

**FINAL ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT IMPACT**

**2025 MASTER PLAN IMPROVEMENTS
KAHULUI COMMERCIAL HARBOR**


Job H.C. 3334

District of Wailuku, County of Maui
Tax Map Key: 3-7-01:21 & 22; 3-7-10: 2,3,6,13,15, 21,22,
24,26,27,28,30, 32 & 34; and 3-7-08:2,3,4, & 6

Proposing Agency:

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DEPARTMENT OF TRANSPORTATION
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This document is prepared pursuant to Chapter 343, HRS and
the Administrative Rules, Title 11, Chapter 200 of the Hawaii Department of Health.

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KAHULUI COMMERCIAL HARBOR
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SECTION 1.0 INTRODUCTION

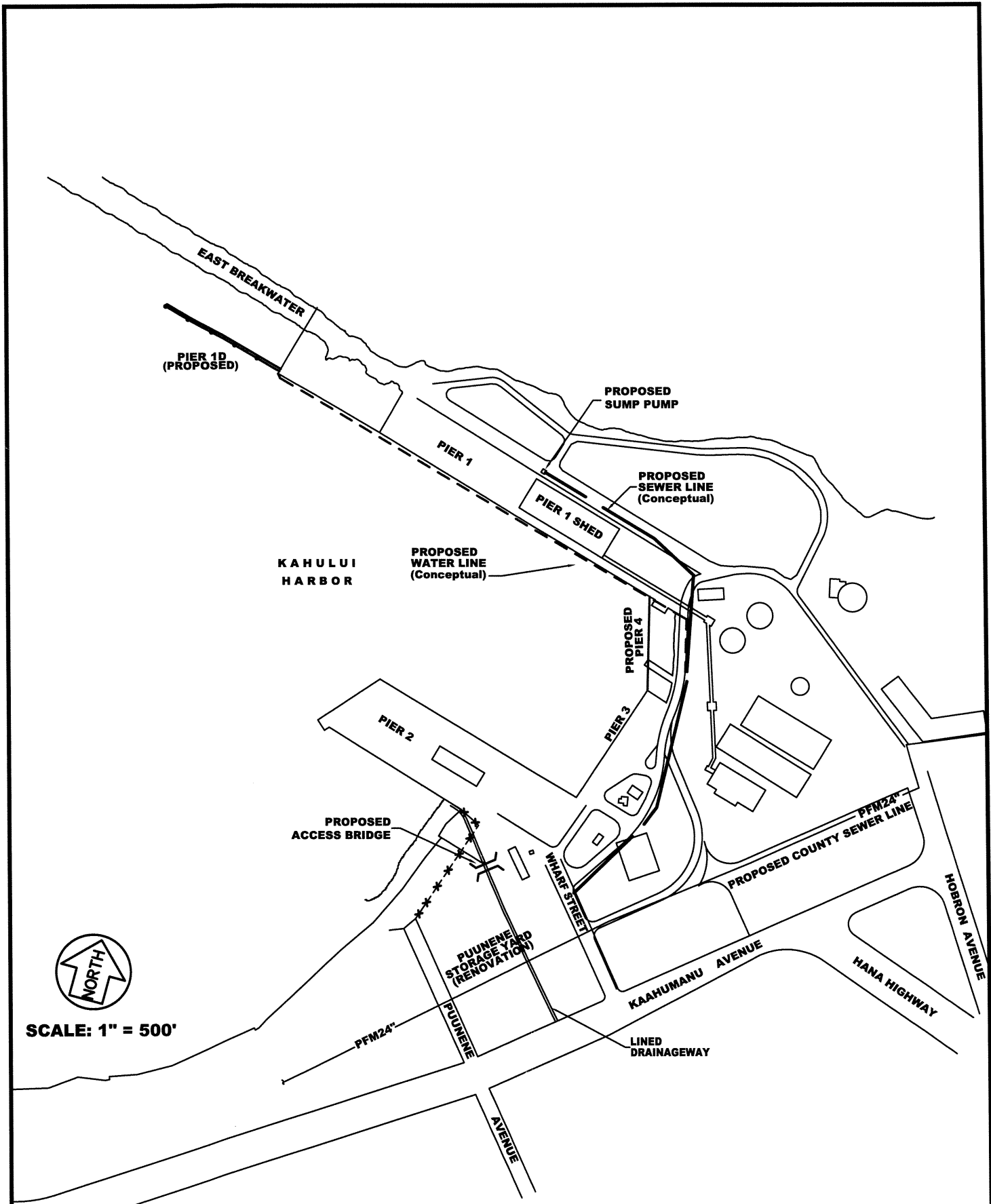
This Environmental Assessment (EA) is prepared for the proposed short-term improvements at the Kahului Commercial Harbor pursuant to Chapter 343, Hawaii Revised Statutes (HRS) and the rules and regulations established by the Department of Health, Administrative Rules, Title 11, Chapter 200. The purpose of the EA is to disclose the environmental, economic and technical consequences of the proposed project (improvements) to the public officials responsible for approving the action. Typically, for those actions which do not have a significant effect, a Finding of No Significant Impact (FONSI) can be determined. For those actions which will have a significant effect, an Environmental Impact Statement must be completed. The proposing agency is the Department of Transportation, Harbors Division (DOT-HAR) and the accepting authority is the Department of Transportation. This EA is prepared because the proposed project will use State of Hawaii land and funds, and will be used for the application of other permits, as necessary.

1.1 SUMMARY OF THE PREFERRED PROJECT

The DOT-HAR has recently completed the Kahului Commercial Harbor 2025 Master Plan¹ that will serve as a guide for development, maintenance and enhancement of the harbor. The recommendations in the 2025 Master Plan are to ensure the efficient, safe, accessible and economical operations of Kahului Commercial Harbor. At this point in time, the DOT-HAR would like to undertake those improvements which will be necessary within the next ten (10) years. These projects, as shown on Figure 1, are located on the harbor's east side and include the:

- Pier 1 extension (Pier 1D);
- Pier 1 comfort stations and sewer line (exempt project);
- Pier 1 waterline;
- Pier 3 expansion (including dredging between Piers 1 and 2);
- new Pier 4, which may be constructed in phases as funds becomes available; and
- structural pavement, access bridge, and utilities at "Puunene Yard."

¹ The Kahului Commercial Harbor 2025 Master Plan is incorporated by reference.



DRAFT ENVIRONMENTAL ASSESSMENT
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS
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PROPOSED IMPROVEMENTS
PREFERRED ALTERNATIVE
FIGURE 1

JANUARY, 2005

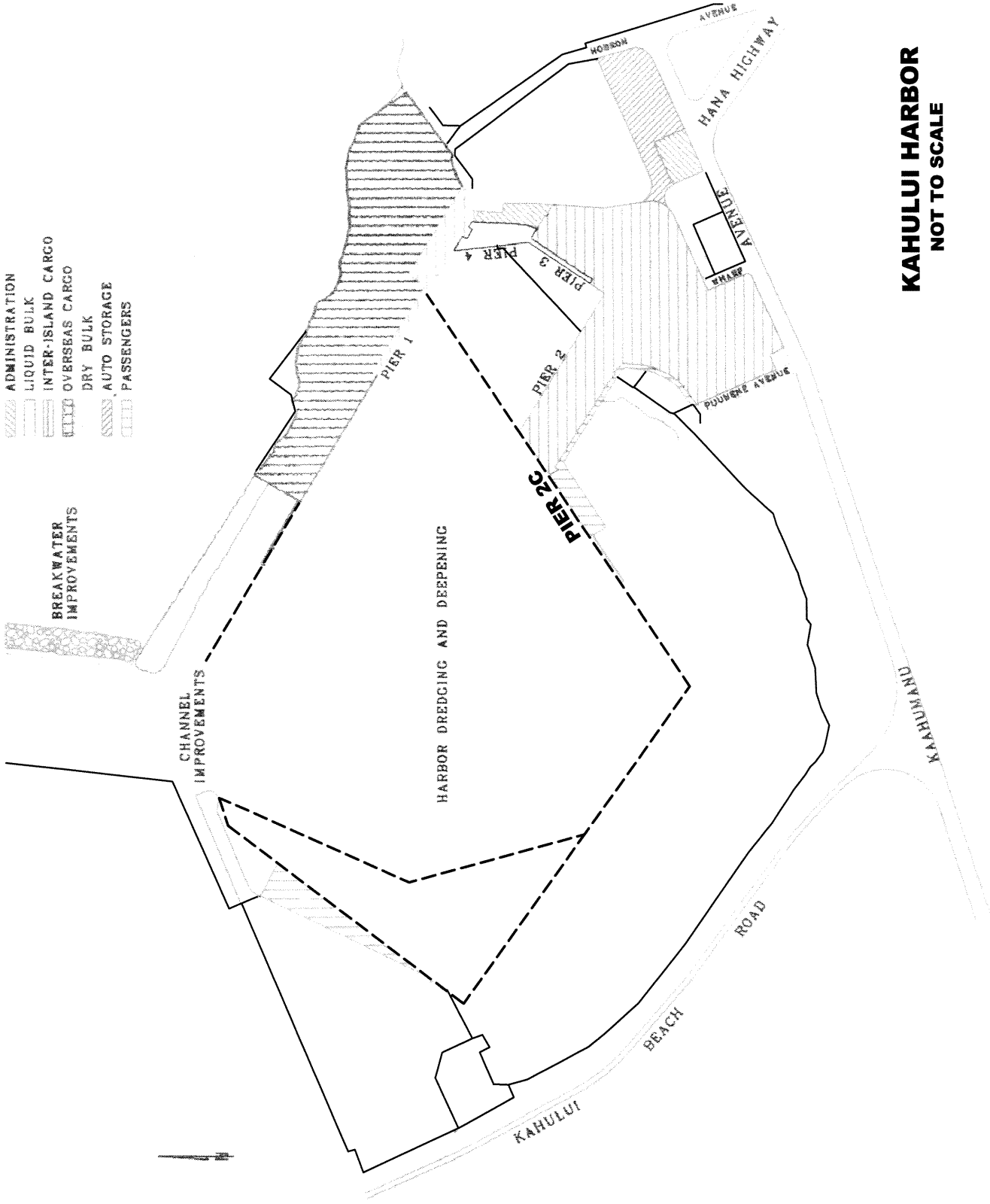
In considering the projects necessary within the short-term, this EA considers the cumulative impacts of those projects. “Cumulative impacts” are defined in HAR 11-200-2 as environmental impacts resulting from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. In determining what is reasonably foreseeable, the DOT has determined that the following intermediate- and long-range projects identified in the 2025 Master Plan are not reasonably foreseeable and hence are not covered by this EA:

- construction of the Pier 2C;
- construction of a new Pier 5 and associated dredging for the berth; and
- harbor turning basin dredging and deepening of the existing channel, construction of improvements for the breakwater, and improvements to the main channel.

The entire 2025 Master Plan is shown on Figure 2. These projects are not reasonably foreseeable and are not covered by this EA for the following reasons.

- Pier 2C: The construction of Pier 2C will not be completed under this Environmental Assessment in response to comments from the canoe clubs and paddlers that use Kahului Commercial Harbor for practices and regattas.
- Pier 5: The Pier 5 improvements, breakwater and channel improvements are on indefinite hold. The proposed Pier 5 improvements will not be constructed within the planning period due to the DOT-HAR budgetary constraints and the results of the U.S. Army Corps of Engineers’ *Wave Climate and Wave Response, 2025 Plan, Kahului, Harbor, 2002*. The results of this wave study indicate that the use of Pier 5 by large vessels will create operational problems, and the Pier 5 improvements will encounter significant wave surge conditions.
- Turning basin dredging and deepening, construction of improvements for the breakwater, and improvements to the main channel: These projects would have been completed by the U.S. Army Corps of Engineers but will not be completed at this time as these projects are associated with the construction of Pier 5.

If and when these intermediate- and long-range projects become ripe for decision-making, an environmental analysis will be completed to determine if any environmental documentation will be needed in accordance with State of Hawaii and NEPA rules and regulations.



KAHLULUI HARBOR
NOT TO SCALE

Reference: Kahului Commercial
Harbor 2025 Master Plan
September 2000

DRAFT ENVIRONMENTAL ASSESSMENT
KAHLULUI COMMERCIAL HARBOR IMPROVEMENTS

MASTER PLAN
FIGURE 2

Prepared by : Edward K. Noda and Associates, Inc.

JANUARY, 2005

In the preparation of this EA, the comments from the pre-assessment consultation, the minutes of the public meetings during the 2025 Master Plan process, and comments on previous Environmental Assessments were reviewed. In addition, information was gathered from field visits, meetings with DOT-HAR staff, and interviews with various community members and organizations. The list of agencies, organizations and individuals which participated in the 2025 Master Plan process and in the preconsultation process are listed in Section 8.1. Upon receipt of comments from the canoe associations the DOT-HAR held several meetings with the canoe associations regarding the proposed harbor improvements, in late 2004. The written comments received during the pre-assessment consultation are included in Appendix A, and the written comments received on the Draft Environmental Assessment and the corresponding response letters are included in Appendix E.

1.2 INCORPORATED PROJECTS

The following projects have been recently completed or are reasonably foreseeable at Kahului Harbor during this Environmental Assessment, and their impacts have been analyzed in other environmental documents. These projects are included to assess the cumulative impacts of the proposed project and these projects.

1.2.1 Sewerline and comfort stations

The sewerline and comfort stations project which is intended to allow for the closure of the Harbor's cesspools, were included in the Draft Environmental Assessment. This project is required to meet a Federal ban on cesspools. In reviewing this project DOT-HAR determined that it is in an exempt class (Exemption Class 2). Therefore, the DOT-HAR decided to grant an exemption under HRS 343 and HAR 11-200. A copy of the exemption is included in Appendix F.

1.2.2 Mooring Dolphin Pier 1C.

The Pier 1C Mooring Dolphin is an improvement project which is covered under a separate Environmental Assessment, dated March 2004. The project involved the construction of a mooring dolphin and catwalk superstructure connecting to Pier 1C. The project proponent is Matson Navigation Company. The mooring dolphin and catwalk superstructure will be used to provide sufficient mooring capability to extend the useful area of Pier 1C for container ships and other large vessels. The mooring will provide much-needed space and meet safety concerns for the proper securing of moored vessels. The findings and determination of the environmental review process for this project indicated that there would be no significant adverse impacts to the environment and a Finding of No Significant Impact was issued.

1.2.3 Hawaii Superferry Operations

The DOT-HAR has reviewed the requirements and needs associated with harbor access and use of pier facilities by the Hawaii Superferry Inc., and based on the review and discussions with the Hawaii Superferry regarding the use of the harbor facilities, the DOT-HAR granted an exemption on February 23, 2005. A copy of the exemption is included in Appendix F. The exemption allows the Hawaii Superferry operation to utilize a barge (floating platform) and ramp system to provide a transition platform between the Hawaii Superferry vessel and the pier. The barge will be configured with a boarding ramp to provide a connection between the vessel and the barge; and a separate ramp between the barge and pier for safe vehicle loading and off-loading.

The Hawaii Superferry is a private entity which plans to run a “fast-ferry” operation between the major Hawaiian Islands. The vessels have a rated service speed of 35 knots or approximately 40 miles per hour. The Public Utilities Commission (PUC) has approved Hawaii Superferry’s Plan to start service in early 2007. This approved plan is to service Hawaii, Kauai, Maui and Oahu, with one stop each per day. The future plans are to increase service to each port, however, no schedule for this increase has been provided. The planned arrival time for Hawaii Superferry at Kahului Harbor is 11:00 a.m with a departure time at 12:00 noon. The vessel has a maximum load of 900 passengers. The number of vehicles it carries depends on the types and sizes of vehicles to be boarded, for example, it has a maximum capacity of 282 typical passenger cars, or 20 large trucks/buses and 65 cars. Larger vehicles can be accommodated but it will further reduce the number of vehicles that can be loaded onto the vessel. Currently, the Hawaii Superferry anticipates an average number of vehicles to be carried to be in the range of 100 to 115 and would be a mix of cars and trucks/buses.

Minor improvements on or adjacent to the pier associated with the Hawaii Superferry operation may include, but are not limited to, utility service (water, electricity, lighting, etc.), security fencing, pavement striping, the placement of boarding gangway ramps, and the installation of tents at inspection points or customer waiting areas. These minor improvements are limited in scale and scope, and represent the type of changes introduced from time-to-time at various harbor areas to accommodate operational activities at the harbor.

The comments received during the Draft Environmental Assessment phase of this process on the Hawaii Superferry included the potential concern on increasing non-native (alien) species introduction to Maui, wastewater disposal and the potential impact on the whales. The Hawaii Superferry’s use of Kahului Harbor is included in this document to analyze the cumulative impacts with the proposed improvements, and is not part of the

proposed project. As part of the Hawaii Superferry operational plan, they have been working with the State of Hawaii, Department of Agriculture on operational procedures which will minimize the potential to spread non-native species through its operations. The Hawaii Superferry has developed a Whale Avoidance Policy which was approved on May 12, 2005 by the Hawaiian Islands Humpback Whale National Marine Sanctuary Advisory Council (Whale SAC) and is presented in Appendix F.

1.3 SUMMARY OF MAJOR IMPACTS AND MITIGATION

The proposed improvements will not have significant impacts on the environment. However, mitigation measures are proposed during construction that will lessen the construction-related impacts. These measures include:

- silt curtains to maintain water quality outside of the construction area;
- Best Management Practices, to the maximum extent practical, to minimize runoff into the ocean and connecting tributaries;
- use of Glassphalt, if available, in conformance with Section 103D-407, HRS;
- to the extent practical, all fabrication will be performed on fast land;
- incorporation of sustainable building guidelines, as practical, including the use of water saving and energy conservation devices, and the use of xerophagic native plants;
- fugitive dust controls pursuant to Department of Health Administrative Rules;
- should human remains, prehistoric or historic artifacts, or cultural features be encountered in the course of excavations during construction, the construction works would be halted in that area and the State of Hawaii, Historic Preservation Division (SHPD)-Maui office notified;
- in the properties that form TMK 3-7-08:1, 3, inland portions of 4, and 6 inland of Pier 2 on the west side of Wharf Street, a qualified archaeological monitor should be present during all ground altering activities which will impact below the fill deposits;
- continue tenant-user meetings and communiques of activities in the Harbor; and
- testing and appropriate disposal of the dredged material.

1.4 LIST OF PERMITS AND APPROVALS

The DOT-HAR is exempt from all County permitting requirements, including the Special Management Area permit, pursuant to the Hawaii Revised Statutes Chapter 266. The contractor must submit a plan for construction waste disposal and recycling. Other non-County permits include the following:

- Section 10 permit, Section 401 permit and/or Section 404 permit from the U.S. Army Corps of Engineers and State of Hawaii, Department of Health, Clean Water Branch, as appropriate;
- Coastal Zone Management Federal Consistency Certification issued by the State of Hawaii, Office of Planning as part of the U.S. Army Corps of Engineers permit; and
- Notice of Intents (NOI) for the NPDES general permit must be submitted to the Department of Health, Clean Water Branch, 30 days before the commencement of activities involving stormwater discharge from the construction site, dewatering effluent discharge, and/or discharge of hydrotesting water. Amendments to HAR, Chapter 11-55, requires a copy of the NOI or NPDES permit application to be submitted to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD).

SECTION 2.0

DESCRIPTION OF PROPERTY

2.1 LOCATION

The Kahului Commercial Harbor lies on Kahului Bay, and is located on the northern shore of the isthmus connecting East and West Maui (see Figure 3). The Harbor serves as Maui's only commercial harbor and is bordered by Maui's largest town, Kahului, the commercial center of the island. The Harbor consists of two distinct operational areas: the east area, that serves as the main commercial operational area, and the west area that serves as a recreational and stockpile area. The east area is approximately bordered by the east breakwater, Hobron Avenue, Kaahumanu Avenue and Puunene Avenue. The west area is bordered by the west breakwater and Kahului Beach Road (See Figure 4).

Kahului Commercial Harbor is the busiest, deep-draft, neighbor island, commercial harbor, and is one of ten (10) State-managed commercial harbors in Hawaii. The DOT-HAR is responsible for the control, management, use and regulation of commercial harbors and their improvement as stated under Chapter 266, HRS.

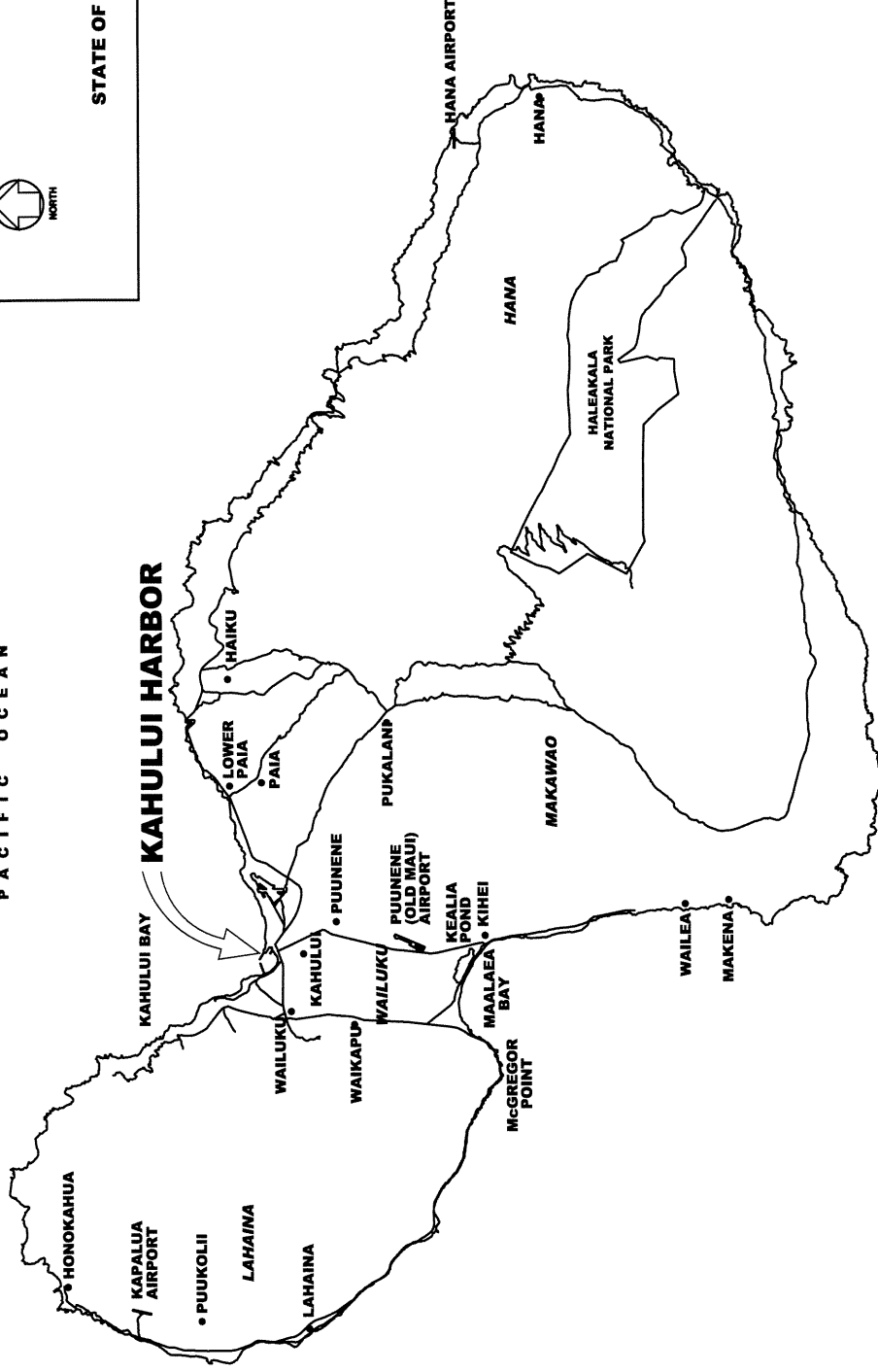
2.2 HISTORY

Early development at Kahului Bay started in 1863 with the construction of the first western building, a warehouse near the beach. In 1879, to facilitate the loading and unloading of goods and passengers, the first small landing was constructed in Kahului Bay. After the Bubonic Plague of 1900, the rebuilding of Kahului town coincided with the evolution of Kahului Bay into a full-scale commercial harbor. The development of the Harbor began in earnest under the leadership of Henry Baldwin. During this time, the railroad and harbor depended on each other to provide service to the merchants and the sugar cane plantations. By 1910, the harbor had an 1,800-foot breakwater on the east side, a 40-foot tall lighthouse, a new 200-foot pile-and-timber pier, "Claudine Wharf," and the turning basin had been dredged.

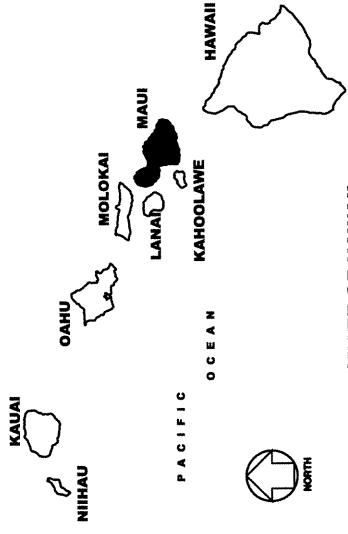
The development of Kahului Harbor has continued to meet Maui's maritime demand. Pier 1 was initially 500 feet in length and was constructed between 1921 and 1924, along with a pier shed that was 374 feet long. Subsequent construction lengthened Pier 1 to 929 feet. Currently (2003), Pier 1C has been constructed, and Pier 1 increased to a length of 1,658 feet. The first 627 feet of Pier 2 was constructed in 1927 at the location of the old "Claudine Wharf," and extended in 1929 to 894 feet.



PACIFIC OCEAN



**ISLAND OF MAUI
NOT TO SCALE**



STATE OF HAWAII

LOCATION MAP
FIGURE 3
DRAFT ENVIRONMENTAL ASSESSMENT
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

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JANUARY, 2005



NOT TO SCALE

AERIAL PHOTO 09-2003
AIR SURVEY HAWAII

DRAFT ENVIRONMENTAL ASSESSMENT
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

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VICINITY MAP

FIGURE 4

JANUARY, 2005

By the 1930s, the turning basin was dredged to a depth of 35 feet with a maximum width of 1,455 feet. Currently, the harbor basin is 2,050 feet wide and 2,400 feet long with a depth of 35 feet. The entrance channel is 660 feet wide and has a depth of 40 feet. In 1931, the west breakwater was completed. A detailed description of the history of Kahului and the Harbor is provided in Appendix B.

To evaluate the existing and future needs at the harbor and to achieve its goals, the DOT-HAR undertook the “*2010 Master Plan for Kahului Harbor.*” This Master Plan was reviewed and updated in November 1994, and published as the “*Master Plan Update for Kahului Harbor.*” Typically, the DOT-HAR targets a five-year schedule in reviewing and updating its Master Plans. Therefore, the current 2025 Master Plan serves as another update to the Master Plan, and also provides a long-range guide for the development of Kahului Commercial Harbor.

2.3 LAND OWNERSHIP

The land and water area which comprises Kahului Commercial Harbor is owned by the State of Hawaii. The control and management of the land and water have been given to the DOT-HAR by various Governor’s Executive Orders.

2.4 EXISTING USES AND FACILITIES

The east side of the Harbor currently encompasses approximately 50 acres of land. It is the operational portion of the Harbor, including three major berthing structures with storage areas, warehouses, harbor offices, and tenant buildings. All of the commercial maritime activities occur on the east side. The water depths range from 18 feet (near Pier 3) to a project depth of 35 feet in the turning basin, except for the area between Pier 1 and Pier 3 which has depths less than 18 feet. Figure 5 shows the existing facilities on the east side.

There are three major berthing² structures, Pier 1, Pier 2 and Pier 3. Pier 1 consists of a 1,658-foot long pier, including the recent 300-foot long extension known as Pier 1C, and a shed which is approximately 374 feet long and with a footprint of approximately 43,975 square feet. Pier 1 is the main pier for the large container vessels, such as those used by Matson Navigation

² The berths are planned and designed for common use to the extent possible and as stated in the Kahului Commercial Harbor 2025 Master Plan, “*Berthing within the State’s commercial harbors is generally not permanently assigned. Vessels entering the port are directed to their berths according to the shoreside facilities required and the availability of such berths.*”

Company for their overseas container operations, and by both domestic and foreign cruise ship operations. Other users of Pier 1 include Maui Electric Company's coal ship, Maui Land and Pineapple Company's tin plate ship, and Matson's sugar/molasses ship (the Moku Pahu). With the completion of the current extension, two ships will be permitted to berth simultaneously at Pier 1. There is a 15.9 acre paved container storage area adjacent to Pier 1.

Pier 2, 894-feet long, is used primarily by Young Brothers for their interisland cargo business. Other users include Horizon Lines overseas cargo operation and the Gas Company's bulk cargo shipments.

Pier 3, 500-feet long, is used by ships which transport liquid and dry bulk cargo. Primary liquid bulk users of Pier 3 are the petroleum companies, such as Tesoro and Chevron, and Maui Electric Company. The major dry bulk users include Hawaiian Cement and Ameron Hawaii.

Other uses of the Harbor include circulation roadways, DOT-HAR office, a maintenance building and a spill response boat house and storage yards.

Existing maritime demand for Kahului Harbor is shown on Table 2-1, with the schedule changes expected in 2005 shown on Table 2-2. The cargo tonnage passing through Kahului Harbor increased to 1,818,433 short tons into Maui, and 761,889 short tons exported during the 2001 fiscal year. During fiscal year 2002, the harbor accommodated 150,119 cruise ship passengers and 2,475,090 short tons of cargo, with 1,762,864 tons imported into Maui and 712,226 tons exported from Maui. In 2003, the total cargo volume increased to 2,544,311 short tons, an increase of 2.5 percent from 2002, but still less than the 2001 volume.

2.5 SURROUNDING LAND USES

The Harbor is located in an urbanized, industrial setting and surrounded by the towns of Kahului and Wailuku, the centers of Maui's commerce, light industry, and government. In addition, approximately 37,600 residents live in Kahului and Wailuku, approximately 37 percent of the total population on Maui³.

³ U.S. Census, 2000, State of Hawaii Data Book 2001, Department of Business, Economic Development and Tourism.

TABLE 2-1
SHIP SCHEDULE AND BERTH ASSIGNMENTS FOR KAHULUI HARBOR
 (July 2003 to June 2004)

PIER	OPERATION	SHIP OVERALL LENGTH (feet)	NUMBER OF DAYS PER CALL	NUMBER OF CALLS PER YEAR
1A	Fuel	230-328	1.0	62
1A	Coal	557	4.0	2
1A	Sugar	685	1.5	7
1A/1B	Foreign Cruise	554-965	0.5	49
1A/1B	Domestic Cruise	853	2.0	1
1B	Tin Plate	494-555	1.0	2
1B/1C	Overseas Container RO/RO	790-826	0.5	27
1C	General Freight	140-340	1.0	6
1C	Sand	242	0.5	19
1C	Overseas Container	350	0.5	109
1C	Overseas Container RO/RO	345	0.5	52
1	Tugboats	75-150	0.5	246
2A	Interisland Container	226-310	0.5	204
2A	Cement	184-333	0.5	32
2A	Propane	230-384	0.5	19
2B	Fertilizer	330	1.5	1
2B	General Freight	286	1.0	16
2	Tugboats	80-134	0.5	332
3	Fuel	230-328	0.5	82
3	Scrapmetal	340	3.0	2
3	Sand	242	0.5	42
3	Fertilizer	330	1.0	2
3	General Freight	250-350	0.5	13
3	Tugboats	75-134	0.5	124

TABLE 2-2
CHANGES IN SHIP SCHEDULE AND BERTH ASSIGNMENTS FOR 2005
(As of December 2004)

PIER	OPERATION	SHIP OVERALL LENGTH (feet)	NUMBER OF DAYS PER CALL	NUMBER OF CALLS PER YEAR
1A/1B	Foreign Cruise	554-960	0.5	22
1A/1B	Domestic Cruise	853	1.5	52
1B/1C	Overseas Container RO/RO	790-826	0.5	52
1C	Pasha (March 2005)	580	unknown at this time	27
2	Young Brothers	226-310	0.5	340
2	Hawaii Superferry (2007)	340	0.05	365
3	Fuel	230 -321 (Sause Brothers)	unknown at this time	27

Bordering the Harbor on the east is the Maui Electric Company power plant, various petroleum storage facilities, and commercial ventures. The main access through this area is Hobron Avenue. To the south and along Kaahumanu Avenue, there are commercial facilities, including two large shopping complexes, Maui Mall and the Kaahumanu Shopping Center. Access to the Harbor from Kaahumanu Avenue is through Wharf Street. Land use to the west of Puunene Avenue include various commercial activities, canoe *hale* and hotels. In addition, Hoaloha Beach, which is partially located on DOT-HAR property, neighbors Pier 2 to the west and is used for various recreational activities. Along Kahului Beach Road and south of the turning basin is the Harbor Lights residential condominium.

The State Land Use designations for the area immediately surrounding the Harbor is Urban. The Kanaha Pond Wildlife Sanctuary is a Conservation area and is about ½ mile east of the Harbor. The Harbor is within the Wailuku-Kahului Community Plan.

SECTION 3.0 DESCRIPTION OF THE PROPOSED PROJECT

3.1 BACKGROUND

The “*Kahului Commercial Harbor 2025 Master Plan*,” provides a guide to the development at the Harbor based on the knowledge and experience of the users of the facilities, their anticipation of future trends, and the input of other non-commercial users of the Harbor itself. Also, pursuant to Hawaii Administrative Rules 19-41-4, *Delegation of authority*. “*The chief, harbors division, district managers, and the harbor masters are the designated representatives of the department and of its director and as such are delegated full authority to administer the rules of the department and to establish procedures necessary for the efficient and safe operation of the harbors within their respective jurisdictions.*”

3.2 PURPOSE AND NEED

The proposed projects will ensure efficient, safe, accessible and economical harbor operations to meet existing and forecast maritime demands. The projects recommended by the 2025 Master Plan were planned to meet the following objectives:

- plan the proper development of Kahului Commercial Harbor⁴, thereby facilitating maritime shipments of the essential commodities required by Maui County;
- optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner;
- provide terminals, other harbor resources, and access to these facilities in locations within Kahului Bay and other locations in a manner that best relates to and serves Maui in an efficient, safe and secure manner; and

⁴ As defined in the Hawaii Revised Statutes Chapter 266-1, a commercial harbor “*means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.*” Similarly, under Hawaii Administrative Rule 19-41-2 a State commercial harbor “*means a harbor under the jurisdiction of the department which has been designated for trade and other commercial activity....*”

- minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

3.3 FORECAST

The forecast analysis in the 2025 Master Plan is based on a number of statistical studies which establishes a method of quantifying the requirements for future cargo facilities. The two facilities which have storage area requirement projections are the i) container yards; and ii) berthing space. High correlations between the annual weight of all cargo shipped to and from Maui and the per-capita Gross State Product were established and used to project the 2025 estimates of cargo tonnage.

The analysis of the berthing space requirements was based on the overall ship length and the frequency of calls. Table 3-1 presents the forecast ship arrivals for 2025 and overall ship length. As of January 1, 2004, cruise ship bookings for 2004 listed 89 visits by various ships ranging from 592 feet to 963 feet in length. In the Master Plan, the 2025 berthing analysis⁵ results were as follows.

- Sugar, coal, tinplate, sand, lumber, scrap metal, liquid fertilizer and overseas container operations are assigned to Pier 1. These combined operations result in a 2025 berth utilization factor of 0.62.
- Piers 2A and 2B are dominated by inter-island cargo and liquefied petroleum gas (propane) operations with a 2025 berthing utilization factor of 0.74.
- Pier 2C (which has been removed from consideration) would have served as an overflow pier, and would have a 2025 berth utilization factor of 0.71.
- Pier 3 would be used for cement and petroleum product shipments would have a 2025 berth utilization factor of 1.0.

⁵ The berthing analysis uses assumptions regarding where vessels will likely berth, which may not reflect actual conditions, as schedules and operational issues may move vessels to different berths. As stated earlier, the berths are planned and designed as common use berths to the extent possible. In the berthing analysis, a berth utilization factor of 0.5 (for unscheduled calls) and 0.6 (for scheduled calls) is considers the berth to be fully utilized (the berth is approximately filled 50% of the time). The 0.5 berth utilization factor accounts for the difficulty for vessels to maintain an accurate schedule, due to rough seas, delays at other ports, etc.

- Pier 4 would be an alternate berth for liquid bulk cargo and other users which would have a 2025 berth utilization factor of 0.95.
- Pier 5 (which is on indefinite hold as explained above) was planned to be used for cruise ships and had a projected 2025 berth utilization factor of 0.82.

**TABLE 3-1
FORECAST 2025 SHIP SCHEDULE FOR KAHULUI HARBOR**

OPERATION	SHIP OVERALL LENGTH (feet)	NUMBER OF DAYS PER CALL	NUMBER OF CALLS PER YEAR
Coal	557	3.0	26
Sugar	685	3.0	52
Foreign Cruise	950 ^a	1.5	27
Domestic Cruise	950 ^a	1.5	260
Tin Plate	557	1.0	16
Lumber	242	0.5	26
Fertilizer	340	1.0	11
Sand	250	0.5	68
Overseas Container	350	0.5	344
Overseas Container RO/RO	350	0.5	214
Interisland Cargo	350	0.5	526
Cement	184	0.5	78
Propane	230	0.5	78
Scrap Metal	250	1.0	11
Petroleum	340	0.5	365
Petroleum	340	1.0	26
Inter-island Ferry ^(b)	350	1.0	365
Various tugs	73 to 80	various	1,522

a. Note: as of 2002, the overall ship length of the largest cruise ship berthing at Kahului was 965 feet.

b. The ferry considered in the Master Plan is a generic interisland ferry. The "Superferry" is a specific entity which has plans to start service in 2007.

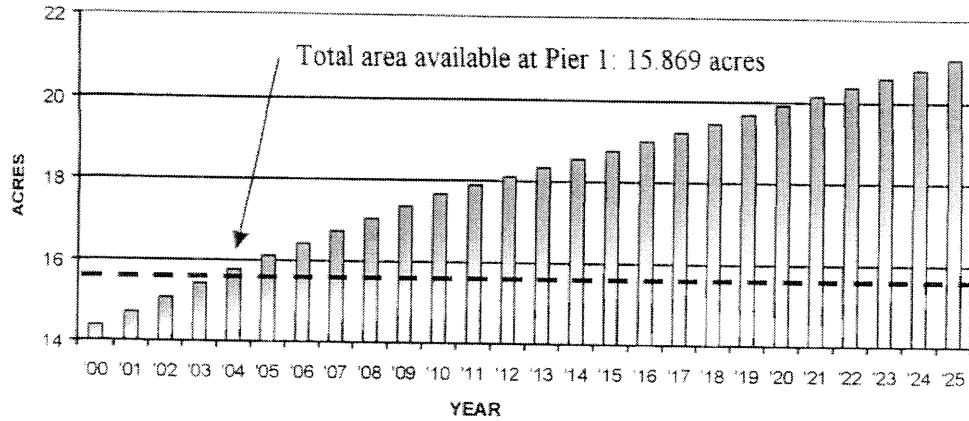
It should be noted that although assumptions were made as to the use of the piers by specific types of vessels, the berths at Kahului Commercial Harbor and throughout the state are generally common use. Therefore, the piers are planned and designed to accommodate various vessel types, to the extent practical, to provide the maximum flexibility to the Harbor Master in meeting the maritime demand.

However, due to the revisions in the Master Plan, a new berthing analysis was performed with the following berthing assumptions.

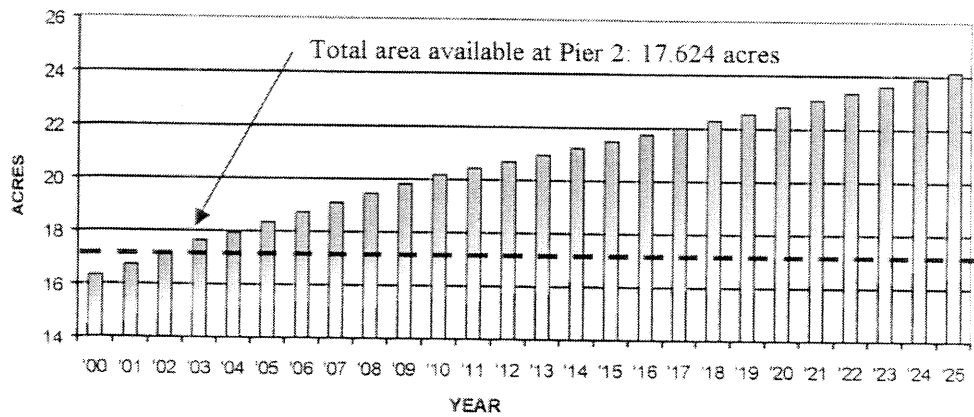
- Sugar, coal, tinplate, sand, lumber, scrap metal, liquid fertilizer, cruise, and overseas container operations are assigned to Pier 1. These combined operations result in a 2025 berth utilization factor of 1.19.
- Pier 2 is dominated by inter-island cargo and liquefied petroleum gas (propane) operations. In addition, Pier 2 will be used for vessels awaiting permanent berths, tugs and other uses. The analysis results in a 2025 berthing utilization factor of 1.01.
- Pier 3 would be used for cement and petroleum product shipments which results in a 2025 berth utilization factor of 1.00.
- Pier 4 would be for berthing liquid bulk cargo vessels, other cargo vessels, inter/intra-island ferries, tugs, and other users. The analysis results show a 2025 berth utilization factor of 2.07.

In addition, the Hawaii Administrative Rules, Section 18-42-21, *Priorities for berths and moorings*, states the following “*Designated facilities for small craft and smaller commercial vessels in other state commercial harbors. A) First priority: Public Utilities Commission licensed operators. B) Second priority: commercial fishing boats. C) Third priority: charter or cruise boats. D) Fourth priority: other commercial boats. E) Fifth priority: recreational small craft.*”

For the container yards, the analysis was based on a standardized container size of twenty feet in length and is reported in Twenty-Foot-Equivalent-Units (TEU). Therefore, a twenty-foot long container would be represented as one TEU, a twenty-four foot container would be equivalent to 1.2 TEU, a forty-foot container would be equivalent to 2 TEUs, and so on. Therefore, the amount of TEUs can be translated to the projected storage volumes and areas. Currently, the total container storage facility at Pier 1 is 15.9 acres and at Pier 2 is 17.6 acres. The storage yard projections are shown on the following graphs. Also, additional overflow space of 3.7 acres is located at the corner of Hobron Avenue and Kaahumanu Avenue, and is usually used for automobile storage. The spatial requirements for the projected cargo volumes were determined by the application of commonly used port planning formulae.



Pier 1 Overseas Cargo Yard Acreage Requirement Projections



Pier 2 Inter-Island Cargo Yard Acreage Requirement Projections

The forecast overseas cargo volumes require container yard space of 21 acres by the year 2025, and the projected interisland cargo volumes will require over 24 acres by 2025. Based on the projected cargo volumes and the existing size of the cargo yards, the Pier 1 container yard will be at capacity by year 2005 and the Pier 2 container yard is near capacity. The additional container capacity provided by the overflow space would delay the need for additional container storage space until year 2008.

3.4 PROPOSED PROJECT DESCRIPTION

The proposed project only includes those short-term projects recommended in the DOT-HAR Kahului Commercial Harbor 2025 Master Plan. The projects will maintain Harbor operations based on the existing and forecast maritime demands for cargo and passengers. Other projects contained in the 2025 Master Plan are not reasonably foreseeable due to their long-range nature and other

factors, and as a result these long-range projects are not yet ripe for decision making. Therefore, in the future as these projects become ripe for decision making, environmental analyses will be performed prior to design in order to determine what, if any, additional environmental documentation is required. In addition, the components of the Master Plan are independent actions and do not represent a larger undertaking or a commitment to a larger project. Also, the individual projects are not a precedent to a larger project and the individual actions are not similar.

As stated earlier, the proposed short-term projects include the:

- Pier 1 extension (Pier 1D);
- Pier 1 comfort stations and sewer line (exempt project);
- Pier 1 waterline;
- Pier 3 expansion, including the dredging between Piers 1 and 2;
- new Pier 4, may be constructed in phases as funds become available; and
- structural pavement, access bridge and utilities at “Puunene Yard.”

A detailed description of the project alternatives is provided in the following section. All of the developments will use Glassphalt paving, if available, in conformance with Section 103D-407, HRS. In addition, as practical, the design will incorporate sustainable building guidelines, including low-energy fixtures, water saving devices and landscaping with xerophagic native plants.

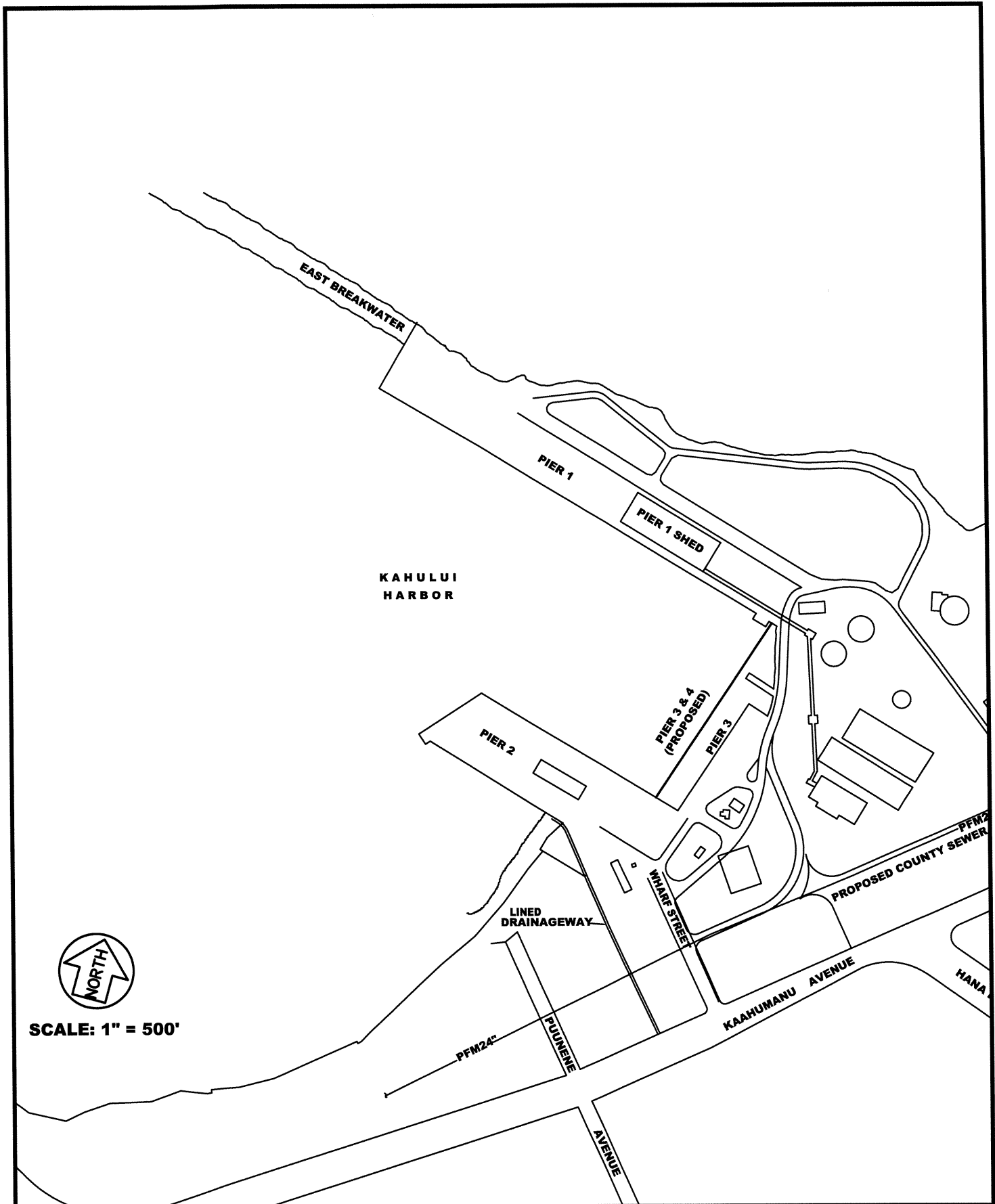
3.5 ALTERNATIVES

Pier 1D. **Preferred Alternative.** This pier would be an extension of Pier 1 toward the west and consists of a series of mooring/breasting dolphins which would stretch about 500 feet from the existing end of Pier 1C. The dolphins would be spaced at approximately 100 feet intervals with catwalks/ramps connecting each dolphin. Typically for the envisioned vessel displacement, the dolphin consists of a mooring bollard supported by a grouping of concrete piles. The catwalks/ramps would be about six feet wide and would provide access to the mooring bollards by small tractors and personnel. It is envisioned that the catwalks would be pile supported between the mooring/breasting dolphins and a “typical” layout for the catwalk and breasting dolphin is shown in Figure 6.

Piers 3 and 4. **Linear Alternative (including Pier 3 expansion).** This alternative would provide approximately 800 feet of linear pier area by expanding the Pier 3 apron seaward by about 60 feet and constructing a new linear Pier 4 (see Figure 7). In addition, new fuel lines for off-loading of bulk liquid and water lines for fire-fighting will be installed. Furthermore, the spacing of the fuel ports should be optimized for the existing and future vessels. It should be noted that the crane reach on the existing fuel barge is about 5 feet. The extension of Pier 3 and the new Pier 4 would be supported on piles and/or bulkheads with fill. Currently, typical pier design would have pile spacings from 8 to 12 feet in the longitudinal direction and from 20 to 25 feet in the lateral direction. The pile-spacing will be determined in the design process and is dependent on various factors, such as but not limited to, soil conditions, pier loads and pile size. The design of Pier 4 would provide for off-loading of bulk liquids, fuel ports, intra/inter-island ferries, the roll-on/roll-off needs of vessels that may use the pier, tugs and other users. In addition to the berthing structures, minor improvements and facilities including, but not limited to, ramps, bollards, utilities, pavement striping, lighting, will be constructed to allow for the use of the berth by the various users. Typically, rip-rap protection will be laid under the pier to provide erosion protection. Due to funding constraints, the initial construction phase would be smaller than the proposed Pier 4 development described above, and may utilize various mooring components such as mooring/breasting dolphins, linear pier, finger pier or other types of moorings between the existing Pier 1 and Pier 3.

Pier 4. **Preferred Alternative.** This alternative recommended in the 2025 Master Plan would provide a new pier structure from the existing north corner of Pier 3 to Pier 1 at about a 30-degree angle (see Figure 1). Currently, similar piers are supported on piles and/or with bulkheads with fill. If pile supports are used, it would have typical pile spacings of about 8 to 12 feet in the longitudinal direction and approximately 20 to 25 feet in the lateral direction. It will include rip-rap under the pier to provide erosion protection. As previously stated, the pile-spacing will be determined in the design process and is dependent on various factors, such as but not limited to, soil conditions, pier loads and pile size. The elevation of the new pier would match the existing Pier 3 elevation. The design of Pier 4 would provide for off-loading of bulk liquids, fuel ports, the roll-on/roll-off needs of vessels, intra/inter-island ferries, tugs and other users. In addition to the berthing structures, minor improvements and facilities including, but not limited to, ramps, bollards, utilities, pavement striping, lighting, will be constructed to allow for the use of the berth by the various users.

Pier 4 and associated improvements may be constructed in phases with the ultimate configuration to be either the Linear Pier 3 and 4 alternative or the Preferred



**PROPOSED IMPROVEMENTS
OTHER ALTERNATIVES**

**DRAFT ENVIRONMENTAL ASSESSMENT
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS**

FIGURE 7

Prepared by : Edward K. Noda and Associates, Inc.

JANUARY, 2005

Pier 4 alternative. Similarly, the design for this Pier includes minor improvements to facilitate the loading and unloading of goods, cargo and passengers, such as fuel ports, and roll-on/roll-off needs for vessels which may use the pier. Due to funding constraints, the initial construction phase would be smaller than the proposed Pier 4 development described above, and may utilize various mooring components such as mooring/breasting dolphins, linear pier, finger pier or other types of moorings between the existing Pier 1 and Pier 3. As with other Kahului Commercial Harbor piers, the pier will be constructed on bulkheads with fill, and/or on piles depending on cost and substrate type. As part of the construction, the area fronting Piers 3 and 4 will be dredged to a depth of 30 to 35 feet⁶. The area to be dredged is outside of the “Federal project limits.” The dredge material may be used as fill material for the construction of Pier 4, if suitable.

Pier 1 Comfort Stations, Waterline and Sewer Line.

Preferred Alternative. This alternative would expand and renovate one of the Pier 1 shed comfort stations, construct an upgraded waterline from Ala Luina Street to the end of Pier 1, and construct a sewer line to connect both Pier 1 comfort stations to the existing County sewer system on Wharf Street. A schematic of the waterline and sewer line alignment is shown on Figure 1. The exact location and depth of the new sewer line would be determined during the design. Currently, the existing comfort stations are connected to cesspools. In accordance with State of Hawaii, Department of Health (DOH) rules and the U.S. Environmental Protection Agency (EPA) regulations, all existing large capacity cesspools, defined as those having the capacity to serve 20 or more persons per day, must be phased out by April 5, 2005 (EPA Underground Injection Control Class V Rule (promulgated on December 7, 1999)).

Puunene Storage Yard (Structural pavement, access bridge and utilities at “Puunene Yard”)

Preferred Alternative. This alternative includes the demolition of the existing pavement and construction of structural pavement, drainage infrastructure, fire infrastructure, and a new access bridge connecting the “Puunene Yard” to Pier 2. A portion of the pavement, about 200 feet on the north end of the Yard and the bridge, would be designed for high-capacity loads for the container lifts, such as the Hyster 920 or Cat 925.

⁶ Under the Oil Pollution Act of 1990 all bulk carriers must use double hulled barges by 2015. The current depths at Pier 3 and the proposed Pier 4 will not accommodate these double-hulled vessels. Currently, the Sause Brothers doubled-hulled petroleum barge (“Hilo Bay”) has a maximum draft of 29 feet but usually operates with a draft of 24 feet.

The pavement for the remaining portion of the Yard would be designed to store containers on chassis and automobiles. The infrastructure improvements would include drainage lines, fire protection lines and electrical ducts. A bridge would be constructed over the existing open drainage way to allow transport of vehicles and persons from Pier 2 to the yard.

3.5.1 PROJECT FUNDING

The proposed project will be financed solely with State of Hawaii funds, either through Harbor Special Funds or from the General Fund. Typically, the DOT-Harbors Division funds their operating and capital improvement expenses through the Harbors Special Fund, which is derived from fees collected from the commercial harbor users. At this point in time, the cost to construct the above alternatives for the proposed project are shown on Table 3-2.

**TABLE 3-2
ESTIMATED COST OF PROPOSED IMPROVEMENTS**

PROJECT ALTERNATIVE	ESTIMATED COST
Pier 1D	\$ 1,000,000
Pier 3 and 4 Linear	\$ 39,000,000
Pier 4 Angled	\$ 26,000,000
Pier 1 Comfort Station, Waterline, Sewerline	\$ 3,000,000
Puunene Storage Yard Improvements	\$ 4,000,000

3.6 SECOND KAHULUI HARBOR ALTERNATIVE

The U.S. Army Corps of Engineers performed a study for a second commercial harbor facility on Maui in 1995 titled the “*Maui Second Commercial Harbor, Navigation Study*.” The study identified six alternatives and concluded that the second harbor would not have an adequate benefit-to-cost (B/C) ratio to be justified. In addition, the construction of a second harbor will take decades to complete and will have significant environmental impacts. In fact, the study concluded; “*Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is*

likely to result in a jeopardy opinion⁷ from NMFS [National Marine Fisheries Service].” Therefore, a second harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment. In addition, the second harbor alternative does not meet the purpose of the project, as:

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

The computed benefit-to-cost (b/c) analysis results are shown in Table 3-3 and include the impact of a 23-day and 39-day closure of the existing Kahului Commercial Harbor.

**TABLE 3-3
BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

SITE	B/C WITH 23-DAY CLOSURE	B/C WITH 39-DAY CLOSURE
Hata Bay Breakwater Harbor	0.08	0.16
Maalaea Pier	0.38	0.50
Ukumehame Pier	0.50	0.71
Olowalu Pier	0.50	0.71
Olowalu Dock & Turning Basin	0.39	0.56
Olowalu Dredged Harbor	0.27	0.38

⁷ A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

3.7 NO-ACTION ALTERNATIVE

The No-Action Alternative is a required alternative under HRS 343 that needs to be analyzed in the Environmental Assessment. The No-Action Alternative provides that the Harbor will have no new facilities within the short-term. However, the forecast growth of shipping traffic, cargo tonnage and passengers will still increase even if no improvements are constructed. Under this alternative, there will be no new piers or major improvements to the infrastructure within the Harbor and the forecast vessel traffic will be accommodated with the existing facilities. It is predicted that the no-action alternative would cause significant overflow of existing facilities which will produce significant delays in the loading and unloading of cargo and passengers. The ships awaiting berthing areas would have to moor offshore or wait at other ports until a space becomes available. These inefficiencies will add to the cost of goods transported into and out of Maui. In addition, the offshore moorings and the congestion could increase the risk of transporting goods and people to Maui. In addition, the wastewater system will not be changed and DOT will be in violation of Hawaii Department of Health's and the U.S. Environmental Protection Agency's (EPA) rules and regulations, and will be subject to fines and penalties.

SECTION 4.0
DESCRIPTION OF THE AFFECTED ENVIRONMENT,
POTENTIAL ENVIRONMENTAL IMPACTS
AND MITIGATION MEASURES

4.1 CLIMATE

4.1.1 EXISTING CONDITIONS

The climate in the Kahului area is characterized by an equable temperature regime, marked seasonal variation in rainfall, persistent surface winds from the northeast quadrant and the rarity of severe storms. The range of temperatures between August, the warmest month, and January, the coldest month, is 79.2 °F to 71.5 °F.

Rainfall is normally relatively light and occurs mostly during the wet season from November through April. Annual rainfall is about 20 inches. Humidity in the Kahului area is usually moderate to high throughout the year.

Northeasterly trade winds dominate the wind pattern at Kahului Harbor and provide excellent ventilation for the area. The trade wind flow is most prevalent during the dry season, while variable winds occur primarily during the wet season. However, trade winds occur more than 50 percent of the time during the wet season.

The normal trade winds, accentuated by the funneling effect of Haleakala and the West Maui Mountains, may attain speeds of up to 40 to 45 miles per hour (mph). Occasional strong southerly (Kona) winds occur with the passage of storms during the winter months.

4.1.2 ALTERNATIVE ANALYSIS

The proposed project alternatives and No-action alternative will have no impact to Maui's climate.

4.2 LAND USE

4.2.1 EXISTING CONDITIONS

The majority of land within the Harbor's environs is designated Urban by the State Land Use Commission (LUC), with the Kanaha Pond Wildlife Sanctuary being designated

as Conservation. The Kanaha Pond Wildlife Sanctuary is located about one-half (½) mile east of the Harbor and is owned by the State of Hawaii, Department of Transportation, Airports Division and managed by the State of Hawaii, Department of Land and Natural Resources (DLNR).

The Harbor is located in an urbanized area and surrounded by Kahului town and is designated in the Wailuku-Kahului Community Plan and Zoning (WKCP) for Heavy Industrial use. The land uses immediately surrounding the Harbor include commercial and light industrial land uses. On the southern border of the Harbor, there is a residential condominium and two motels.

4.2.2 ALTERNATIVE ANALYSIS

The alternatives, including the No-action alternative will not require a change in land use or zoning, and therefore, there will be no impacts on land use and zoning. The DOT-HAR is exempt from the SMA and other County of Maui permitting processes.

4.3 AIR QUALITY

4.3.1 EXISTING CONDITIONS

The air quality of a given location is a function of both local meteorology and the amounts of air pollutants emitted from sources in the area. Present air quality in the Kahului area is affected by vehicular emissions, industrial and agricultural activities, and natural processes. The latest emissions inventory for the Island of Maui was conducted in 1980 by the State of Hawaii, Department of Health.

In the vicinity of Kahului Harbor, agriculture continues to be the major source of particulate matter emissions, and the level has increased by about 25 percent since 1980⁸. Sulfur oxides and nitrogen oxides emissions are primarily generated by electric power plants. Motor vehicles and the agriculture industry are the major sources of carbon monoxide and hydrocarbon emissions.

Significant industrial sources located within a few miles of Kahului Harbor include: Puunene Sugar Mill, located about two miles to the southeast; and Kahului Power Plant, neighboring the harbor to the east.

⁸ *Final Environmental Impact Statement, Kahului Airport Improvements*, Department of Transportation, Airports Division and Federal Aviation Administration, 1990

The North West Cruise Ship Association (NWCA)⁹ signed a Memorandum of Understanding (October 2002) with the State of Hawaii for wastewater management, solid waste and hazardous waste management and air emissions. For air emissions, NWCA agrees “... *to limit visible emissions, excluding condensed water vapor, as follows: ships will not exceed 20% opacity for periods of time exceeding 6 minutes in any 60 minute period.....*”, except for certain circumstances. In addition, NWCA ships will have opacity-metering and recording capability, and will continue to bunker their ships with fuel that has a sulfur content of less than 2.8% by weight.

4.3.2 ALTERNATIVE ANALYSIS

The alternatives will have the same impacts as that of the No-action alternative as the forecast demand will occur with or without the proposed project. Therefore, the proposed improvements will have an insignificant impact on air quality at the Harbor and its environs. The impacts associated with the existing Harbor will remain and the No-Action alternative will have no new impacts.

4.3.3 SHORT-TERM CONSTRUCTION IMPACTS

There will be short-term air quality impacts due to construction activities for these proposed improvements. Such impacts would be direct and indirect and emanate from two potential sources: fugitive dust from vehicle movement or soil excavation; and exhaust emissions from on-site construction equipment.

Fugitive dust emissions may arise from grading and dirt-moving activities within the project sites. The emission rate for fugitive dust is nearly impossible to estimate accurately because of its elusive nature and because the potential for its generation varies greatly depending upon: the type of soil at the construction site; the amount and type of dirt-disturbing activity taking place; the moisture content of exposed soil in work areas; and the wind speed. The State of Hawaii's Air Pollution Control Regulations require that visible emissions of fugitive dust from construction activity be essentially nil. Adherence to those regulations as recommended will serve to mitigate any potentially significant short-term fugitive dust air quality impacts to a level below the level of significance.

⁹ NWCA member lines include Carnival, Celebrity, Crystal, Holland America, Norwegian, Princess, Radisson Seven Seas, Royal Caribbean, and World Explorer. Recently, the NWCA informed Governor Linda Lingle, that NWCA will be transitioning out of the MOU as of December 31, 2005, due to the enactment of Act 217.

On-site construction equipment (both mobile and stationary) will also emit some air pollutants in the form of engine exhaust. The larger equipment are usually diesel-powered. Nitrogen dioxide emissions from diesel engines can be relatively high compared to gasoline-powered equipment, but the ambient air quality standard for nitrogen dioxide is set on an annual basis and is not likely to be violated by short-term construction equipment emissions. Carbon monoxide emissions from diesel-powered equipment, on the other hand, are very low.

Slow-moving construction vehicles traveling on roadways leading to and from the project site could obstruct the normal flow of traffic to such an extent that overall vehicular emissions are increased, but this impact can be mitigated by moving heavy construction equipment during periods of low traffic volume. Likewise, the schedules of commuting construction workers can be adjusted to avoid peak hours in the project vicinity. Thus, the potential short-term air quality impacts from project construction can be mitigated to a level below the level of significance.

4.3.4 MITIGATION MEASURES - CONSTRUCTION IMPACTS

Although the short-term construction impacts are insignificant, under the State of Hawaii, Air Pollution Control Regulations, visible emissions of fugitive dust from construction activities at the property line are prohibited. Thus, an effective dust control plan for the project construction phase will be essential. Construction activities must comply with provisions of Chapter 11-60.1 of the State of Hawaii Administrative Rules, Section 11-60.1-33, on Fugitive Dust. Adequate fugitive dust control can be accomplished by the following measures, as necessary:

- focusing on minimizing the amount of dust generating materials and activities, centralizing material transfer points and onsite vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;
- providing an adequate water source at the site, prior to startup of construction activities;
- control of dust from shoulders, project entrances, and access roads;
- providing adequate dust control measures during weekends, after hours, and prior to daily startup of construction activities;
- use of a frequent watering program to prevent bare-dirt surfaces from becoming significant dust generators;

- limiting the area that can be disturbed at any given time;
- application of chemical soil stabilizers or mulching;
- construction of wind screens;
- requirements that all open-bodied trucks be covered when transporting dirt or dust producing materials;
- road cleaning or tire washing, as appropriate; and/or
- the paving of parking areas and the establishment of landscaping early in the construction process to limit areas of possible dust production.

4.4 NOISE

4.4.1. EXISTING CONDITIONS

The Harbor typically is a high ambient noise environment, with operations occurring 24-hours a day and 7-days a week. The Harbor operations include heavy vehicle traffic by large vehicles, and the loading and unloading operations that use cranes, lifts and other mechanical equipment contribute to the existing noise levels. In addition, the land uses within the Kahului Harbor environs include the most industrialized portions of Kahului, and therefore, the area has a high ambient noise level.

4.4.2. ALTERNATIVE ANALYSIS

All of the alternatives, including the No-action alternative, will not have a significant impact on noise characteristics in the harbor and its environs.

4.4.3 SHORT-TERM CONSTRUCTION IMPACTS

There will be short-term noise impacts due to construction activities for these proposed improvements; however, due to the short duration, the impacts will be insignificant.

4.5 SOCIO-ECONOMIC IMPACTS

4.5.1 EXISTING CONDITIONS

Kahului Harbor is the only commercial harbor on the Island of Maui, and therefore all sea cargo flows through the Harbor. The 2001 estimated population of Maui County is 131,662¹⁰. The Department of Business and Economic Development and Tourism forecasts uses a range of annual growth rates of 0.8 to 2.0 percent to develop various scenarios for the population growth for the County. The major industries for Maui County are tourism and agriculture.

Hawaii's key industries are dependent on ocean transportation. The major utilities, petroleum industry and the construction industries depend almost entirely on the shipping industry. The agriculture industry depends on ocean shipping for importing and exporting of items. The harbor also includes facilities for the loading, unloading and temporary storage of cargo.

In fiscal year 2000, 2,529,897 short tons of cargo were unloaded and loaded at the Harbor. This shipping tonnage increased to 2,580,322 in fiscal year 2001, a two percent increase. Incoming cargo tonnage is about two-thirds of the total tonnage handled at Kahului Harbor. The majority of the tonnage consists mainly of: containerized cargo, such as personnel effects, food items and building supplies; automobiles; petroleum products; and cement. The outgoing cargo mainly consists of bulk items (sand) and agricultural products; such as pineapple, sugar and molasses. In addition, the cruise ships regularly call on Kahului which brings visitors to Maui.

It is forecast that ship sizes and the frequency of calls to Kahului Harbor will increase as discussed in Section 3.3. In addition, there is a potential for interisland ferry service to begin in the future, with several companies showing interest. Such a company is the Hawaii Superferry ("Superferry"), which is scheduled to start service in early 2007. The current proposed schedule of "Superferry," which was approved by the PUC, is to service Hawaii, Kauai, Maui and Oahu with one stop each per day. The planned arrival time for "Superferry" at Kahului is 11:00 a.m. with a departure time at 12:00 noon.

At this point in time, the success of the "Superferry" is not guaranteed. It will provide an alternate transportation mode between the islands and will compete with the local airlines and interisland maritime services for a share of the interisland passenger and cargo

¹⁰ U.S. Census Bureau, Maui County, Hawaii

market. In the past, interisland ferry service between the major islands has not been successful.

4.5.2 ALTERNATIVE ANALYSIS

Development Alternatives.

The proposed developments at the Harbor will increase the capacity of the Harbor to meet the existing and forecast vessel demand. The proposed Pier 1D extension will allow two large vessels to dock simultaneously at Pier 1 to meet the forecast vessel demand for Kahului Harbor. The forecast demand predicts an increase in vessel size and frequency-of-call will rise with or without this project. The ability to have the capacity to meet forecast demand will reduce the delays in unloading and loading passengers and cargo. Recently, the largest vessel to berth at Kahului Harbor had an overall length of 965 feet. The Piers 3 and 4 development and the Puunene Storage Yard create additional docking areas and cargo storage areas to accommodate the expected vessel sizes and frequency of calls. As the OPA 90 requirements for double-hulled petroleum vessels necessitate deeper berths than are currently available at Pier 3 and as the deep-water berths that would have been provided by the proposed 2C will not be available, existing berths and accesses to these berths must be deepened. Therefore, Piers 3 and 4 berths and accesses will be deepened by dredging. The development alternatives will not have any significant negative impacts on the population or the economy when compared to the No-action alternative. The development alternatives will not move population centers or shift employment areas, but will provide short-term increases in construction related industries. Therefore, there will be insignificant social and economic impacts due to the proposed improvements. There will be an increase in construction activity, which would have short-term positive impacts for the economy.

The Pier 1 comfort stations, water line and sewer line will have no negative impacts on the population or the economy. The construction of the improvement will provide short-term economic benefit to the construction industry.

No-Action Alternative

The No-Action Alternative would severely limit the capacity of the Harbor to accommodate future needs. It would create delays for the unloading and loading of cargo and passengers and increase the costs of goods in Maui. As all bulk shipments of petroleum products for Maui County arrive by ship, the fuel barges' petroleum products operations could experience extreme inefficiencies, and therefore will cause a significant economic impact for Maui.

In 1997, the *Economic Impact of Hawaii's Harbors* showed that if the port-economy were reduced to one-percent (1%) annually (whether by lack of infrastructure or investment), the effects would be:

- Sales and employment of the major harbor industries would be limited by 23.4%, i.e. would reach only 76.6% of the level anticipated for the year 2020;
- The Gross State Product would be curtailed by 2.1%; and
- Employment would be lowered by 0.5%.

4.6 GEOLOGIC AND GROUNDWATER CONDITIONS

4.6.1 EXISTING CONDITIONS

Geologically, the Island of Maui is characterized as East and West Maui, with East Maui dominated by Haleakala Volcano. West Maui, which includes the saddle isthmus between Haleakala and the West Maui Mountains and the Kahului/Wailuku areas (the Harbor location), is distinguished by Iao Needle in Iao Valley. There are five major geologic units on West Maui: (i) Pliocene and Pleistocene volcanic rocks, including the Wailuku and Honolua volcanic series; (ii) Pleistocene and recent volcanic rocks, including the Lahaina volcanic series; (iii) Pleistocene sediments which include calcareous dunes and consolidated earthy deposits; (iv) recent sediments which include unconsolidated deposits; and (v) historic volcanic rocks.

Typically, the West Maui basalt is thin-bedded a'a and pahoehoe created by quiescent flank eruptions along rift zones. A'a is characterized by a spiny, clinkery surface underlain by a dense core of rock. Pahoehoe has a smooth to billowy surface with a ropy or folded texture. The soils of West Maui, which reach depths of about 20 feet, indicate that the volcanic activity probably stopped in the Pliocene or earliest Pleistocene era.

The Harbor is situated at the northeastern corner of a broad isthmus that joins the two mountains. The underlying geology of the Harbor area is a sequence of intercalated volcanics, marine sediments, terrestrial sediments and fill laid on the northwestern flank of Haleakala. The shallow subsurface conditions along the landward side of the Harbor consists of exposed Pleistocene age sand dune deposits formed during a lower stand of the sea. Under the sand dunes lie lava flows and related deposits of the Kula Volcanic Series. This volcanic series is characterized as late stage volcanics of andesitic composition that formed thick flows of dense massive basaltic lava. The Kula lava flows are generally

mantled by a thin cover of volcanic ash. The base of the stratigraphic section in this area is the Honomanu Volcanic Series basalts of Haleakala. These rocks are primitive tholeiitic lavas with the porous and layered structure typical of Hawaiian basalts.

The physiography of the Kahului Harbor area is characterized as being relatively flat with an average slope of less than 0.5 percent from south to north. The current ground surface elevations range from sea level at the coast to about 13 feet mean sea level (msl) along Maui Beach Road.

Earthquakes with epicenters on or near the Island of Hawaii originate from both volcanic and tectonic activity. Most of the volcanically related earthquakes are associated within the underground movement of magma and are relatively small. These earthquakes originate from the Molokai Seismic Zone, which includes the islands of Maui and Hawaii. The Molokai Fracture Zone is a series of fractures in the sea floor that stretch from the Hawaiian Islands to Baja California. Most of the fracture zone is seismically inactive, but significant earthquakes are associated with the portion near Hawaii.

Data on earthquakes recorded on Maui during historical times indicate that two large quakes in the Molokai Fracture Zone and the Ka'u earthquake of 1871 probably produced earthquakes in East Maui. Haleakala Crater is considered to be a dormant volcano. The potential earthquake damage to existing and proposed structures would be minimized by following the Uniform Building Code and other applicable rules and regulations. Presently, Kahului Harbor is in seismic Zone 2B as established by the Uniform Building Code (UBC).¹¹

Ground Water Hydrology: The site overlies sediments of the Maui Isthmus and Kula Basalts which form a "caprock" or confining layer over the underlying basal aquifer in Honomanu Basalts. This confinement results in artesian conditions in the aquifer. Generally, Kanaha Pond is an expression of these artesian conditions resulting from leakage through the caprock.

The aquifer in Honomanu Basalt contains fresh water and is utilized in some locales by the Maui Department of Water Supply as a drinking water resource. In the region of the site, the basal aquifer is located at a depth of about 100 feet below the ground surface. At this depth, the potential of contamination from surface activities is low.

¹¹ The Uniform Building Code categorizes the United States into various zones from 1 to 4. These zones are assigned a "seismic zone factor" which is used to compute the seismic design loads on structures. The "seismic zone factor" is related to the intensity of seismic activity in the region.

There are no public drinking water wells within several miles of the harbor. The nearest wells are situated at locations which are either across gradient of or in distinctly separate geohydrologic formations from the property and are hydrologically isolated by the caprock which underlies the harbor.

The Harbor and adjacent properties are situated makai (downgradient) of the Underground Injection Control Line in this area of Maui. Based on available Hawaii State Department of Health records, there are several known injection well facilities within a radius of approximately one (1) mile from the harbor. These wells are used for the disposal of municipal wastewater and storm runoff into the caprock formation. The wastewater wells are situated across gradient, and, the majority of the storm water wells are situated upgradient of the Harbor.

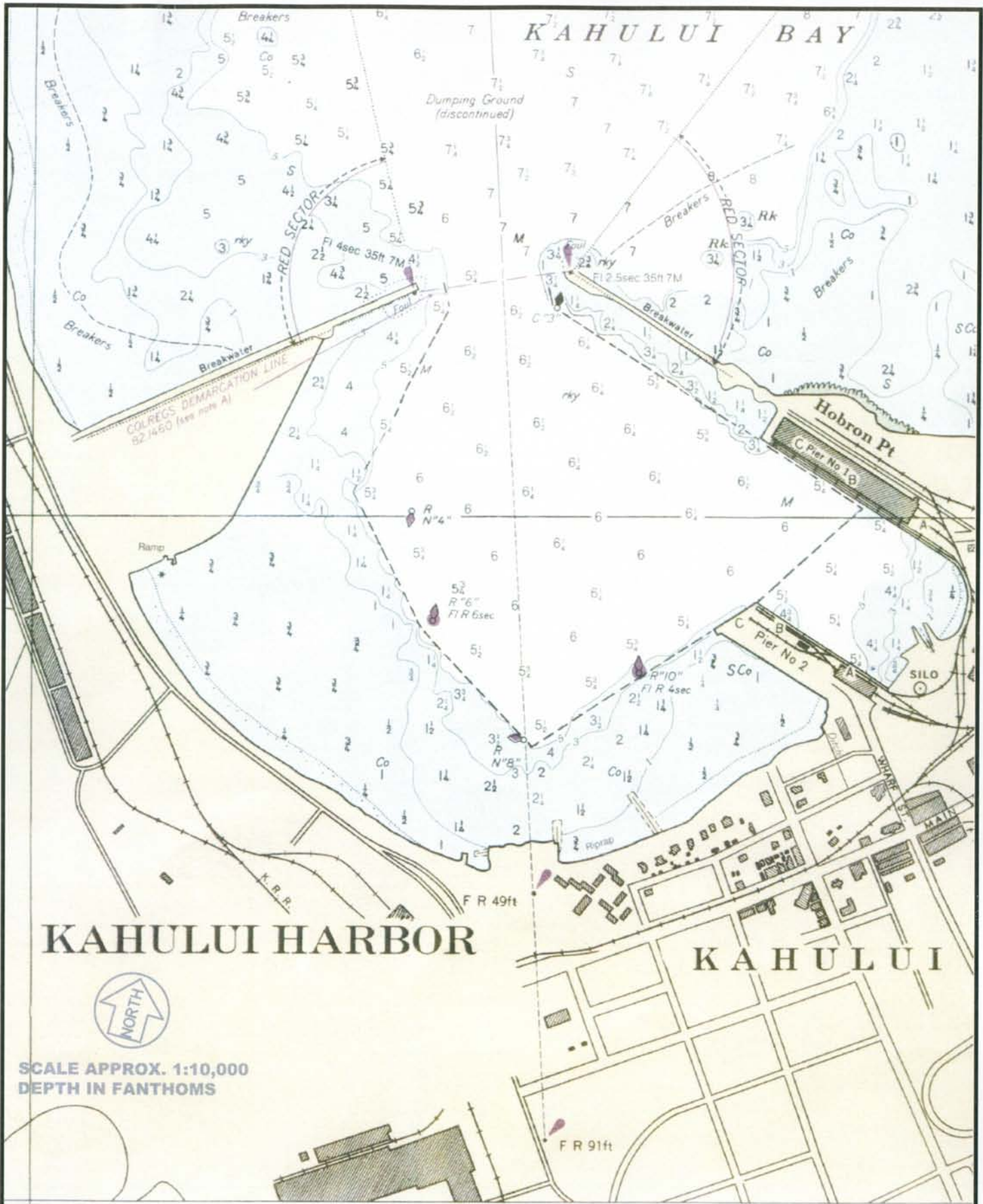
4.6.2 MARINE ENVIRONMENT

Kahului Harbor, a fan-shaped basin at the head of Kahului Bay, is bounded on both the east and northwest by long breakwaters protected with boulders and concrete armor units. The sand shoreline at the head of Kahului Harbor between Pier 2 and the shore along Kahului Beach Road is known as Hoaloha Beach and transitions to Kahului Beach. The beach is composed of brown, detrital sand and is broken by several boulder jetties built to retard erosion. Much of the southwest shoreline between the extreme south corner of the harbor and the coral fill area is a beach of gravel to boulder size rubble (See Appendix C).

The general bathymetry of Kahului Bay, Kahului Harbor and adjacent coastal waters is shown in Figure 8. A sand channel entering Kahului Bay is believed to be a relic feature representing the ancient drainage course of Waikapu Stream.

Much of the southern and southwestern perimeter of the harbor is fringed by a shallow reef shelf extending a few hundred feet offshore. Beyond the reef edge, the dredged harbor bottom is a terrace of silty-sand and limestone rubble dipping gradually seaward to depths of over 50 feet (15 m) beyond the Harbor entrance. Off the sand beach west of Pier 2 is a sand bottom extending to a depth of 10 feet (3 m). From a depth of 10 feet, there are consolidated rock pocketed by sand, and at the seaward edge of this formation, the depth drops to the dredged basin forming the eastern portions of the harbor.

Between Piers 1 and 2 the bathymetry is the shallowest at the Pier 1 boathouse and along Pier 3 with depths ranging from 5 feet to 18 feet. The bathymetry increases eastward toward the turning basin to a depth of approximately 30 feet until the end of Pier 2 with deeper areas of approximately 35 feet near Pier 1. The majority of the bottom is covered with fine silt and mud with a few rock out-crops. Soil investigations at the corner of Piers 2



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BATHYMETRY MAP

FIGURE 8

JANUARY, 2005

and 3 show the underlying substrate to be coarse-grained soils to a depth of about 35 feet below sea level. Similarly, the soil boring for the construction of Pier 3 bulkhead (near the north end of the current Pier 3), shows that the soil from approximately 15 feet to 50 feet below the water surface consists of coarse-grained soils such as loose clayey-silty sand and coral deposits.

Sand bottom occurs at depths greater than 30 feet (9 m) outside the mouth of Kahului Harbor. The west breakwater overlies an irregular reef whose margin is about 15 feet (5 m) deep. Here, the limestone platform drops a short distance to a sand bottom continuing offshore from a depth of about 20 feet.

The bottom of the harbor basin is comprised of sand and mud. The extensive sandy-mud bottom extends a long distance to the north outside of the harbor mouth. There are fringing reefs for several kilometers on either side of the Harbor, comprised of scoured reef platforms with sparse coral and fish communities.

4.6.3 ALTERNATIVE ANALYSIS

Pier 1D Preferred Alternative.

The construction of Pier 1D will require the driving of piles to support the planned mooring dolphins and catwalk system. The piles will have a localized impact to the marine environment where the pile driving occurs, but will not cause significant impact to the marine environment. There will be no impact to geological or groundwater conditions. Typically, rip-rap protection will be laid under the pier to provide erosion protection for the edge of the turning basin. To further minimize impact to the marine environment, it is recommended to the extent practical, that all fabrication will be performed on fast land.

Development Alternatives for Piers 3 and 4.

The development alternatives for Piers 3 and 4 will be constructed on piles and/or on bulkheads with fill. The initial development may incorporate various mooring facilities such as; a pier on piles or bulkhead with fill, finger pier, and/or mooring/breasting dolphin(s). The full development would be a combination of bulkhead with fill, and/or piles. In addition, due to the draft of the ships arriving at Kahului Harbor, this area fronting the Piers 3 and 4 will need to be dredged to a depth of 30 to 35 feet to allow for the use of the pier by the double hulled fuel barges which will be needed to meet the OPA 90 requirements. The volume of dredge material will be in the 60,000 to 70,000 cubic yards range. The dredged depth is needed to accommodate the ships expected to use the Pier 3 and 4 complex, such as the double-hulled fuel barges. These alternatives will not have a significant impact

on the marine environment, geological conditions or groundwater. To further minimize impact to the marine environment, to the extent practical all fabrication will be performed on fast land. During the dredging operation, the DOT-HAR will follow applicable rules and regulations, and the conditions of the U.S. Army Corps of Engineers permit, to further minimize impacts to the environment. Therefore, there will be no significant impact to the marine environment.

Pier 1 Comfort Stations, Waterline and Sewer Line

The Pier 1 comfort stations, waterline and sewer line would require the excavation for the sewer and water lines and will not have a significant impact on the geological conditions or ground water. It will have no impact on the marine environment.

No-Action Alternative

The No-Action Alternative will not have an impact on the marine environment, geological conditions or groundwater.

4.7 WAVE AND CURRENTS

4.7.1 EXISTING CONDITIONS

A wave climate and wave response study was conducted by the U.S. Army Corps of Engineers for the 2025 Master Plan and published in June 2002. Wave data for the Harbor were collected from November 1993 to May 1995 outside of the Harbor entrance using a directional array gage. The data shows that the Harbor is exposed to winds and waves from the north to northeast directions, and is protected from the northwest waves by the northwestern portion of Maui. Large waves generated by intense winter storms in the northern Pacific Ocean and hurricanes attack the Harbor. The wave data shows an annual mean significant wave height of approximately 3 feet and a maximum significant wave height of over 8 feet for 1994.

Currents outside of Kahului Harbor are predominately tidal driven and travel in the east and west direction. Inside the Harbor, the current has a clockwise circulation pattern during flood tide and counter clockwise during ebbtide. A drogue study completed in 2002 (presented in Appendix D) shows that there is generally limited exchange of waters from outside of the Harbor. Under strong tradewind conditions, the surface flow is across the harbor to the west.

4.7.2 ALTERNATIVE ANALYSIS

Pier 1D Preferred Alternative

This proposed improvement will be constructed on piles and will have insignificant impacts on waves and currents in the Harbor.

Pier 3 and 4 Alternatives

The proposed development alternatives for Piers 3 and 4 will be pile-supported or a bulkhead with fill and pile structures and will have an insignificant impact on the harbor circulation and waves.

Pier 1 Comfort Stations, Waterline and Sewer Line and Puunene Storage Yard Improvements

Both the proposed Pier 1 comfort stations, waterline and sewer line project, and Puunene Storage yard improvement projects will have no impact on the harbor circulation and waves.

No-Action Alternative

The No-Action Alternative will have no impact on the existing harbor circulation or waves climate.

4.8 WATER QUALITY

4.8.1 EXISTING CONDITIONS

The State of Hawaii, Department of Health, currently lists Kahului Bay (inshore of the breakwater) as an impaired body of water due to high levels of nutrients and turbidity, under section 303(d) of the Clean Water Act. The impaired status of these waters requires that the Department of Health establish Total Maximum Daily Loads (TMDLs) suggesting how much the existing pollutant loads should be reduced in order to attain water quality standards in the stream and coastal waters. As of this date, the TMDLs have not been established.

Water quality sampling of Kahului Harbor was conducted on October 16, 2002, on a rising tide, and on April 15, 2003, during a period of strong trade winds. The results of both sampling days are presented in Appendix C.

Water temperature was generally uniform between nearshore stations and between the surface and 5 meter depths at nearshore stations. Within the harbor, surface waters tended to be 0.3 - 0.7 degrees Celsius (C) cooler than at 5 meters depth, reflecting surface cooling associated with passing rain showers and light trade winds during the first sampling. Shoreline water temperatures were generally 0.3 - 0.5 degrees C warmer than surface harbor waters, probably reflecting solar warming as shoreline samples were collected in the early afternoon.

During the October 2002 sampling, salinity levels were lower than typical for Hawaiian waters, ranging from 29.66 parts per thousand (ppt) at the shoreline station S2 to 34.35 ppt in nearshore samples outside the harbor. Depressed salinity levels reflected the recent input of freshwater by rain and runoff. In the April 2003 study, the water quality conditions at the nearshore stations outside the harbor were typically open coastal in nature, with higher salinity levels (34.14 – 34.89 ppt) than observed during the previous survey. Levels of dissolved nutrients were consequently low and typical of open coastal waters with little groundwater influence.

Samples collected along the shoreline again showed strong influence of groundwater, with the salinity of samples collected within the western part of the harbor (S2 – S6) ranging from 27.2 – 32.59 ppt. Lowest salinities were observed at stations S3 and S4, located in the southwest corner of the harbor. Salinity at station S1, a shoreline station on the northern face of the western breakwater, outside the harbor, was similar to open coastal waters (34.39 ppt), as was salinity (34.67 ppt) at S7, near the base of Pier 1.

Dissolved oxygen concentrations were generally typical of nearshore marine waters, ranging from 4.8 to 6.0 mg/l, values that are greater than 90% saturation at their respective temperatures and salinities. PH levels varied little and were typical of nearshore marine conditions.

Turbidity levels were highly variable between nearshore stations, increasing from west to east. This reflected visually-observed decreases in water clarity due to high surf and resuspended sediments on the western stations and both resuspended sediments and stream-borne sediments discharged during earlier heavy rains to the east. Nearshore turbidity levels ranged from 1.6 to 10.4 NTU. Turbidity levels within the harbor were not different from those in nearshore waters outside the harbor, and ranged from 1.9 to 9.4, with a very high value from a near-bottom sample (37.6 at E1). Turbidity levels at shoreline stations within

the harbor (S2 - S7) reflected variable shoreline wave action and build-up of detached macroalgal material. Overall, turbidity levels were highly significantly related to Total Suspended Solids, and showed the same patterns of distribution and concentrations (during April 2003).

Water samples taken during both sampling periods showed a strong influence of groundwater influx to the Harbor. Increasing levels of silicate with decreasing salinity reflect the dilution of low silicate nearshore coastal seawater with high silicate groundwater. The data suggests a groundwater source with a somewhat decreased silicate load. In addition, the nitrate + nitrite vs. silicate and phosphate vs. silicate relationships show a strong relation between silicate and other dissolved nutrients, suggesting a common upland source. Only samples located along the western shoreline of the Harbor, showed a different nitrogen to silicate and phosphorus to silicate ratio, suggesting a local source of additional nutrients or localized nutrient uptake.

Chlorophyll levels were generally low and showed no systematic relationship to salinity. Elevated chlorophyll levels were observed at shoreline stations along the coastline of the harbor.

4.8.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

All of the development alternatives will have insignificant impacts to the water quality of the Harbor. The proposed Pier 1 comfort stations and sewer line improvements will terminate the use of the cesspools at Pier 1 and are expected to have some beneficial effect in reducing the potential flow of nutrients into the Harbor waters in the vicinity of Pier 1. However, the proposed improvements will not significantly reduce existing nutrients or turbidity levels.

The design of the “in-water” projects will include measures, such as silt curtains and Best Management Practices, to the extent practical, to minimize the impact of the construction on the water quality of the area. The designers should coordinate with the Department of Health, Environmental Planning Office to attain a no-net increase in pollutant loads. During the dredging operation, the DOT-HAR will follow applicable rules and regulations, and the conditions of the U.S. Army Corps of Engineers permit, to further minimize impacts to the environment. With these measures, the construction of the “in-water” projects will have an insignificant impact to the water quality.

In addition, dumping in the harbor is illegal pursuant to HRS Chapter 19-42-127, “Littering or polluting of water prohibited,” it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforce this law. Therefore, there will be no legal dumping and discharge of pollutants in harbor waters due to the maritime demand. There is a spill response team, whose equipment is strategically located within Kahului Harbor, which is trained to respond immediately to spills and coordinate its efforts with the U.S. Coast Guard.

No-Action Alternative

The No-action alternative will maintain the current water quality in the bay and will not reduce the nutrients or turbidity as stated by the Department of Health. However, there will be no significant impact on the existing water quality.

4.8.3 SHORT-TERM CONSTRUCTION IMPACTS

There is a potential for short-term impacts during construction of the proposed improvements. These impacts are short-term and are considered to be insignificant. To minimize the impact, the following mitigation measures will be included in the design as applicable.

- Designers shall coordinate with the Department of Health, Environmental Planning Office to attain a no-net increase in pollutant loads.
- Measures such as silt curtains will be used to control and isolate turbidity caused by in-water construction.
- Best Management Practices will be used to control runoff into harbor waters.

4.9 HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

4.9.1 EXISTING CONDITIONS

An archaeological and cultural assessment was performed on the Kahului Commercial Harbor Master Plan 2025 and is included as Appendix B. The Kahului Harbor has been designated a historic site, Site 50-50-04-2953, in the State of Hawaii, Inventory of Historic Places maintained by the State Historic Preservation Division. However, the site is not on the National Register of Historic Places or the Hawaii Register of Historic Places, but is potentially eligible. This site consists of those features and structures of the Harbor

that were constructed during its main period of development between 1901 and 1931. The historical importance of this site is its link to the development of the sugar industry on Maui and the establishment of Kahului as the main commercial center.

The Harbor also falls within the Historic Kahului District as defined during the 1974 statewide inventory as Site 50-50-04-1607. Six structures are specifically listed as contributing elements, the Kahului Railroad roundhouse, shop and office, the First Hawaiian Bank, a school, and the fairgrounds (See Figure 9).

The potential for undiscovered subsurface cultural resources in most of the Harbor is quite low, as the piers were built on fill from the dredging to deepen the bay and enlarging the Harbor. However, a cultural deposit was revealed in TMK 3-7-8, and the State Historic Preservation Division noted the potential for such deposits on TMK 3-7-10:2.

The current cultural activities in the Harbor area, including fishing, surfing and canoe paddling, reflect a time when this part of Maui served as a primary area for these traditional Hawaiian recreational practices. Current users include two paddling organizations, the Hawaiian Canoe Club (established around 1974) and the Na Ka Ewalu (established around 1972). Both have *hale* located outside of the Harbor boundaries, in back of Hoaloha Beach. The paddling season usually extends from March to September/October. The clubs use the water area which consists of eight (8) lanes, and extends about 1/4 mile from shore, paralleling and passing Pier 2. Recent discussions with the canoe clubs indicate that other canoe organizations have been using the area, and therefore, the canoe facilities are being used year round.

Shore fishing is generally performed in three areas: Perimeter Road, Hoaloha Beach, and the west breakwater area. Two of the fishing areas, the Perimeter Road and Hoaloha Beach, are in or near the proposed improvements. From September 11, 2001, fishing has been prohibited along the Perimeter Road at Pier 1 for security reasons. No pole fishing is allowed from the piers, and net fishing is prohibited in the Harbor. In addition, small non-commercial boats are launched from the boat ramp on the western side of the Harbor. The majority of the boats leave the harbor, but there is some fishing and fish collecting performed within the Harbor. Some of the boats are used as support vessels for the canoe racing. The current security rules enforced by the U.S. Coast Guard do not allow unauthorized users to enter the area between Piers 1 and 2 and from the tip of Pier 2 to the tip of the east breakwater. In addition, there is a security zone that extends 300 feet around a passenger vessel. It is highly possible that during a high security risk level that all unauthorized vessels and non-commercial users of Kahului Commercial Harbor will not be allowed entry.



NOT TO SCALE



AERIAL PHOTO 09-2003
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HISTORICAL BUILDINGS

FIGURE 9

Prepared by : Edward K. Noda and Associates, Inc.

JANUARY, 2005

Surfers have used the western end of the Harbor along the breakwater for many years. It is considered an ideal surfing location for residents along the northern shores of Maui. Surfing is done primarily during winter, and good conditions can allow surfing from the breakwater to the beach area (towards the Harbor Lights condominium).

Swimmers and beach/park users use the beach. Swimming is infrequent due to the murky waters in the Harbor, however, during times of clear water, spear fishing and recreational diving does occur on the western side of the Harbor.

4.9.2 ALTERNATIVE ANALYSIS

All Development Alternatives

Pier development will be constructed offshore or on existing fill lands. Therefore, there will be no impact on archeological sites. The pier development will have an insignificant or minimal impact, if any, on the historical districts as the Harbor derives its historical importance from the role played in the development of the Harbor. The pier modifications are simply a continuation of the process that gives the piers and wharves their historic value. Also, since the Harbor piers and wharves are regarded as significant cultural resources primarily because of their role in history and not their architectural qualities, these modifications will not affect the qualities that give the property its value.

Alterations to the Harbor may also indirectly alter the integrity of the historical setting for the three Kahului Railroad buildings that form contributing elements of the Kahului Historic District. The Kahului Railroad buildings are important for their architectural as well as historic value, but any indirect impacts should not affect their architectural integrity. Therefore, there will be no or insignificant impact to any of the historic structures.

The modifications to existing buildings, such as the comfort station, for example, will consist of minor alterations, involving extensions and expansions of current features rather than new construction on non-historic structures. Therefore, the proposed improvements will have insignificant impacts to the historical nature of the site.

The proposed water lines, sewer line, and the Puunene storage area improvements will involve excavation. However, these projects are not expected to have any significant impact on archaeological, historical or cultural resources as the potential of finding buried resources is low. Therefore, it is expected that these improvements will have insignificant impacts to archaeological and cultural resources. To further minimize the potential for impact, the mitigation measures in Section 4.9.3 are recommended.

4.9.3 MITIGATION MEASURES

Although no or insignificant impacts are expected with the preferred improvements, the designers and contractors should minimize potential indirect impacts to the archaeological and cultural resources as stated in the letter from the SHPD on October 23, 2003. Also, SHPD provided a determination of “no historic properties affected” in their letter dated March 31, 2004.

The October 2003 letter states, that while the potential for finding buried cultural deposits appear quite low, should human remains, prehistoric or historic artifacts, or cultural features (such as trash pits, post holes, or hearths) be encountered in the course of excavation during construction, the contractor shall halt work in the area and contact the SHPD Maui Office in accordance with Section 6e of Chapter 343, Hawaii Revised Statutes.

For the Puunene storage facility, the sewer line and the roadway/bridge from Pier 2 and other projects which impact TMK 3-7-08: 01, 03, inland portion of 04, and 06 inland of Pier 2 on the west side of Wharf Street, a qualified archaeological monitor shall be present at all ground-altering activities. For these projects, a monitoring plan shall be prepared prior to the commencement of construction and a monitoring report submitted to the SHPD at the end of the monitoring.

4.9.4 NO-ACTION ALTERNATIVE

The existing impacts on the historical area will remain with the No-action alternatives. There will be no additional impacts on archaeological, historical and cultural resources.

4.10 BIOTIC COMMUNITIES

4.10.1 EXISTING CONDITIONS

4.10.1.1 FLORA

As the Harbor area is already developed and predominantly on filled land, the existing flora consists of landscaped plants and weeds. The landscaped plants and weeds are a mix of introduced and native species, such as beach naupaka, Bermuda grass and tree heliotrope. There are no endangered, threatened or species of concern in the area.

4.10.1.2 FAUNA

As the Harbor area is already developed, the existing fauna is expected to be that found in other similar commercial / industrial areas. There are no endangered, threatened or species of concern in the area. There have been observations of waterbirds in the drainage way, to the west of Pier 2. These sightings were intermittent, and the area is not used for nesting by these water birds.

4.10.1.3 MARINE BIOTA

Within Kahului Harbor, the crab, *Macrophthalmus telescopicus*, is the most conspicuous inhabitant of the silty-sand bottom nearshore between Piers 1 and 2 in the eastern portion of the Harbor. Less common are solitary tunicates and a few small solitary heads of the coral, *Montipora* sp., in poor condition. *Mugil cephalus* (striped mullet), *Selar crumenophthalmus* (big-eyed scad), *Decapterus macarellus* (mackerel scad), *Acanthurus triostegus* (convict tang), *Etrumeus micropus* (herring), *Kuhlia sandvicensis* (Hawaiian flagtail), *Caranx ignobilis* (giant trevally), and *Chanos chanos* (milkfish) are reportedly common within the harbor. A detailed description is presented in Appendix C.

4.10.1.4 ALIEN PEST SPECIES

The arrival of large overseas vessels, barges and passenger vessels in Kahului Commercial Harbor have the potential to introduce alien pest species through cargo, passengers, ballast water and onboard ships. Some of these alien species may become invasive and harmful to the State. In fact, the State of Hawaii, including Maui County, receives approximately 79 percent of all goods and commodities used in Hawaii through its commercial harbors. Harmful alien pest species include organisms, plants, predators and insects which can: damage native forests, streams and watersheds; compete with and cause the extinction of native flora and fauna; carry diseases that may affect native species, agricultural crops and humans; and interrupt the shipment of local produce (Reference 5). Currently, the prevention of the introduction of alien species to Maui is under the jurisdiction of the: State of Hawaii, Department of Agriculture (HDOA); Hawaii Department of Land and Natural Resources, Division of Aquatic Resources (DLNR-DAR), U.S. Department of Homeland Security (formerly U.S. Customs and U.S. Department of Agriculture); and the State of Hawaii, Department of Health. These agencies monitor, inspect, quarantine and certify cargo from foreign ports and inter-state / intra-state cargo. In addition, the DOT-HAR and the DOT is participating in committees, such as but not limited to the Coordinating Group on Alien Pest Species (CGAPS), and task forces to monitor and resolve the potential introduction of alien pest species. DOT-HAR will continue to work with these

agencies which have jurisdiction and authority on the prevention and control of alien pest species within the commercial harbors.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high risk commodities which enter through the Harbor include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The interisland dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut-flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No.1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
- *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*

The DLNR-DAR is the designated lead agency for preventing the introduction of alien aquatic organisms and for carrying out the destruction of these organisms through the regulation of ballast water discharges and hull fouling organisms through Act 134 Sessions Law 2000. In September 2003, the DLNR-DAR completed the State of Hawaii Aquatic Invasive Species Management Plan. Alien pests may be present aboard the incoming ships, especially in ballast water and on the hull. As Hawaii is primarily an import state, this minimizes somewhat the potential of alien species introduction through ballast water. Cargo ships are typically laden with cargo and have minimal volumes of ballast water. As cargo is off-loaded from the ship, ballast water is taken on rather than discharged (Reference 8).

In addition, many of the cruise lines signed the NWCA Memorandum of Understanding (MOU) for waste management. This MOU is based on the International Council of Cruise Lines Industry Standard, *“Cruise Industry Waste Management Practices and Procedures,”* Appendix II. In addition, the MOU includes the following provision: *No discharge of untreated blackwater, treated blackwater or graywater within the Hawaii Marine Area. The Hawaii Marine Area is those waters between the shoreline and any point four nautical miles beyond the 100 fathom contour line.*

4.10.2 ALTERNATIVE ANALYSIS

All Development Alternatives

Due to the existing development in the harbor, the proposed improvements will have insignificant impacts on the terrestrial fauna and flora. As there are no endangered or threatened species or species of concern in these areas, there will be no impact on any listed terrestrial flora or fauna by the proposed improvements.

The proposed improvements will have an insignificant impact on the marine biota. The Piers 3 and 4 dredging will be in areas impacted by existing in-water facilities, past dredging operations and current harbor use and therefore would have no significant impact. All of the proposed developments will have no impact to any listed species.

The proposed improvements are not expected to increase the number and types of ships to Kahului Harbor, nor the amount of cargo or passengers entering Maui through Kahului Harbor. Therefore, the improvements will not increase the amount of alien species entering Maui and will have an insignificant impact on the introduction of alien species to Maui.

No-Action Alternative

The no-action alternative will have no impact on terrestrial flora or fauna and marine biota, other than existing impacts. Alien species will continue to enter Maui by hitchhiking on the commodities imported by the businesses and residents of Maui.

4.11 WETLANDS

4.11.1 EXISTING CONDITIONS

The U.S. Army Corps of Engineers has delineated a portion of the unlined drainage way near Pier 2 as a wetland. However, in a letter of October 18, 1996, the United States Department of Interior states that to the best of their knowledge, no endangered or threatened species are within the project area. Also, no endangered or threatened bird species were encountered during recent field visits. This drainage way runs through the beach area next to Pier 2 and is connected and fed by the County's lined drainage channel which parallels Puunene Avenue. A Botanical Resources Assessment Study was completed by Char & Associates in January 1997. The Assessment does not list any endangered or threatened species in this area. The water is supplied by a manmade drainage system, owned by the

County of Maui, that collects water from off-harbor areas. The County of Maui is considering relocating the canal to an off-harbor location.

4.11.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

The proposed developments for Pier 1D, Pier 3, Pier 4 and the comfort stations, waterline and sewer line will have no impact on wetlands.

The proposed Puunene storage yard improvements will require a bridge to be constructed immediately south of the wetlands but will not impact the wetland directly. In addition, as stated above, mitigation measures will be used to prevent further degradation of the water quality during construction. The access bridge will not have an impact on the wetlands.

No-Action Alternative

The no-action alternative will have no impact on the existing wetland.

4.12 FLOOD PLAINS

4.12.1 EXISTING CONDITIONS

The entire Harbor is located in a V23 flood zone as delineated in the Flood Insurance Rate Map, which indicates flooding due to wave action (tsunami). Base flood elevations range from 10 feet to 18 feet.

4.12.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

The proposed development alternatives will not have an impact on the floodplains in the Harbor. The proposed access bridge will be designed to accommodate the existing drainage way. The proposed improvements will be in compliance with the development criteria for construction in the flood zone. The DOT-HAR will comply with the National Flood Insurance Program regulations, as applicable.

No-Action Alternative

The No-action alternative will not have an impact on the floodplain.

4.13 ENERGY SUPPLY

4.13.1 EXISTING CONDITIONS

Electrical energy is supplied by Maui Electric Company (MECO) through overhead lines on Kaahumanu Avenue, Wharf Street, Puunene Avenue and Hobron Avenue. The harbor is supplied from both the Kahului Substation No. 8 and the Kanaha Substation No. 2.

4.13.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

The proposed development alternatives are expected to have an insignificant impact on the electrical demand on Maui. The proposed developments have been discussed with MECO representatives during the planning process. There will be an increase in demand due to the forecast increase in maritime demand but this increase will occur with or without the proposed projects. There will be an increase in short-term use of petroleum products and energy consumption during the construction phases of these projects.

No-Action Alternative

The No-Action Alternative will not have an impact on energy consumption, other than existing and forecast demand. There will be a relative increase in energy consumption as the passengers and vessel demand increase in the future, however, this should be an insignificant impact.

4.14 LIGHT EMISSIONS

4.14.1 EXISTING CONDITIONS

Due to the 24-hour operation of the harbor, the docks and storage areas are well illuminated to allow for Harbor operations to be performed under safe and secure light conditions. In addition, lower intensity lighting is used for security/safety purposes and for navigational aids.

4.14.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

The proposed Pier 1D, Pier 3 and Pier 4 improvements will include lighting for navigational aids, safety and operational purposes. The operational and safety lights will be attached to existing and new structures or “pole” mounted to provide the necessary illumination characteristics.

The Puunene Storage yard will have lighting for security and safety purposes. The lighting will be provided by overhead lights, either on buildings or “pole” mounted. The sewer line, waterline and comfort stations improvements will also have outside lighting fixtures.

The new lighting will increase the amount of light emissions, however, the impact will not be significant as the area is well-lit under existing conditions. In addition, the Harbor is located in an urbanized area and has a high level of ambient light. The proposed lighting will provide for a safer environment, especially at the Puunene storage area. Although the impact is insignificant, to further minimize the impact, certain measures will be undertaken to minimize any spillover effect from the new lights and to reduce environmental harm. For example, new lighting will be properly shielded and directed to prevent intrusion into areas outside the harbor areas to the extent feasible and reasonable. In addition, new lighting will be in compliance with applicable lighting codes and standards. It is also recommended that the designers follow DLNR’s publication, *The Newell's Shearwater Light Attraction Problem*.

No-Action Alternative

No new lighting will be provided and the existing light emission level will remain.

4.15 WATER SUPPLY

4.15.1 EXISTING CONDITIONS

The County of Maui Department of Water Supply (DWS) administers and operates the water systems on Maui. The Central Water System (CWS), one of five island systems, serves the Harbor, the urban and rural areas of Wailuku-Kahului, Kihei-Makena and the smaller portions of Paia. The CWS draws water from four aquifers: Kahakuloa, Waihee, Waikapu, and Iao. The Harbor receives water from the Iao aquifer. The project water use

by 2010 at Kahului Commercial Harbor is expected to reach 0.04 million gallons per day (mgd).

The Iao aquifer has an estimated sustainable yield of 20 mgd. As of July 21, 2003, the state Commission on Water Resource Management (CWRM) designated the Iao aquifer as a Groundwater Management Area. Based on a 12-month moving average from October 2003 to September 2004, the total pumpage was 16.65 mgd (Reference 14).

As noted above, the DWS has estimated that the Iao aquifer has sustainable yield of 20.1 mgd. DWS has also estimated that the future average demand for all uses will be 30.5 mgd. As the forecast future demand for all uses exceeds the estimated aquifer yield, the County has initiated the development of other water sources in East Maui. The existing water system serving the Harbor is made up of a network of pipelines with diameters ranging between four to eight inches. The system is connected to a 12 inch water main under Kaahumanu Avenue.

4.15.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

In general, the water demand will increase due to the forecast increase in passengers and vessels utilizing Kahului Harbor with or without the Proposed Project. The Pier 1D, Pier 3, and Pier 1 comfort stations, water line construction will have no impact on the water distribution system. The Pier 1 upgrade, Puunene Storage Yard, and Pier 4 will have new water lines. The proposed improvements will have an insignificant impact on the water demand and supply system. As stated in Section 3.4, the proposed improvements will incorporate sustainable building guidelines, as practical, to further minimize water use. These measures may include the use of water saving and energy conservation devices, and the use of xerophagic native plants.

No-Action Alternative

The water demand will increase in relationship with the forecast passenger demand and will have an insignificant impact on water demand or the supply system.

4.16 SOLID WASTE

4.16.1 EXISTING CONDITIONS

Solid waste from the Harbor and its operations are collected by a private firm contracted by the State or the users. Solid waste is collected and disposed of at the Central Maui Landfill. In the design of the proposed improvements, and in accordance with the County of Maui rules, the Contractor will need to submit a plan for construction waste disposal and recycling.

4.16.2 ALTERNATIVE ANALYSIS

All alternatives, including the No-action alternative, will have an insignificant impact on the amount and composition of the solid waste generated at the Harbor. Due to the forecast increase in maritime demand, the volume of solid waste will increase in relation to the demand. The composition of the waste is not expected to differ from the existing composition.

For the development of the proposed improvements, there will be a short-term increase in the construction waste generated at the Harbor. Due to the short-term nature, this increase will have an insignificant impact. If during the demolition, hazardous waste or asbestos containing building materials need to be disposed, the contractor will be responsible for transport and disposal at an acceptable disposal site. The dredging of the Harbor will create excess material, which could be: used to fill the Pier 4 area, if constructed as a bulkhead pier; used as a fill material on land, if suitable; disposed at an approved landfill in Hawaii or overseas; or disposed at sea. If the disposal at-sea was implemented, the disposal would be in an Environmental Protection Agency (EPA) designated disposal area and the required testing would need to be completed to insure acceptability of the material for ocean disposal. These tests would be conducted prior to disposal of the material at an ocean disposal site. If the tests do not allow for ocean disposal, the excess material will be disposed of at an approved landfill site. The dredging would require a permit issued by the U.S. Army Corps of Engineers and applicable conditions imposed by the U.S. Army Corps of Engineers will be followed. Therefore, due to the proper disposal of the dredge material, there will be insignificant impacts.

4.17 WASTEWATER COLLECTION, TREATMENT AND DISPOSAL

4.17.1 EXISTING CONDITIONS

Kahului Harbor is served by the Wailuku-Kahului Wastewater Reclamation Facility (WRF), the primary County wastewater treatment facility and located to the east of the Harbor. WRF is a secondary, activated-sludge treatment facility that has a design capacity of 7.9 mgd. Effluent is disposed of through eight (8) injection wells located north of the treatment plant. In addition, the plant also has a storage pond available to accommodate peak flows. Because of its location in the tsunami inundation zone and the high maintenance costs due to its location near the ocean, the plant is not scheduled to undergo any further expansion at this time. The wastewater generated on the “Superferry” will be discharged in Honolulu.

The existing Harbor sewage system serves the facilities at Pier 2 and along Ala Luina Street. The major collector lines are on Wharf Street, Puunene Avenue and along the old Second Street alignment (parallel to Kaahumanu Avenue). The County has plans to replace the sewer line along the old Second Street alignment with a new force main. The comfort stations on Pier 1 currently discharge into cesspools.

4.17.2 ALTERNATIVE ANALYSIS

Proposed Development Alternative

The proposed development alternatives will have insignificant impact on the wastewater collection and treatment system. The renovated Pier 1 comfort stations and sewer line will be connected to the system. Once the sewer line and comfort stations are operational, the cesspools will be closed, and the Harbor will be in compliance with the DOH and EPA rules on large capacity cesspools.

No-Action Alternative

The No-action alternative will have no impact on the existing wastewater collection and treatment. The current use of cesspools will remain as existing and the DOT-HAR will not achieve compliance with DOH and EPA regulations.

4.18 POLICE AND FIRE SERVICES AND PUBLIC SAFETY

4.18.1 EXISTING CONDITIONS

A private company is hired by the Harbors Division to provide security on the harbor properties. However, the Maui County Police services are also used. The County police services are provided to the Harbor and Central Maui areas from the police station located within the Wailuku Civic Center. The County Police Department, in association with State and private security services, presently provides security services to the Harbor.

County fire services are provided from the Kahului and Wailuku Fire stations, located approximately two and three miles, respectively, from the Harbor.

The “Superferry” is required by law (33 Code of Federal Regulations) to develop, implement and maintain a Hawaii SuperFerry Vessel Security Plan that is submitted to and approved by the U.S. Coast Guard. The Hawaii SuperFerry Vessel Security Plan must include the SuperFerry’s security personnel, training, drills and exercises, record keeping, Maritime Security Level coordination and implementation, procedures for interfacing with terminal facility security, Declaration of Security, security systems and equipment maintenance, security measures for access control (including screening of vehicles and passengers), security measures for restricted areas, security measures for handling cargo, security measures for delivery of stores and bunkers, security measures for monitoring, security incident procedures, etc. The U.S. Coast Guard will monitor and enforce the security requirements of the Hawaii SuperFerry Vessel Security Plan. Whenever required, the Hawaii SuperFerry and the U.S. Coast Guard will request the assistance of the Maui Police Department, the State Department of Public Safety Sheriff Division, the Federal Bureau of Investigation, the State Department of Defense, the State Department of Land & Natural Resources Enforcement Officers and the Department of the State Attorney General.

4.18.2 ALTERNATIVE ANALYSIS

The proposed improvements and the no-action alternative will not have an impact on the police, fire and public safety services.

4.19 HEALTH CARE FACILITIES

4.19.1 EXISTING CONDITIONS

Health care and hospital services on Maui are provided by Maui Memorial Medical Center, the island's only full service hospital for acute care. Maui Memorial Medical Center is licensed for 196 beds, and is a state hospital being operated by the Hawaii Health Systems Corporation. Other private facilities treat long-term and specialty care patients. Tertiary services are provided on Oahu and/or the mainland U.S. Private clinics, such as Kaiser Clinic and the Maui Medical Group, as well as private physicians, also provide health care services to island residents and visitors.

Maui Memorial Medical Center, as with other state and private health care providers, is subject to insufficient funding, shortages of acute care beds and difficulties in hiring staff. The shortage of acute care beds is critical, with occupancy generally over 90 percent. Visitors to Maui use approximately 5 to 10 percent of the total beds at the hospital.

4.19.2 ALTERNATIVE ANALYSIS

The proposed improvements and the no-action alternative will not have an impact on Maui's health care system.

4.20 SCHOOLS

4.20.1 EXISTING CONDITIONS

The State Department of Education (DOE) administers the Baldwin educational complex in the Wailuku-Kahului area and Maui High School. These facilities consist of elementary, intermediate and high schools. In 1990, the Baldwin complex had an enrollment of 6,400 students. Projected enrollment for the Baldwin complex for 1996 is 8,358 students. The 1990 total island-wide school capacity was 13,789 students, while total projected enrollment for 1996 is 17,066 students. The DOE projects additional classroom facilities will be required to accommodate the forecast student population. New elementary schools in Wailuku are helping to alleviate some of the shortfall in classrooms.

4.20.2 ALTERNATIVE ANALYSIS

The proposed improvements and the no-action alternative will not have an impact on the school system.

4.21 RECREATIONAL FACILITIES

4.21.1 EXISTING CONDITIONS

Most recreational activities in the vicinity of Kahului Harbor are ocean related and occur along the coastline. The existing beaches, such as Hoaloha Park, are within Kahului Harbor and used for fishing, beachcombing, and canoeing. Spear fishing and fish collecting can be performed when water conditions allow. As stated above, there is a canoe race course near Pier 2 offshore of Hoaloha Park.

Kahului Harbor Park, located on the fill area of the west breakwater, is maintained by the Maui County Department of Parks and Recreation. A small boat ramp is also located near the park. This area of the Harbor is generally used by fishermen, surfers and limu pickers. Swimming is not popular in the harbor due to the murky water and rocky bottom. During the interview process of this study, it was noted that the water appeared cleaner now that Maui Land and Pine is no longer discharging into the Harbor. Maui County also owns and maintains Keopuolani Park which is located South of and across the street from Kahului Harbor Park, and stretches from Kahului Beach Road to Kaahumanu Avenue.

As Kahului Harbor is a commercial harbor, there are conflicts with existing recreational uses as evidenced in the comments relating to the development of Pier 2C. This is an existing impact and will continue to worsen as both maritime operations and recreational uses increase. Under the Hawaii Revised Statutes Chapter 266-1, a commercial harbor “*means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.*” Current security measures also enlarge the area restricted to commercial vessels only and may close the Harbor to all users except for authorized users.

4.21.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

The Pier 1D, Piers 3 and 4, the Puunene Storage Yard, and the Pier 1 comfort stations, waterline and sewer line improvements will not have an impact on recreational facilities.

No-Action Alternative

The existing conflicts with recreational users within the Harbor limits will continue to exist and possibly increase in relation with the forecast vessel demand.

4.22 SURFACE TRANSPORTATION SYSTEM

4.22.1 EXISTING CONDITIONS

In the vicinity of the proposed projects, the major surface streets are Kaahumanu Avenue, Puunene Avenue, Hobron Avenue and Hana Highway. Other surface streets include Wharf Street, Ala Luina Street and Second Street (See Figure 4). Hana Highway and Kaahumanu Avenue function as the major roadway in the area, serving both regional and local vehicular traffic. The following is a brief description of the existing roadways.

- Hobron Avenue. Hobron Avenue is a short two-lane roadway connecting Hana Highway and Kaahumanu Avenue to Kahului Harbor (through Ala Luina Street). A number of Harbor-related uses are on this street, with resultant large volumes of truck traffic. Access to the Hobron Avenue area is awkward, with left-turns into the area permitted via the Hana Highway-Kaahumanu Avenue intersection and left-turns out of the area restricted to the Hobron Avenue-Hana Highway intersection. Right-turns in/out are permitted at both intersections.
- Puunene Avenue. Puunene Avenue is a State roadway that extends from the Kahului Harbor area south to the Puunene community. In Puunene, it connects to Mokulele Highway to provide access between the Kihei-Wailea area and Kahului. The roadway provides one lane in each direction for most of its length.
- Wharf Street. Wharf Street is a short two-lane roadway that serves as one of the primary entrances to the Harbor from Kaahumanu Avenue.
- Ala Luina Street. Ala Luina Street is the Harbor's internal roadway that links Hobron Avenue and Wharf Street. It is a two-lane roadway that snakes through the Harbor connecting Piers 1, 2 and 3 with the external circulation roadways.
- Perimeter Road. The Perimeter Road provides access along the coastline from Hobron Avenue / Ala Luina Street to the container storage yard on Pier 1.

Table 4-1 lists the intersections in the vicinity of the proposed projects and identifies the control at the present time.

**TABLE 4-1
MAJOR INTERSECTIONS NEAR KAHULUI HARBOR**

Intersection	Control Device
Hobron Avenue / Ala Luina Street	Stop Sign
Hobron Avenue / Amala Street	Stop Sign
Hobron Avenue / Kaahumanu Avenue	Signalized
Kaahumanu Avenue / Wharf Street	Signalized
Kaahumanu Avenue / Puunene Avenue	Signalized
Kaahumanu Avenue/Maui Beach Hotel & Maui Palms Hotel/Lono Avenue	Signalized

The Maui Long-Range Land Transportation Plan (1997) presents recommendations to the roadway network near the Harbor which should be in place by 2020. These improvements include:

- the widening of Puunene Avenue to four lanes from Kaahumanu Avenue to Mokulele Highway; and
- the widening of Hana Highway to six lanes from Kaahumanu Avenue to Dairy Road.

The analysis of existing ground traffic conditions is presented for the morning and afternoon commute peak hours. The commute peak hours represent the highest traffic volumes on most major roads within the Harbor’s vicinity. The analysis for roadway intersection is based on the *Highway Capacity Manual*, which uses a calculation of a volume capacity ratio and delay to relate to a Level of Service (LOS). The LOS has six levels, A through F, which relate to driving conditions from best to worst. LOS A represents free-flow conditions with no congestion, while LOS F represents severe congestion with stop and go conditions. LOS D is typically considered acceptable peak hour conditions in urban areas.

Past studies have found that the major roadway intersections in the vicinity of the Harbor are operating at a relatively acceptable level of service. In 1994, the Kahului Airport traffic study found that the intersection of Hobron Avenue/Kaahumanu Avenue had a LOS A during the morning peak hour and a LOS B for the afternoon peak hour. This intersection LOS would remain the same even with the 2010 forecast (Airport's traffic study) increase in traffic. A study in 1995 and 1997 found that the Wharf Street/ Kaahumanu Avenue intersection was operating at a LOS A for both morning and afternoon peak hours. The 1995 study also found that the intersection of Puunene Avenue/Kaahumanu Avenue had a LOS B for the morning peak hour and a LOS C for the afternoon peak hour. In 2000, a study of the signalized intersection of Kaahumanu Avenue/Maui Beach Hotel & Maui Palms Hotel Driveway/Lono Avenue operated at LOS B in the morning peak hour and LOS C during the afternoon peak hour.

The results shown in Table 4-2 are from the Hobron Triangle Retail Development (Reference 12) for the intersection at Kaahumanu Avenue and Hobron. The study showed that the intersection peak hour movements occurred from 6:30 a.m. to 8:30 a.m. and from 3:00 p.m. to 5:30 p.m. The survey data was recorded in October 2002.

TABLE 4-2
LEVEL OF SERVICE ANALYSIS FOR
KAAHUMANU AVENUE AND HOBRON AVENUE
(from Hobron Triangle Retail Development)

	Morning Peak Hour			Afternoon Peak Hour		
	Volume	Delay (sec.)	LOS ¹	Volume	Delay (sec.)	LOS
Northbound Left, Thru & Right	138	7.5	A	167	8.0	A
Southbound Left, Thru & Right	110	7.6	A	275	7.5	A
Westbound Left, Thru & Right	2	10.2	B	4	11.8	B
Eastbound Left & Thru	106	12.5	B	89	15.7	C
Eastbound Right	13	8.7	A	32	9.9	A

1. Level of Service (LOS) is calculated using the operations method described in the *Highway Capacity Manual*. LOS is based on delay.

The internal roadway consists of basically Ala Luina Street linking the internal traffic to Hobron Avenue and to Wharf Street. Congestion within the Harbor is localized and dependent on the vessel arrival, type of cargo or passengers, and volume. The major congestion areas are at Pier 1 with the cruise ship traffic and unloading of the overseas cargo vessels, and at Pier 2 during the unloading and loading of the interisland barge.

The “Superferry” traffic impacts will occur with or without the proposed improvements. These impacts will occur during a short interval of approximately 30 minutes, once per day. The traffic is currently expected during the off-peak hours, and will be primarily limited to Wharf Street or Hobron Avenue.

4.22.2 ALTERNATIVE ANALYSIS

Proposed Development Alternatives

The traffic from the Harbor in general will increase due to the expected demand with or without the project. There may be short-term construction impacts to the Harbor operations and therefore, care will be given to plan and schedule harbor and vehicle traffic during construction so as to not interrupt bulk fuel deliveries.

The use of Pier 4 by a ferry operation would create a short-interval of increased traffic either on Hobron Avenue and/or Wharf Street and their respective intersections. The proposed improvements, themselves, will not increase traffic when compared to the No-action Alternative, and due to the short-interval of the ferry traffic, there will be no significant impacts.

No-Action Alternative

The no-action alternative will have no impact on the surface transportation system. The existing problems and congestion will remain. Traffic will increase due to the forecast increase of population, passengers and cargo demand to Maui.

SECTION 5.0 DETERMINATION, FINDINGS, AND REASONS SUPPORTING DETERMINATION

Based on the foregoing analysis, the preferred alternative(s) of the proposed project includes:

- Pier 1 extension (Pier 1D);
- Pier 1 comfort stations and sewer line (exempt project);
- Pier 1 waterline;
- Pier 3 expansion (including dredging between Piers 1 and 2);
- new Pier 4, which may be constructed in phases as funds become available; and
- the structural pavement, access bridge and utilities at “Puunene Yard.”

The selection of the Master Plan configuration for Piers 3 and 4 or the combined linear Pier 3 and 4 will be dependent on funding and the type of vessel which will be used in future operations. The construction of Pier 2C improvements is not included in the proposed project. The DOT and its Director have agreed to remove the construction of Pier 2C from consideration due to comments received from the canoe clubs which utilize the Kahului Commercial Harbor for practices and regattas.

The proposed project (preferred alternatives) will not have any significant impact on the environment and, therefore, preparation of an Environmental Impact Statement is not required. The preferred alternatives are compatible with the existing and future land uses and activities in the area. The applicant will comply with applicable statutes, ordinances and rules of the Federal and State governments. Therefore, this document constitutes a Notice of a Finding of No Significant Impact (FONSI). The “Significance Criteria,” Section 12 of the Hawaii Administrative Rules, Title 11, Chapter 200, “Environmental Impact Statement Rules” were reviewed and analyzed. Based on the analysis, the following was concluded for each criteria (*italicized*).

(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.

The proposed improvements are located within the boundaries of Kahului Commercial Harbor. The land area consists primarily of previously graded and filled land in an Urban land use

area. The specific area is covered with sparse introduced grasses that provide little, if any, habitat for native wildlife. No significant natural resources would be destroyed or lost. No surface cultural remains were identified on the site. If subsurface remains or sites are uncovered, work will stop and these resources will be evaluated by State archaeologists for their significance and a determination made as to their disposition.

The area for the improvements for Pier 1D, Pier 3 and Pier 4 are submerged areas which have been disturbed by previous Harbor construction and will not have an impact on natural or cultural resources.

(2) Curtails the range of beneficial uses of the environment.

The action will not curtail the range of beneficial uses of the environment. Instead it will allow the Harbor to meet existing and forecast demands and benefit the local economy. Also the dredging will allow the OPA 90 petroleum vessels to use Kahului Commercial Harbor in an efficient and cost effective manner.

(3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

The proposed action does not conflict with the State's long-term environmental policies or goals and guidelines. The State's environmental policies and guidelines are set forth in Chapter 344, Hawaii Revised Statutes, "State Environmental Policy." Two broad policies are espoused, conservation of natural resources and enhancement of the quality of life. With regard to the former, the proposed project would not consume significant natural resources. With regard to the latter, it will provide a port that will be able to meet the existing and forecast demand and allow the import and export of goods that are needed and requested by the State's population.

(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State.

The proposed action will provide a positive effect on the economic and social welfare of the community in allowing the efficient import and export of goods at the port. In addition, with the growth in the cruise ship industry, the proposed actions will provide facilities for these activities to continue and co-exist with other Harbor users. The no-action alternative will have a detrimental affect to the economic welfare of the community, as goods and passengers which flow through the

harbor would be delayed. In addition, if the harbor basin is not dredged it will severely limit the ability to transport bulk petroleum products to Maui. The proposed improvements will not have a significant impact on cultural practices of the community or the state.

(5) Substantially affects public health.

The proposed action does not impact public health or public health facilities.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities.

The proposed action is not expected to have any secondary impacts. The proposed project is not expected to result in any foreseeable changes or effects on population or public facilities. The proposed action is planned to meet the forecast needs of Maui.

(7) Involves a substantial degradation of environmental quality.

No significant degradation of environmental quality is anticipated and no adverse environmental impacts are expected. Short-term construction noise, air quality and construction traffic would have a minor impact on the nearby surroundings. There will be impact on the water quality inside of the construction barriers, but mitigation measures shall prevent impact to the areas surrounding the construction sites.

(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.

The proposed action does not involve a commitment to larger actions, nor would the cumulative impacts result in considerable effects on the environment. The proposed action is self-contained and of independent utility. The incremental impact of the action when added to past, present and reasonably foreseeable future actions has been considered. The proposed action is independent and not a commitment to the future long-term actions represented in the 2025 Kahului Commercial Harbor Master Plan.

(9) Substantially affects a rare, threatened, or endangered species, or its habitat.

No rare, threatened, or endangered species or their habitats would be affected. There are no rare, threatened or endangered species on the site. The site is located within Kahului Harbor and within a developed area.

(10) Detrimentially affects air or water quality or ambient noise levels.

Air quality, water quality, and ambient noise would not be detrimentally affected in the long-term. Construction activities may have the potential to affect air quality, water quality and ambient noise levels on a short-term basis. Engineering controls would be incorporated into the proposed project to minimize the impacts and to ensure regulatory compliance.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

The project will comply with development standards for construction in the flood and tsunami zone. Grading of the project would ensure that there would be no runoff, however, there will be runoff from the piers. Therefore, best management practices will be implemented to the maximum extent practical to control stormwater runoff and to prevent pollutants from discharging off the project site during construction and during harbors operations.

(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.

The proposed improvements, preferred alternative, are within the Kahului Harbor Historical District, but will not have any impact on this Historical Site. There will be no effect on scenic vistas or view-planes in county or State plans or studies. The proposed project does not have a direct impact on vistas or view-planes.

(13) Requires substantial energy consumption.

The proposed project will not require substantial energy consumption. The majority of the energy used would be during construction and would be a short-term impact. Energy-conserving measures will be incorporated into the project design, as practical.

SECTION 6.0 LIST OF PREPARERS

The following are the persons responsible for the preparation of this document.

CONSULTANT

The following is a list of the members of the consultant team which prepared the EA.

Prime Consultant - Edward K. Noda and Associates, Inc.

- Mr. Brian T. Ishii, P.E., Principal-in-Charge
Education: B.S., University of Hawaii, 1978, Civil Engineering
M.S., University of Hawaii, 1982, Ocean Engineering
Twenty years of engineering experience with fifteen years of experience in master planning and environmental planning. Recent projects include master plans and environmental studies for Honolulu International Airport, Kalaupapa Airport, Dillingham Airfield, and Kahului Airport.

- Mr. Aaron H. Setogawa, Environmental Planner
Education: B.A., Columbia University, 1974, American History
Graduate Studies: Urban and Regional Planning, Pratt Institute; Law, University of Hawaii
Twelve years of planning experience with three years of experience in master planning and environmental planning of airports. Recent projects include the Stormwater Monitoring Program for Honolulu International Airport and the Environmental Assessment for the Department of Transportation, Highways Division's Kauai District Baseyard Complex.

- Mr. Dayton E. Fraim, P.G., P.E., Civil Engineer
Education: B.Sc. in Geology and Geophysics, University of Hawaii, 1973

Twenty years of experience in geotechnical engineering, groundwater hydrology, and environmental work. Among his prior projects was the coordination of soil and materials handling and remediation at the Reef Runway Soil Management Facility at the Honolulu International Airport.

Archaeology, Historical and Cultural Resources Studies - International Archaeological Research Institute, Inc. (IARI). Established in 1984, IARI has completed over ninety projects in Hawaii.

Water Quality - Oceanic Institute. The Oceanic Institute is a nonprofit research foundation dedicated to the advancement and transfer of technology in aquaculture, marine sciences and the environment. The Oceanic Institute performs basic research and provides professional services. The majority of the environmental and analytical services are provided by the Fisheries and Environmental Sciences Program, one of six departments within the Institute.

Infrastructure - R.T. Tanaka Engineers, Inc. Established in 1977 with expertise in infrastructure design, transportation system design and land surveys.

SECTION 7.0 REFERENCES

1. State of Hawaii, Department of Transportation, Harbors Division, *Kahului Commercial Harbor, 2025 Master Plan*, September 2000.
2. State of Hawaii, Department of Transportation, Harbors Division, *Final Environmental Assessment, Finding of No Significant Impact, Kahului Inter-island Cargo Facility*, December 8, 1997.
3. United States Department of Agriculture, *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*, August 1972.
4. SMS Research and Marketing Services, Inc., *Economic Impact Assessment of Hawaii's Harbors*, 1997.
5. U.S. Department of Transportation, Federal Aviation Administration and State of Hawaii, Department of Transportation, Airports Division, *Final Environmental Impact Statement*, September 1997.
6. Letter State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division to International Archaeological Research Institute, Inc., Log No. 2003.1980, Doc. No. 0310MK06.
7. Letter State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division to Department of Transportation, Harbors Division, Log No. 2004.0954, Doc. No. 0403st17, March 31, 2004.
8. State of Hawaii, Department of Transportation, Harbors Division, "*Final Environmental Assessment, Pier 1C Extension, Kahului Commercial Harbor*," January 2000.
9. R.M. Towill Corporation, "*Final Environmental Assessment, Kahului Commercial Harbor, Pier 1C Mooring Dolphin*," March 2004.
10. U.S. Army Corps of Engineers, Honolulu District, "*Maui Second Commercial Harbor Navigation Study*," April 1995.
11. Website, <http://hawaiiisuperferry.com/>, 2004.

12. Phillip Rowell and Associates, "*Traffic Impact Assessment for Hobron Triangle Retail Development*," July 10, 2004.
13. State of Hawaii, Department of Agriculture, Plant Quarantine Branch, "*Kahului Airport Pest Risk Assessment*," November 2002.
14. USGS, "*Recent Hydrologic Conditions, Iao and Waihee Aquifer Areas, Maui, Hawaii (summary)*," November 2004.
15. Ernest K. Hirata and Associates, Inc, "*Soils Investigation Barge Terminal Improvements Phase IB & II, Kahului Harbor, Kahului, Maui, Hawaii*," November 5, 1997.
16. Walter Lum Associates, Inc., "*Bulkhead and Other Improvements at Kahului Harbor, Maui, Job H.C. 3046, Soil Exploration Report*," December 12, 1975.

SECTION 8.0
LIST OF AGENCIES, ORGANIZATIONS AND
INDIVIDUALS CONSULTED

8.1 PRE-CONSULTATION

The agencies and organizations listed below were contacted during the preconsultation phase of the Environmental Assessment. The agencies and organizations which are marked with an asterisk (*) also participated in the Kahului Commercial Harbor 2025 Master Plan working meetings.

U.S. Government Agencies

United States Army Corps of Engineers, Honolulu Engineers District *

State of Hawaii Agencies

Department of Business, Economic Dev. & Tourism, Office of Planning

Department of Health

Department of Land and Natural Resources

Department of Land and Natural Resources, Division of Boating & Ocean Recreation *

Department of Land and Natural Resources, State Historic Preservation Division

Department of Transportation, Airports Division

Department of Transportation, Committee on Transportation

Department of Transportation, Harbors Division

Office of Hawaiian Affairs

County of Maui Agencies

OPWWM *

County Council

Council Member Dain Kane *

Department of Parks and Recreation *

Department of Public Works and Waste Management

Department of Water Supply

Office of Economic Development *

Department of Planning *

Private Agencies and Organizations, and Individuals

A & B Properties *

American Hawaii Cruises/United States Line *

Ameron Hawaii *

Brewer Environmental Industries LLC *

Chevron USA, Inc.

CSX Lines *

DeCoite Trucking *

Equilon Enterprises LLC, Formerly Shell Oil Company *

First Hawaiian Bank, Kahului Branch

Gas Company

H.A.L. Westours *

HC&S *

Haleakala Storage & Transfer, Inc., A Division of Tri-Isle, Inc.

Harbor Lights Condominium

Hawaiian Canoe Club *

Hawaiian Cement *

Island Movers, Inc. *

Kahului Trucking & Storage *

Lanai Oil *

MHR – Maui(McCabe Hamilton & Renny Co., Ltd.) *

Matson Navigation Company *

Maui Beach Hotel

Maui Chamber of Commerce *

Maui Contractors Association *

Maui County Farm Bureau *

Maui Economic Development Board *

Maui Electric Company *

Maui Hotel Association *

Maui Land and Pineapple Company, Inc. *

Maui Oil Company, Inc. *

Maui Petroleum, Inc.

Maui Trailer Boat Club *

Polynesian Adventure Tours *

Paul, Johnson, Park & Niles Attorneys at Law Corp. *

Roberts Hawaii *

Sause Brothers Ocean Towing Co., Inc. *

Sniffen's Express, Inc. *

Tesoro *

Trans Hawaiian *
Valley Isle Motors *
Valley Isle Produce
VIP Produce
Wailuku Main Street Association *
Waldron Steamship *
Young Brothers *

8.2 AGENCIES, ORGANIZATIONS AND INDIVIDUALS RECEIVING DRAFT ENVIRONMENTAL ASSESSMENT

The following organizations, agencies and individuals were provided copies of the Draft Environmental Assessment for their review and comment. Those parties that provided comments are marked with an asterisk (*) and their written comments and the DOT response letters are presented in Appendix E.

STATE OF HAWAII

Kahului Public Library
Department of Business, Economic Development and Tourism, Office of Planning
Department of Health (3 copies)
Department of Land and Natural Resources (5 copies) *
Department of Land and Natural Resources, Historic Preservation Division
Office of Hawaiian Affairs
Office of Environmental Quality Control*

COUNTY OF MAUI

Department of Planning *
Department of Parks and Recreation*
Department of Public Works*
Department of Water Supply*

ORGANIZATIONS AND INDIVIDUALS

Dowling Company
Charles Toguchi
Dean Frampton (project description only)*
Karen Chun, Malama Customs Paddles and Na Kai Ewalu*
David Niles
Jeff Parker, Tropical Orchid Farms*
Jan Roberson, Surfrider Foundation*

8.3 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS COMMENTING ON DRAFT ENVIRONMENTAL ASSESSMENT

The following is a list of the agencies, organizations and individuals which sent comment letter on the Draft Environmental Assessment. Those marked with ** are those which had no comment. The comment letters and response letters are presented in Appendix E. The most common issues in the comments letters are:

- Alien Species Introduction
- Superferry - growth impacts
 - Traffic
 - Drug trafficking
- Cultural Impacts of Pier 2C

LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS PROVIDING WRITTEN COMMENTS TO THE DRAFT ENVIRONMENTAL ASSESSMENT

STATE OF HAWAII

Dierdre S. Mamiya, Administrator, Department of Land and Natural Resources, Land Division
Department of Land and Natural Resources, Commission on Water Resource Management
Administrator**
Department of Land and Natural Resources, Division of Forestry and Wildlife Administrator
Department of Land and Natural Resources, Division of Aquatic Resources Chief Engineer
Department of Land and Natural Resources, Engineering Division
Department of Land and Natural Resources Land – Maui District Land Office**
Department of Land and Natural Resources, Division of State Parks**
Genevieve Salmonson, Director, Office of Environmental Quality Control

COUNTY OF MAUI

Glenn T. Correa, Director, Department of Parks and Recreation**
Michael W. Foley, Department of Planning
George Y. Tengan, Director, Department of Water Supply
Alan M. Arakawa, Mayor, Office of the Mayor
Robert Parsons, Executive Assistant for Environmental Concerns

AGENCIES, ORGANIZATIONS AND INDIVIDUALS

List of Paddlers supporting the preservation of Kahului Harbor

Daniel Grantham, Chair, Sierra Club Maui

David Ward, Frampton & Ward, LLC

Dean Kimo Frampton

Dick Mayer

Dudley Smith, Smith Builders

Emalia Brown

Frank Gummich

Greg and Masako Westcott

Gregory Ball

Hawaiian Kamali'i Inc. , dba Hawaiian Canoe Club

Mary Akiona, Executive Director

Iokepa K. Naeole, Cultural Director

Students of Hui Malama Home School

Richard P. Nu'u, Head Coach – Men's Program

Ted Fritzen, President

Isaac Davis Hall, Attorney At Law, for the Kahului Harbor Coalition, Jeffery Parker, Gregory Westcott, et.al.

Jan Roberson, MPA, Maui Chapter Chair, The Surfrider Foundation

Jeffrey Parker, President, Tropical Orchid Farm, Inc

John B. Guard IV, Broker in Charge, Coldwell Banker Island Properties

Karen Chun

Kay Badayos

Keri C. Mehling, President, Maui County Hawaiian Canoe Association

Kekoa Catherine Enomoto

Mark Sheehan

Patty Rycroft

Roger Crouse

Rory Frampton

Sally Raisbeck

Stewart Kawakami

Walter B. Quisenberry

Zoe Norcross-Nu'u

8.5 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS REQUESTING TO BE CONSULTED PARTY (IF AN ENVIRONMENTAL IMPACT STATEMENT IS PREPARED)

The following parties have requested to be consulted parties¹². However, the consulted party status is only applicable to the preparation of an Environmental Impact Statement (EIS). Therefore, if an EIS is prepared, these agencies, organizations and individuals should request to be consulted parties at that time. However, at this point in time, the determination is to be a Finding of No Significant Impact and an EIS will not be prepared.

Daniel Grantham, Chair, Sierra Club Maui
Mark Sheehan
Sally Raisbeck

¹² Consulted parties under the HRS 343 are applicable to Environmental Impact Statements and are defined under the Hawaii Administrative Rules, 11-200-15 (2).