we have no comments.

Sincerely,

Original signed by

FRANKLIN D. BENSON
Airport Development Programs
Manager

cc:
Sea Life Park
State of Hawaii Environmental Quality
Commission w/encl.

XIV. LIST OF NECESSARY PERMITS

Display Permit (U. S. Department of Agriculture)

Conservation District Use Application for Sewage Treatment Plant (State Department of Land and Natural Resources)*

Fish Collecting Permits (State Department of Land and Natural Resources, Division of Fish and Game)

Wastewater Discharge Permit (State Department of Health)

Construction Permit for Laying Salt-Water Lines under Kalanianaole Highway (State Department of Transportation)

Marine Mammal Permit (National Marine Fisheries Service)

Endangered Species Permit (National Marine Fisheries Service)

Migratory Bird Permit (U. S. Fish and Wildlife Service)

Special Management Area Use Permit (City and County of Honolulu, Department of Land Utilization)

Plan Approval for Salt-Water Lines in Park land (City and County of Honolulu, Department of Parks and Recreation)

Grading Permit (City and County of Honolulu, Department of Public Works)

Building Permit (City and County of Honolulu, Building Department)

Status: The Special Management Area Use Permit is a prerequisite for other permits, in that denial of Special Management Area Use Permit obviates the need for other permits; therefore application for other permits is not expected until Special Management Area Use Permit is granted.

*Because all other proposed facilities are consistent with the original lease and have been previously approved in the 1977 master plan for SLP, they do not require a Conservation District Use Application.

APPENDICES

APPENDIX 1

Update to the Master Plan for Sea Life Park June, 1977

AMBROSE J. ROSEHILL
ATTORNEY-AT-LAW
SUITE 806, CITY BANK BUILDING
810 RICHARDS STREET
HONOLULU, HAWAII 96813

TELEPHONE 533-6007

October 5, 1977

Mr. William Thompson, Director
Department of Land and Natural
Resources
State of Hawaii
Honolulu, Hawaii 96813

Dear Mr. Thompson:

Re: Request by Sea Life, Inc. for Approval of Expansion of Facilities under Kaupo Park Lease - General Lease No. S-3709

On behalf of my client, Sea Life, Inc., a Hawaii corporation, sub-lessee under the Department of Land and Natural Resources Lease, General Lease No. S-3709, we hereby submit for your approval, plans and details for the expansion of existing facilities at Sea Life Park required under terms of the said Lease.

The Lease requires Sea Life Park to construct, maintain and operate a marine life facility, together with easements for pipeline right-of-way for the intake and discharge of sea waters.

Under Section 7, Building Requirements, we include the proposed building plans for the Park together with supporting exhibits for the approval of the Director as to esthetics.

The enclosed plans contemple the initial construction of a shark tank to provide a new marine experience at the park. Details of the new facilities are provided in the enclosed "Facilities for Sea Life, Inc., 1977".

Additional facilities indicated in the Plan and supporting documents includes:

(1) Parking expansion, road re-alighment of entry.

(2) The Park is planning to re-model the existing entrance to facilitate accessability to the Park.

(3) Supporting facilities include plans for expansion of existing food facilities (focal theme restaurant), and new commercial complex (Whaler's Village).

(4) New marine facilities will include a Hawaiian Fish Pond, Aquaculture Breeding Pond, a Sea Lion Theater, a Penquin Pond, and a Porpoise Tank.

(5) Finally, the plans submitted provide for a re-designed pattern of walkways and picnic areas to enhance the flow of people throughout the Park.

We believe that these improvements will provide a wholesome recreational and educational attraction in a healthy park life atmosphere commensurate with the best features of first class public or private attractions of a similiar nature in the United States.

To accomodate the construction of the proposed facilities, renovation of the existing water system will be required. Plans to renovate the existing system are also included to detail the water system required for the new facilities. The existing system requires the utilization of the easement granted under the Lease. The existing system requires the installation of a back-up system to assure the health and safety of the animals in the Park in the event of a malfunction. The safety measure is most important to the Park. Also, the back-up system will provide additional water and drainage for the new marine facilities.

You will note from the plans for the water system, that the facilities utilize the easement provided therefore, below the roadway. The installation of the back-up system will employ the "cut and cover" method, utilizing an open trench with detoured traffic on the road shoulder and the use of steel plates over the cut at night and full safety precautions. The estimated time for this job is five (5) working days.

The costs of installation for the additions to the existing water system for the park will be submitted under separate cover in the near future.

We would welcome an opportunity to review this matter with you and your staff at a mutually convenient time to provide any information or data to assist in the processing of the plans submitted.

Very truly yours,

AMBROSE J. ROSEHILL
Attorney for Sea Life, Inc.

AJR:psm
Enclosures
cc: Bishop Corporation
Sea Life, Inc.
Mr. Steve Au

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

W. Y. THOMPSON, Chairman
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMASU
DEPUTY TO THE CHAIRMAN

DIVISIONS:
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

November 28, 1977

Mr. Ambrose J. Rosehill
Attorney-At-Law
Suite 806, City Bank Building
810 Richards Street
Honolulu, HI 96813

Dear Mr. Rosehill:

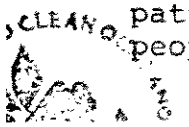
Thank you for your letter of October 5, 1977 in which you on behalf of your client, Sea Life, Inc., lessee under Department of Land and Natural Resources lease, General Lease No. S-3709, submitted for our approval, plans and details for the expansion of existing facilities at Sea Life Park required under the terms of the above lease.

We have carefully reviewed the lease document and find the lease requires Sea Life Park to construct, maintain and operate a marine life facility together with easements for pipeline right-of-way for the intake and discharge of sea waters.

Further, under the terms of the lease, we find that any proposed building plans for the park, together with their supporting exhibits, be approved by the Chairman of the Board as to aesthetics.

We have carefully reviewed your proposal which includes a shark tank and corresponding water system, parking expansion incorporating road re-alignment of entry, the remodeling of the existing entrance to facilitate accessibility to the park, supporting facilities including plans for the expansion of your existing food facilities and a new commercial complex as well as new marine facilities including a Hawaiian Fish Pond, Aquaculture Breeding Pond, Sea Lion Theater, Penguin Pond and Porpoise Tank.

Lastly, we note that your plans provide for a redesigned pattern of walkways and picnic areas to enhance the flow of people throughout the park.



Our analysis of this proposal indicates that your have formulated a "master-plan" for the use of the area. We are pleased to see your client use a master-plan concept. It is our feeling that these improvements will provide a wholesome recreational and educational attraction in a healthy park atmosphere.

Inasmuch as this master-plan is in compliance with the requirements of General Lease No. S-3709, we are pleased to approve your master plan as such, provided however, the following conditions remain in effect:

1. The applicant shall submit a minimum of three (3) copies of plans for earth-work, construction, landscaping and/or revegetation to the Chairman for review and approval prior to the start of work activities:

2. The applicant shall notify the department upon commencement and completion of all work;

3. All clearing and grading shall be done subject to the approval of the Chairman;

4. All exposed areas shall be revegetated such that approval of the Chairman is satisfied;

5. All debris and rubbish from the work area shall be removed to sanitary disposal sites approved by the Chairman;

6. All structures shall be painted to blend with the environment; and

7. That the sublessee, Sea Life, Inc., shall comply with each and every term, covenant and condition of General Lease No. S-3709, its amendments and this approval.

We appreciate the opportunity of being assistance to you in this matter. Should we be of any further service, please feel free to contact Mr. Roger C. Evans of our Planning Office at 548-7837.

Very truly yours,

W. Y. THOMPSON
Chairman of the Board

Enc.

cc: Mr. M. Kealoha

APPENDIX 2

Department of Land Utilization, Environmental Assessment/Determination, March 12, 1979

79/SMA-18(SE)

MAR 12 1979

Mr. Donald Bremner, Chairman
Environmental Quality Commission
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Chapter 343, HRS
Environmental Assessment/Determination
Sea Life Park Master Building Expansion
Makapuu, Oahu

In accordance with Chapter 343, HRS, we are notifying you of our intent to require an Environmental Impact Statement for the above proposed project. Since the project site is state-owned land in the Conservation District, the EIS is being required under the provisions of Chapter 343, HRS.

By copy of this letter, with attachment, we are informing the applicant of our decision. The contact person for this EIS should be listed as:

Mr. Jack Miyasato
Au Smith and Haworth, Ltd.
1050 Ala Moana Boulevard
Honolulu, Hawaii 96814

If you should have any questions on this matter, please contact Mr. Scott Ezer of our staff at 523-4077.

Very truly yours,

WILLIAM E. WANKET
Acting Director

WEW:sl
Attach.

cc: Jack Miyasato

Department of Land Utilization
79/SMA-18(SE)
March 12, 1979

ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Landowner	:	State of Hawaii
Applicant/Lessee	:	Sea Life, Incorporated
Agent	:	Mr. Jack Miyasato, Au Smith and Haworth, Limited
Project Location	:	Sea Life Park--Makapuu, Oahu
Tax Map Key	:	4-1-14: 13
Request	:	Shoreline Management Permit
Determination	:	EIS Required

I. Proposed Action

The applicant proposes to expand facilities at Sea Life Park, Makapuu, Oahu, on a 61.662-acre lot. The affected parcel lies within the Special Management Area (Ordinance No. 4529), and constitutes a special sub-zone within the state-administered Conservation District.

A. Technical Characteristics

The applicant's submitted master building expansion includes the following:

1. Shark Tank

This would be a reinforced-concrete tank with a 1,000,000-gallon capacity. The triangular-shaped tank would have minimum outside dimensions of 120 feet on a site.

An existing 24" intake line and pump house is insufficient to meet the salt water demands of the new shark tank. Therefore, an additional intake line and pump house is required.

The proposed salt-water system has a turnover rate of once per hour. Inlets will be in at least four locations and drainage will be throughout the bottom. At least four new dispersion wells will be needed for drainage.

In addition, a 30-foot diameter, 4-foot deep holding tank is proposed in support of the shark tank.

2. Parking Expansion

The proposed parking expansion would double the capacity of the existing parking area, from facilities for 200 cars to 400 cars. In addition, bus parking facilities would be increased from 14 to approximately 35 spaces.

3. Road Realignment

The access road to Kalanianaole Highway on the Waimanalo side would be moved a distance of approximately 160 feet towards Waimanalo.

The primary park entrance on the Makapuu side of the park would remain unchanged, but the alignment would be changed in conjunction with the planned expansion of the parking area.

A small artificial waterfall utilizing recirculated water would be constructed at the main entrance.

4. Restaurant

Plans indicate a water-theme restaurant with a 350-seat capacity.

Expansion of the existing food service area is also indicated.

5. Whaler's Village, Commercial Complex

This feature would combine elements of entertainment with exhibits and commercial shops. Specific building dimensions and shops are undetermined.

6. Sea Lion Theater

A 1,000 ± seat amphitheater to house the sea lion show would have a retractable canvas/cable roof structure over the audience.

A training and holding tank would be located at the rear of the amphitheater.

7. Penguin Pool

The penguin pool is envisioned as a shallow, below-grade pool with a lava-rock backdrop intended to simulate the penguins natural environment.

The pool will be located mauka of Whaler's Cove.

8. Porpoise Tank

The proposed porpoise tank will be used for holding and training of animals that are presently located in an existing training facility. Specific dimensions for this tank are not provided.

9. Hawaiian Fish Pond, Aquaculture Breeding Pond

This exhibit is proposed to be located adjacent to the Hawaiian Reef Tank. The exhibit would contrast the ancient Hawaiian techniques of fish rearing, with the modern concept of breeding fish in captivity.

These projects will basically consist of shallow tanks which are cement lined, rock bordered and landscaped. The Hawaiian Fish Pond would be approximately 90 to 100 feet in diameter. The breeding tanks and facilities would encompass an area of approximately 5,000 to 10,000 square feet.

10. Arrival Deck

The present ticket-house entry gate to the park will be redesigned.

11. Keiki Areas

The master expansion plan includes several areas designed for children.

a. Tidal Pool

The tidal pool would consist of a small, open circular or U-shaped tank of 10 feet to 12 feet in diameter. Children would be encouraged to pick up and handle animals such as star fish, sea cucumbers and molluscs.

b. Wet Slide

The proposed artificial wet slide would be adjacent to a new bath-house-restroom facility.

c. Keiki Lagoon

This area would provide a shallow lagoon with rafts, canoes and boats to paddle within the lagoon.

B. Social and Economic Characteristics

1. The proposed action would intensify existing uses on the site.

2. The implementation of the total expansion plan would provide additional permanent job opportunities within the park.

3. Sea Life Park would increase gross receipts.

4. The assessed value of the property would increase.

C. Physical and Environmental Characteristics

1. The site encompasses a 61.662-acre parcel on the mauka side of Kalanianaole Highway, almost directly across the street from Makapuu Beach Park. The site offers spectacular vistas of Makapuu Bay, Makapuu Point and the waters surrounding Kaohikaipu and Manana Islands.

2. The site slopes gently to the north and the east. Elevations on the property range from about 25 feet at the juncture of Kalanianaole Highway and the Waimanalo access road, to approximately 100 feet at the rear of the parking lot.

3. Soils are of the rock land type. These lands are made up of areas where exposed rock covers 25-90% of the surface. Rock outcrops and very shallow soils are the main characteristics.

4. Presently, the entire site is serviced by cesspool. The expansion of the park would increase the liquid and solid waste materials significantly. In addition, at least four additional dispersion wells would be required to handle the increased drainage from the shark tank alone.

5. Offshore waters have been designated Class 'AA'.

II. Affected Environment

The subject parcel is a 61.662-acre lot, located on the mauka side of Kalanianaole Highway at Makapuu, Oahu. The entire site is used as a research center for oceanic studies as well as serving as home for Sea Life Park, a complex offering the public exposure to exhibits on marine environments in addition to commercial shops and restaurants.

The site lies within the Special Management Area (Ordinance No. 4529), and is also identified as a special subzone within the state-administered Conservation District. The parcel is zoned P-1 Preservation District.

Makapuu Beach Park, administered by the City and County of Honolulu, lies makai of Sea Life Park.

A. Major Impacts

Potential major impacts have been broadly identified as follows:

1. Socio-Economic

Effects on employment opportunities at Sea Life Park, and other related support services; increased demand on public services, such as roads, energy, parks, police protection, etc.

2. Physical Environment

Increased vehicular traffic and construction activity with consequent impacts on air quality and noise levels; possible impacts on offshore water quality from increases in liquid wastes; possible effects on Makapuu Beach Park and nearby natural areas due to increased usage.

B. Areas Requiring Further Study

All of the above potential impacts should be examined and discussed. Additional impacts may be identified during the consultation period and should be addressed in the EIS. In discussing the impacts, the applicant should consider the construction and operational phases of the development. Alternatives to the development should be considered including the "no development" alternative.

III. Suggested Agencies to be Consulted in Preparation of EIS

We recommend the following organizations or persons be consulted during preparation of the EIS:

City and County of Honolulu

Board of Water Supply
Fire Department
Police Department
Department of Public Works
Department of Parks & Recreation
Department of Transportation Services
Department of General Planning

State of Hawaii

Office of Environmental Quality Control
Department of Land and Natural Resources
Department of Planning and Economic Development
Department of Transportation
Department of Health

University of Hawaii

Water Resources Research Center

Other

American Lung Association
Life of the Land
Outdoor Circle
Shoreline Protection Alliance
Hayden Aluli
Waimanalo Neighborhood Board
Waimanalo Council of Community Organizations
Hawaii Kai Neighborhood Board
Hawaii Kai Community Council

Solicitation of comments during the consultation period should be accompanied by this EIS Preparation Notice. Additional parties may request to be consulted within 30 days after publication of the Preparation Notice in the "EQC Bulletin". All consulted parties must be given 30 days in which to comment.

IV. Reasons Supporting Determination

The proposed action is found to be "significant" under the criteria established in Section 1:31 of the EIS Regulations. A full disclosure document must, therefore, be prepared in accordance with Chapter 343, HRS.

APPROVED

WILLIAM E. WANKET
Acting Director

WEW:sl

APPENDIX 3

A Letter from Chiniago Inc.,
Archaeological Consultant, July 24, 1980

CHINIAGO INC.

Archaeological Consulting

76 N. KING STREET, ROOM 202 • HONOLULU, HAWAII 96817 • TELEPHONE: (808) 521-2785

July 24, 1980

Dr. Edward Shallenberger
Sea Life Park
Makapuu Point
Waimanalo, Hawaii 96795

Dear Dr. Shallenberger:

On July 23, 1980, I accompanied you on an archaeological reconnaissance of the proposed location of a parking lot expansion at Sea Life Park. This reconnaissance did not reveal the presence of any archaeological or historic remains. McAllister's publication on the archaeology of Oahu indicates an archaeological site in the area [Site 384], but an inspection of the site-location maps at the State Historic Preservation Office shows no such site. It is probable, therefore, that if any sites were formerly located on your property they had been destroyed by the time of the Statewide Inventory of Historic Places in the early 1970s. Construction of the parking lot extension as planned therefore represents no hazard to sites of archaeological or historic significance.

I would like to note that even though no major remains were located during the Statewide Inventory of Historic Places, it is still quite possible that small and less-obvious remains may be present on undisturbed portions of your property. If any further construction activities are planned, we would advise another archaeological reconnaissance.

Sincerely yours,

William Barrera, Jr.
President