ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN)

KAHULUI COMMERCIAL HARBOR
2030 MASTER PLAN

Prepared for:

State of Hawaii Department of Transportation
Harbors Division

Prepared by:

February 2007

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FIGURES

ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
CO	Carbon monoxide
CWRM	Commission on Water Resources Management (State)
CWS	Central Water System
dBA	Decibels on the A-weighted scale
DLNR	Department of Land and Natural Resources (Hawaii)
DOA	Department of Agriculture (Hawaii)
DOBOR	Division of Boating and Ocean Resources (DLNR)
DOT	Department of Transportation (State of Hawaii)
DWS	Department of Water Supply
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
H_2S	Hydrogen sulfide
HAR	Hawaii Administrative Rules
HRS	Hawaii Revised Statutes
MECO	Maui Electric Company
mgd	million gallons per day
MHUG	Maui Harbors Users Group
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act

NMFS	National Marine Fisheries Service
NO_2	Nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
O_3	ozone
Pb	lead
PM	particulate matter
ro/ro	roll-on/roll-off
SO_2	Sulfur dioxide
State	State of Hawaii
TMDL	Total Maximum Daily Loads
TMK	Tax Map Keys
UBC	Uniform Building Code
UIC	Underground Injection control
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WRF	Wastewater Reclamation Facility

1 APPLICANT

The applicant is the State of Hawaii (State) Department of Transportation (DOT).

2 APPROVING AGENCY

The accepting authority is the State DOT.

3 AGENCIES, CITIZEN GROUPS, AND INDIVIDUALS CONSULTED

This Environmental Impact Statement (EIS) is being prepared in accordance with the National Environmental Policy Act (NEPA) and Hawaii's Environmental Impact Statement law (Hawaii Revised Statutes, Chapter 343 [HRS 343]). The agencies and groups consulted to date include Federal, State, and County agencies, and interest groups. These parties will continue to be consulted during the preparation of the Draft EIS. Agencies with an asterisk (*) next to their names were consulted through participation in harbor users group meetings.

Federal Agencies

U.S. Army Corps of Engineers (USACE)*

National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS)

U.S. Department of the Interior, Fish and Wildlife Service (USFWS)

U.S. Environmental Protection Agency (USEPA)

U.S. Coast Guard (USCG)*

State Agencies

Hawaii Department of Land and Natural Resources (DLNR)*

Hawaii Department of Transportation (DOT)*

Hawaii Department of Agriculture (DOA)*

County Agencies

Maui County Mayor's Office*

Maui County Council*

Maui County Department of Transportation*

Maui County Department of Planning*

Maui County Department of Public Works and Environmental Services*

Interested Parties

Maui Electric Company (MECO)

Maui Harbor Users Group, including (in addition to agencies identified above):

Alexander and Baldwin Properties

Hawaii Pilots Association

Hawaii Superferry

Hawaiian Canoe Club

Hawaiian Cement

Hawaiian Commercial & Sugar Company

Hawaiian Tug and Barge

Kahului Trucking and Storage Inc.

Matson

Maui County Farm Bureau

Maui Trailer Boat Club

McCabe Hamilton & Renny Co., Ltd.

North West CruiseShip Association

Ocean Tourism Coalition

Princess Cruises

Smith Maritime

The Gas Company

Young Bros.

4 GENERAL PROJECT DESCRIPTION

Following is a summary of the proposed project.

a. Physical Setting

The subject property consists of Tax Map Keys (TMKs) 3-7-1: Parcels 21, 22, and 23; 3-7-8: Parcels 1, 2, 3, 4, 6, 28, and 29; and 3-7-10: Parcels 2, 3, 6, 13, 15, 17, 18, 22, 25, 26, 27, 32, 33, 34, 37, and 38, located in Kahului, in the district of Wailuku, on the north side of the island of Maui (see Figure 1). The *Kahului Commercial Harbor 2030 Master Plan* project area comprises the East Breakwater, Piers 1A, 1B, 1C, 2, and 3 with associated terminals and storage areas (the east side), the West Breakwater, and land bounded by Ka‘ahumanu Avenue and the shoreline between Pu‘unene Avenue and Hobron Avenue. The total area of the subject property is approximately 448 acres, of

which 374 acres are the submerged lands of the harbor. Water depths within the harbor are up to 35 feet (in the turning basin).

The east side of the harbor encompasses about 53 acres of improved land and currently serves as the operational portion of the harbor and parcels leased to industrial and commercial users. The West Breakwater comprises approximately 21 acres of undeveloped land. The Hawaii DLNR operates a recreational boat launch on the West Breakwater. Under Executive Order (EO) 3064, the West Breakwater was transferred to the County of Maui; however, this EO was cancelled in September 2006, and ownership reverted to the State. The cancellation allows approximately 3.6 acres to be used by DLNR Division of Boating and Ocean Resources (DOBOR) for the existing boat ramp and future haul out facility. This DLNR recreational facility is outside the project area.

The subject property is situated in an urbanized, industrial setting including the towns of Kahului and Wailuku. The harbor is approximately one mile west of the Kahului Airport. A power plant, petroleum storage facilities, and commercial businesses border the harbor to the east. Kanaha Pond Wildlife Sanctuary is a conservation area approximately one-half mile east of the harbor. Land south of the harbor along Ka‘ahumanu Avenue is primarily commercial, including three shopping centers and two hotels. Recreational areas to the south include canoe *hale* and beaches. An oceanfront roadway runs to the west of the harbor. Commercial and residential areas are inland of the roadway, west of the harbor.

b. History and Current Harbor Use

One of ten State-managed commercial harbors in Hawaii, Kahului Commercial Harbor is the busiest deep-draft neighbor island commercial harbor. It is the only commercial harbor on the island of Maui. Development of harbor facilities at Kahului Bay began with construction of the first warehouse in 1863, and the first landing was constructed in 1879. Intensive development of the commercial harbor commenced in the early part of the twentieth century as the sugar industry grew. By 1910, improvements such as an 1,800-foot breakwater on the east side, a 40-foot tall lighthouse, and a 200-foot pier had been constructed, and the turning basin had been dredged. The harbor basin has been increased in size and depth over the years in response to changes in vessel sizes and increased cargo volumes. Port facilities have also changed over the years to accommodate changes in technology, cargo types, and cargo volumes. Currently, the harbor basin is 2,050 feet wide by 2,400 feet long with a design depth of 35 feet. The entrance channel is 660 feet wide and 40 feet deep. The harbor is protected by breakwaters on the east and west side.

There are three piers at Kahului Commercial Harbor. While the following descriptions identify primary users of each pier, berthing within the State’s commercial harbors is generally not permanently assigned. Vessels entering port are directed to their berths according to the shoreside facilities required and the availability of berths.

Pier 1 is a multi-use pier approximately 1,760 feet long. The backup area includes 23.2 acres for cargo operations and storage, as well as a 1.2-acre shed. Primary uses for Pier 1

include overseas container and cruise passenger operations, and shipping of autos, sugar, molasses, sand, gravel, pineapple, tin plate, scrap material, fuel, and coal.

Pier 2 is approximately 870 feet long by 270 feet wide. The pier and adjacent land comprise a total of 21.4 acres for cargo and passenger operations. Primary uses for Pier 2 include inter-island container, roll-on/roll-off (ro/ro), and inter-island ferry passenger operations, as well as shipping of autos, dry cement, and propane gas.

Adjacent to and perpendicular to Pier 2, Pier 3 is approximately 480 feet long. The backup area is included with the total for Pier 2 above. Primary uses for Pier 3 include shipping of fuel, dry cement, sand, gravel, inter-island containers, and autos, and ro/ro operations.

Typically, the DOT Harbors Division reviews and updates existing master plans for its commercial harbors. An Environmental Assessment (EA) for the 2025 Master Plan improvements (2025 EA) was completed in 2005. Projects discussed in the 2025 EA and identified as existing, planned, or incorporated into that document include:

- Sewerline and comfort station improvements
- Pier 1C mooring dolphin construction
- Pier 1D extension
- Pier 1 water line
- Pier 3 expansion and Pier 4 construction, including dredging
- Pu‘unene Cargo Yard and access bridge

These projects, and possible harbor expansion areas at TMK 3-7-10: Parcels 1 and 36 for which an EA was completed in 2006, are considered part of the existing or baseline conditions for the purpose of the EIS evaluation. They are included in the “no action” alternative.

c. Purpose and Need for Proposed Action

Mission

DOT Harbors has developed plans for Kahului Commercial Harbor in furtherance of its mission, “to provide a safe, efficient, accessible, and inter-modal transportation system that ensures the mobility of people and goods, and enhances and/or preserves economic prosperity and the quality of life.” Such plans incorporate both long- and short-term objectives and are updated on a regular basis.

Objectives and Priorities

The *Kahului Commercial Harbor 2025 Master Plan* was developed through a planning effort that brought together commercial harbor users, other users of Kahului Commercial Harbor, and government agencies. That effort had the following objectives:

- Plan the proper development of Kahului Commercial Harbor, thereby facilitating maritime shipments of the essential commodities required by Maui’s citizenry;

- 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
- Minimize the impact on environmental quality and recreational opportunities contiguous with Maui's port facilities.

At stakeholder meetings in 2006, participants, organized as the Maui Harbors Users Group (MHUG), were asked to specify and prioritize objectives for the 2030 commercial harbor plan. Participants included commercial harbor users, harbor recreational users, public service agencies, and representatives of local economic development organizations and businesses. Working in small groups, MHUG members agreed that cargo operations deserve first priority in planning for Kahului Commercial Harbor. They recognized that both immediate problems and long-term demand deserved close attention. Several participants stressed that a 2030 master plan must lead to immediate action; critical components of the master plan should be undertaken within the next few years. Participants further agreed that some of their objectives were in tension or even conflict. Similarly, expansion or intensification of some activities could limit others' use of the harbor.

While all involved sought to accommodate the mix of commercial and recreational uses at Kahului, all of the small groups agreed to grant priority to commercial cargo. In most groups, discussion of a second harbor, for commercial or recreational use, arose in recognition that demand for space is likely to grow for both commercial and recreational uses.

Based largely on stakeholder input, the DOT Harbors Division has identified the following as primary objectives for the *2030 Kahului Commercial Harbor Master Plan*:

- Provide space and facilities to meet current and future demand associated with movement of cargo to and from Maui, while encouraging efficient, space-saving operations.
- Implement measures to reduce harbor congestion in the near future.
- Make space for operations of an interisland ferry and cruise ships within the harbor. (In response to MHUG concerns, the master plan allocated a single, new cruise ship berth at Kahului Commercial Harbor)
- Continue to respect recreational uses in Kahului Commercial Harbor.

Secondary objectives include:

- Separate cargo and passenger operations to enhance safety, efficiency, and visitor satisfaction with Maui.
- Develop multi-use facilities, providing Harbors Division the flexibility of interchangeable berth assignments in the event that vessels and demands change in the years to come.

The objectives of the current planning effort differ from earlier ones in two ways: (1) by explicitly prioritizing cargo over other commercial operations; and (2) by insisting on immediate actions as well as long-term projects.

Demand for Commercial Harbor Berths and Landside Area.

Kahului Commercial Harbor is the only commercial harbor serving the island of Maui. The bulk of the goods used by Maui's residents and visitors – food, clothing, building materials, cars, and fuel – are imported via the commercial harbor. Island exports – sugar, molasses, pineapple, finished goods, sand, and recycled materials – move through the commercial harbor. The total weight of cargo has reached 3.9 million short tons per year. In addition, cruise ships are estimated to have brought over 400,000 individuals to Maui in 2006.[1]

Both cargo throughput and cruise ship passenger traffic have been increasing in recent years. Official projections anticipate continued growth in Maui's economy, population, and visitor counts. Hence, demand for commercial harbor facilities at Kahului is forecast to continue to grow.

Operational space in the harbor is constricted. While berths are regularly assigned to particular operators, a number of different operators may use a berth. For example, both cruise and bulk sugar operations are scheduled for Berth 1-B. Under the current schedule, cruise ships need the berth for six days a week. However, bulk sugar loading takes two days. In order to accommodate both, changes in schedule or berthing must be made.

As demand for berth space increases, ships and barges must adapt their schedules or move on and off berths to accommodate others. Operators may need to load and unload at times when labor rates are higher. As berth occupancy increases, efficiency declines. Berth occupancy for Kahului Commercial Harbor has been estimated as approximately 59 percent on average, including both day and night working hours.[2] This level is high compared to mainland U.S. ports. The high berth occupancy rate tends to create inefficiencies, driving up the cost of harbor operations for shippers and hence for their customers.

d. Proposed Action and Alternatives

Changes to Kahului Commercial Harbor port facilities and harbor conditions are anticipated to continue as population growth, economic growth, and technological and operational changes in the maritime industry place greater demands on existing port facilities. As part of the 2030 Master Plan, several alternatives have been developed to address future requirements for Kahului Commercial Harbor. While alternative

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1 Cruise ships may either berth at Kahului Commercial Harbor or use tenders to send passengers to and from the Lahaina Boat Harbor. Kahului Commercial Harbor is currently used mainly by Hawaii-based cruise ships but other cruise ships dock there when space is available.

State of Hawaii Department of Business, Economic Development, and Tourism. 2007. Monthly visitor statistics. http://www.hawaii.gov/dbedt/info/visitor-stats/2006/Dec06.xls.

2 Mercator Transport Group. December 2005. *Hawaii Harbor Users Group Report on Port Facilities and Development Priorities.*

development occurs with likely users in mind, the State's policy of keeping berthing spaces multi-use will continue. A discussion of each alternative, including the "no action" alternative, is presented below:

Alternative A – Expand Piers 1, 2, and 4 for Cargo Operations; Develop West Breakwater for Passenger Operations

Under Alternative 1, West Breakwater development is proposed as terminals for the inter-island ferry and cruise passenger operations. Passenger operations should be relocated from Piers 1 and 2 to relieve existing congestion and to provide capacity for cargo growth through 2030 (Figure 2).

The existing harbor basin must be widened approximately 800 feet to allow safe navigation and access to the proposed cruise and ferry berths at the West Breakwater. An inner breakwater extension or bulkhead pier is required to limit wave action and surge at the West Breakwater. An extension of the East Breakwater is also required to limit wave action and surge currently affecting vessels navigating within the entrance channel and harbor turning basin, as well as vessels at berth.

Pier 1 is lengthened from 1,760 to 2,400 feet and the backup area is enlarged from 23.2 to 27.4 acres. Primary cargoes for Pier 1 would include overseas container operations, autos, sugar, molasses, sand, gravel, pineapple, tin plate, scrap material, coal, petroleum products, and future markets to be determined.

Pier 2 is lengthened from 870 to 1,200 feet and the backup area is enlarged from 21.4 to 29.1 acres. Primary cargoes for Pier 2 would be inter-island containers, autos, ro-ro operations, petroleum products, dry cement, and future markets to be determined.

Pier 3 is unchanged at 480 feet long. The backup area is included with the total for Pier 2 above. Primary cargoes for Pier 3 would include dry cement, sand, gravel, inter-island containers, autos, ro-ro operations, and petroleum products.

A new Pier 4 is constructed to provide berthing and facilities for liquid and dry bulk cargo, primarily fuel. Primary cargoes would include fuel, propane, dry cement, alternative fossil fuels (e.g., natural gas, liquid petroleum gas), and alternative non-fossil fuels (e.g., biofuels, hydrogen).

The proposed West Breakwater passenger terminals include two new piers (a 500-foot pier and a 1,200-foot pier) and approximately 22 acres of backup area for the cruise passengers, inter-island ferry passengers, and future markets to be determined.

Support facilities (such as roads, offices, infrastructure improvements, and security measures) would be constructed as part of this alternative.

Alternative B – Cargo at West Breakwater, Cruise and Ferry at Pier 2

In Alternative B, the West Breakwater is developed for cargo operations, and Pier 2 accommodates inter-island ferry and cruise passengers (Figure 3).

The existing harbor basin must be widened approximately 800 feet to allow safe navigation and access to the proposed cargo berths at the West Breakwater. An inner breakwater extension or bulkhead pier is required to limit wave action and surge at the West Breakwater. An extension of the East Breakwater is also required to limit wave action and surge currently affecting vessels navigating within the entrance channel and harbor turning basin, as well as the vessels at berth.

Pier 1 remains unchanged with a pier length of 1,760 feet, 23.2 acres for cargo operations and storage, and a 1.2-acre shed. Primary cargoes at Pier 1 include overseas container operations, autos, sugar, molasses, sand, gravel, pineapple, tin plate, scrap material, coal, petroleum products, and future markets to be determined.

Pier 2 is lengthened from 870 to 1,200 feet to berth a cruise ship, and a shed is constructed on the pier for cruise passenger processing. A total of 6.2 acres is dedicated for cruise operations, including busses, taxis, and rental cars. A portion of Pier 2 is demolished to allow berthing of the ferry at the end of the pier without impacting navigation within the existing harbor basin. The total area proposed for the ferry terminal is 4.4 acres. Access to the ferry is provided by a ramp. The remaining backup area adjacent to Piers 2 and 3, comprising 10.8 acres, is utilized for cargo operations and storage.

Pier 3 is unchanged at 480 feet long. The backup area is included with the total for Pier 2 above. Primary cargoes for Pier 3 are dry cement, sand, gravel, and petroleum products.

As in Alternative A, a new Pier 4 is constructed to provide dedicated and facilities for liquid and dry bulk cargo, primarily fuel. Primary cargoes would include fuel, propane, dry cement, alternative fossil fuels (e.g., natural gas, liquid petroleum gas), and alternative non-fossil fuels (e.g., biofuels, hydrogen).

The West Breakwater includes a new 1,200-foot pier and approximately 26 acres of backup area for inter-island containers, autos, ro-ro, other containerized breakbulk cargo operations, and future markets to be determined. Support facilities (such as roads, offices, infrastructure improvements, and security measures) would be constructed as part of this alternative.

No Action Alternative

The existing harbor basin is 2,050 feet wide by 2,400 feet long with a design depth of 35 feet. The entrance channel is 660 feet wide and 40 feet deep. The harbor is protected by breakwaters on the east and west side.

As described in Section 4b, Current Uses, there are three piers at Kahului Commercial Harbor. Pier 1 is a multi-use pier approximately 1,760 feet long. The backup area includes 23.2 acres for cargo operations and storage, and a 1.2-acre shed. Under the No Action Alternative, primary users and cargoes for Pier 1 would remain the same – overseas container and cruise passenger operations, and shipping of autos, sugar, molasses, sand, gravel, pineapple, tin plate, scrap material, fuel, and coal.

Pier 2 is approximately 870 feet long by 270 feet wide. The pier and adjacent land comprise a total of 21.4 acres for cargo and passenger operations. The primary users and cargoes for Pier 2 would stay the same under the No Action Alternative – inter-island containers, autos, ro-ro, inter-island ferry passengers and vehicles, dry cement, and propane.

Adjacent to and perpendicular to Pier 2, Pier 3 is approximately 480 feet long. The backup area is included with the total for Pier 2 above. Primary cargoes for Pier 3 would remain the same under this alternative – fuel, dry cement, sand, gravel, inter-island containers, autos, and ro-ro operations.

As construction of Pier 4 has already been approved, the new pier would be built under the No Action Alternative to provide berthing and facilities for liquid and dry bulk cargo, primarily fuel. Primary cargoes would include fuel, propane, dry cement, alternative fossil fuels (e.g., natural gas, liquid petroleum gas), and alternative non-fossil fuels (e.g., biofuels, hydrogen).

The No Action Alternative assumes no expansion of these existing facilities except for projects already planned and approved under the *2025 Master Plan Environmental Assessment*, as well as other actions.

5 SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT

a. Land Use Designations and Controls

The majority of the subject property is situated within the State Urban District and is zoned Industrial by the County of Maui. The West Breakwater is in the Conservation District-Resource Subzone. The subject property is located within the Special Management Area and is within the Wailuku-Kahului Community Plan.

b. Climate and Air Quality

Maui's tropical climate features mild temperatures throughout the year, typically ranging from the low 70 degrees Fahrenheit (70°F) in January, the coldest month to the mid-80°F during August, the warmest month. The trade winds blow from the northeast for the majority of the year, contributing to moderate humidity and infrequent severe storms. Rainfall is relatively light, and occurs mostly during the wet season from November to April. Halekala, a 10,000-foot mountain to the east of the project area, and the West Maui Mountains to the west generate a funneling effect which contribute to wind speeds of up to 40 to 45 miles per hour (mph) during normal trade wind conditions. Occasional strong southerly winds, known as Kona winds, occur during the winter months.

The USEPA has established National Ambient Air Quality Standards (NAAQS), 42 U.S. Code (USC) §7409, 40 CFR Part 50, for the following pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM-10), particulate matter up to 2.5 microns in diameter (PM-2.5),

ozone (O_3), and lead (Pb). Hawaii has an ambient air standard for hydrogen sulfide (H_2S), in addition to the pollutants identified above. NAAQS criteria, based on air monitoring data for the above pollutants, are used to designate all air regions within the U.S. into air quality categories for each pollutant: attainment, nonattainment, and unclassifiable. Regions that do not meet the NAAQS are classified as nonattainment; regions where air monitoring data results are better than the standard are classified as attainment. These standards, along with the State AAQS, provide the basis for air pollution control rules and permitting procedures. The island of Maui and the state of Hawaii are in attainment of Federal and State standards. Near Kahului Commercial Harbor, industrial, vehicular, and agricultural activities contribute to emissions of criteria air pollutants.

c. Marine Resources

Surveys for marine resources in and around the project area, including coral reef, benthic, and macroinvertebrate resources, will be conducted in preparation of the EIS, in accordance with the Fish and Wildlife Coordination Act (16 USC Sections 661-667). USFWS and NMFS will be consulted in accordance with Section 7 of the Endangered Species Act. Prior studies conducted for the *2025 Master Plan Environmental Assessment* identified the crab *Macrophthalmus telescopicus* as the most conspicuous inhabitant of the silty-sand bottom near the existing Piers 1 and 2. Other marine resources in the eastern part of Kahului Harbor include *Montipora* species of coral, striped mullet or *ʻamaʻama* (*Mugil cephalus*), big-eyed scad or *akule* (*Selar crumenophthalmus*), mackerel scad or *ʻopelu* (*Decapterus macarellus*), convict surgeonfish or *manini* (*Acanthurus triostegus*), herring (*Etrumeus micropus*), Hawaiian flagtail or *aholehole* (*Kuhlia sandvicensis*), giant trevalley or *ulua aukea* (*Caranx ignobilis*), and milkfish or *awa* (*Chanos chanos*).

Marine resources documented at the West Breakwater in a 1989 EIS prepared by the USACE included intertidal organisms such as *aʻama* crab (*Grapsus tenuicrustatus*), periwinkle (*Littorina* spp.), false opihi or *opihi awa* (*Siphonaria normalis*), and algae species (*Ulva* spp.). Fish identified in the area included the Hawaiian anchovy or *nehu* (*Encrasicolina purpurea*), white goatfish or *oama* (*Mulloides flavolineatus*), and *akule*.

d. Terrestrial Flora and Fauna

In preparation of the EIS, USFWS will be consulted in accordance with Section 7 of the Endangered Species Act and the Fish and Wildlife Coordination Act. Prior evaluations used to develop the *2025 Master Plan Environmental Assessment* and the 1989 USACE EA of the West Breakwater characterized the existing flora as predominantly landscaped plants and weeds. These included a mix of introduced and native species, such as beach naupaka, Bermuda grass, and tree heliotrope. Little faunal resources were identified in prior documents; some migratory birds such as wandering tattle (*Heteroscelus incanus*) and ruddy turnstone (*Arenaria interpres*) were identified on the West Breakwater. No endangered, threatened, or species of concern were identified in the area.

e. Natural Hazards

The harbor area is located in a V23 flood zone, as identified on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel 150003 0190D, as of June 1, 1981. This designation identifies the project site as within the area of the 100-year coastal flood, and indicates that it is within an area of flooding due to wave action (tsunami). Base flood elevations range from 10 to 18 feet.

Earthquakes typically originate from volcanic activity in Hawaii. Most volcanically generated earthquakes are relatively small; however, larger earthquakes can cause property damage. Kahului Commercial Harbor is in seismic zone 2B as established by the Uniform Building Code (UBC). The UBC characterizes the United States into zones ranging from one to four based on their relative seismic hazard, with one as the lowest and four as the highest seismic hazard area. The zones are used to determine seismic design loads on structures.

Hurricanes occur infrequently in Hawaii; however, damaging winds unrelated to hurricane activity can occur.

f. Geology, Topography, and Soils

Geologically, Maui is divided into East and West Maui, with Haleakala Volcano comprising the majority of East Maui, and the saddle isthmus in the center of the island (where Kahului is located) and the West Maui Mountains comprising West Maui. The project location is on the northeast side of the broad isthmus joining Haleakala and the West Maui Mountains.

Geologic conditions underlying the harbor include volcanic deposits, marine sediments, terrestrial sediments, and fill. The West Breakwater is composed of dredged marine sediments and fill. Lands adjacent to the harbor typically consist of sand dune deposits and lava flows.

The topography of the project area is relatively flat, and elevations range from sea level to approximately 20 feet above sea level. Depths to bottom within the harbor range from a few feet to greater than 30 feet.

Soils at the harbor are predominantly fill land, which typically consists of areas filled with material from dredging, upland excavation, garbage, and bagasse and slurry from sugar mills. Soils on lands adjacent to the property primarily consist of Puuone sand, a grayish-brown calcareous sand about 20 inches thick, underlain by grayish-brown cemented sand.

g. Groundwater and Surface Water Resources

Kahului Commercial Harbor is designated as Class A marine waters by HAR 11-54, and is identified as a zone of mixing by the State DOH. Class A waters are recommended for recreational purposes and aesthetic enjoyment. Other uses are permitted as long as they are compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. Kahului Bay (inshore of the breakwater) has been

listed as impaired for nutrients and turbidity by the DOH. Under section 303(d) of the Clean Water Act, Total Maximum Daily Loads (TMDLs) must be established for listed impaired water bodies, but they have not yet been established for Kahului Bay.

Surface waters in the vicinity of the project include Kanaha Pond Wildlife Sanctuary, a wetland complex approximately one-half mile east of the harbor, and drainage channels which direct storm water runoff into the harbor. Aside from Kanaha Pond Wildlife Sanctuary, which is a designated refuge, surface water in the area is designated as Class 2 inland waters, which are defined in Hawaii Administrative Rules (HAR) Title 11, Chapter 54 (11-54). Class 2 waters are recommended for agricultural and industrial water supply, compatible recreation, shipping, navigation, and propagation of fish and aquatic life.

The U.S. Army Corps of Engineers has delineated a portion of the unlined drainageway near Pier 2 as a wetland; however, additional studies will be undertaken to confirm the wetland status of this man-made drainageway.

Groundwater resources underlying the site include a basal aquifer in Honomanu Basalts. This aquifer, overlain by a caprock confining layer, is located at about 100 feet below ground surface in the project area. It is identified as a drinking water resource in some areas, but the likelihood of contamination from surface activities is low due to its depth below the surface. The project area is downgradient of the State of Hawaii DOH-established Underground Injection Control (UIC) line. The State of Hawaii UIC program was established to protect the quality of underground sources of drinking water from pollution by subsurface disposal of fluids.[3] The UIC line is the boundary between non-drinking water aquifers (generally seaward of the UIC line) and underground sources of drinking water (generally inland of the UIC line).

h. Socioeconomic Conditions

As the sole commercial port for the island of Maui, Kahului Commercial Harbor is a critical component of the island economy. Harbor operators have seen continuing growth in imports as the population increases and prospers. Maui has succeeded as a distinctive visitor destination, attracting many return visitors and part-time residents. Current projections to 2030 are for continuing growth:

- The county's resident population, approximately 140,000 in 2005, is expected to grow to 199,500 by 2030 (according to projections by the State Department of Business, Economic Development and Tourism).
- De facto population – the residents and visitors actually present in the county on any given day – is projected to increase to about 262,000 by 2030.
- The population is aging. The Maui County median age increased from 33.5 to 36.8 years between 1990 and 2000.
- Households are becoming smaller over time. The County average declined from 2.99 persons per household in 1990 to 2.91 as of 2000.

[3] Hawaii Administrative Rules, Title 11, Chapter 23. September 22, 1992.

- Wage and salary jobs are expected to increase by about 1.7 percent annually.
- Per capita income is projected to increase very little (in constant dollars).
- Visitor counts will increase by about 1.5 percent annually.
- With high occupancy rates, construction of new units is expected to resume, and the supply of visitor units will likely grow at 1 percent or more annually.
- The rates of growth in resident population, housing, and jobs are higher than the rate of growth for visitors. This means the Maui economy has diversified and is less driven by tourism than in the past.

Kahului is the center of transportation and commerce for Maui Island, as well as a major residential area. Commercial and residential development is expected to continue, leading to increasing use of the local roadways.

i. Traffic Conditions

A traffic study will be conducted and its findings disclosed in the draft EIS. This traffic study will include information on existing traffic conditions in and around the Kahului Commercial Harbor area, potential impacts associated with the proposed action and alternatives, and recommended mitigation for significant impacts.

j. Public Services and Infrastructure

Electricity is supplied to the harbor by MECO from electrical substations in the vicinity of the project area via overhead transmission lines on Kaahumanu Avenue, Wharf Street, Pu‘unene Avenue, and Hobron Avenue.

Potable water is supplied to the harbor via a 12-inch water main in Ka‘ahumanu Avenue, and distributed through a network of four- to eight-inch water lines. The projected potable water usage at the harbor is estimated to reach 0.04 million gallons per day (mgd) by the year 2010. The County of Maui Department of Water Supply (DWS) administers and operates the island’s water systems, and the harbor is served by the Central Water System (CWS). Water distributed via the CWS is drawn from four aquifers: Kahakuloa, Waihe‘e, Waikapu, and Iao. Of these, the harbor is served from the Iao aquifer, which has an estimated sustainable yield of approximately 20 mgd. The State Commission on Water Resources Management (CWRM) has designated the Iao aquifer as a Groundwater Management Area. The forecast future demand for all uses of the Iao aquifer is up to 30.5 mgd, which exceeds the sustainable yield. The county has initiated development of alternative water sources in East Maui to serve the island’s needs.

Solid waste from the harbor is collected by a private firm contracted by the State or users, and disposed of at the Central Maui Landfill. Wastewater from Kahului Commercial Harbor is sent to the Wailuku-Kahului Wastewater Reclamation Facility (WRF), located east of the harbor. The West Breakwater does not currently have wastewater infrastructure. Effluent is disposed of through injection wells. Discharge of sanitary wastewater from commercial passenger vessels is prohibited in the harbor, per HRS Chapter 342D, Section 102 (342D-102)

Police and fire services are provided by the County of Maui. In addition, a private company is retained by DOT Harbors to provide security on their property. Fire services are provided from the Kahului and Wailuku fire stations, located approximately two and three miles from the harbor, respectively. Harbor users must coordinate with County, State, and Federal law enforcement to address safety issues as needed.

k. Noise Environment

Normal activities at Kahului Commercial Harbor may generate high ambient noise levels 24 hours a day, seven days a week. Noise-generating activities include large truck engines, heavy equipment operations, ship loading and unloading using cranes, lifts, and other mechanical equipment, and ship and tugboat motors.

HAR 11-46 defines maximum permissible sound levels and provides for protection, control, and abatement of noise pollution from stationary noise sources and agricultural, construction, and industrial equipment. The maximum permissible sound levels in decibels on the A-weighted scale (dBA) for day and night at the property line where the activity occurs in Class C, industrial zoning, is 70 dBA. The maximum permissible sound level for impulsive noise is defined by DOH as 10 dBA above the 70 dBA limit. Maximum permissible sound levels are not to be exceeded more than ten percent of the time in a 20-minute period without a permit or variance. No sensitive noise receptors have been identified within or adjacent to the proposed project area.

l. Archaeological Resources

Archaeological and cultural assessments were conducted for the *Kahului Commercial Harbor 2025 Master Plan*. Archaeological resources are not likely to be found at the harbor property, as the majority of the site has been created from excavated and dredged material. Sand dunes in the vicinity of the project area may contain archaeological features; however, these areas would not be impacted by the proposed action.

m. Cultural and Historic Resources

Kahului Commercial Harbor has been designated a historic site (Site 50-50-04-2953) in the State of Hawaii Inventory of Historic Places, and also falls within the Historic Kahului District (Site 50-50-04-1607). It has not been listed on the National Register of Historic Places, but is potentially eligible. The historic importance of the site is related to its role in the development of the sugar industry on Maui and the establishment of Kahului as a major commercial center.

Current cultural uses of the harbor area include canoe paddling, shore fishing, surfing, *limu* (seaweed) gathering, and occasional spear fishing or recreational diving, which are described below.

n. Visual and Aesthetic Resources

Visual resources include scenic vistas, scenic overlooks, unique topography, or visual landmarks having scenic value. The proposed project location is surrounded by existing industrial and harbor development.

o. Recreational Resources

Recreational activities in Kahului Commercial Harbor include canoe paddling, surfing, fishing, diving, *limu* gathering, beachcombing, and recreational boating. Spear fishing, fish collecting, and diving can be performed when water conditions allow. A canoe racing course is located off-shore of Hoaloha Park, near Pier 2, and the recreational boat ramp is located on the West Breakwater. Surf spots are present within the harbor under certain ocean conditions. Conflicts exist between the commercial harbor and existing recreational activities in the harbor. Current security measures restrict non-commercial vessels in areas of the harbor and may close the harbor to non-authorized users.

6 SUMMARY OF POTENTIAL IMPACTS

a. Land Use

Impacts to land use in the harbor area could include changes to use of the West Breakwater, which is currently undeveloped and identified as conservation land. The West Breakwater is currently unused, except for the recreational boat ramp, which is outside of the proposed action area.

b. Climate and Air Quality

Significant impacts to the climate or air quality are not anticipated from the activities described under the proposed action or alternatives. Emissions of air pollutants from construction activities would be temporary. Construction equipment would be operated in compliance with existing state and federal regulations governing emission controls.

c. Marine Resources

Impacts to the marine environment would occur from dredging and filling activities within the harbor. An assessment of potential impacts, suggestions to avoid significant impacts, and plans to mitigate unavoidable impacts to marine resources will be developed through coordination with NMFS, USFWS and DLNR, and through subsequent permitting processes with the USACE, USEPA, and DOH.

d. Terrestrial Flora and Fauna

The project is not expected to have significant impacts on terrestrial flora and fauna. The eastern part of the harbor is developed, with the majority of the land area paved. The terrestrial flora at the West Breakwater is predominantly a mix of introduced and native species, such as beach naupaka, Bermuda grass, and tree heliotrope. Little faunal resources were identified in the project area. No endangered, threatened, or species of concern were identified at the project location. An assessment of potential impacts, suggestions to avoid significant impacts, and plans to mitigate unavoidable impacts to terrestrial flora and fauna will be developed through coordination with USFWS and DLNR.

e. Natural Hazards

The project is not expected to have significant impacts on flooding or other natural hazards in the area.

f. Geology, Topography, and Soils

Impacts to topography and soils would occur through dredging, filling, grading, and paving activities at the harbor. These impacts are unlikely to be significant as the land areas where impacts would occur have already been altered through filling and grading. Changes in bathymetry due to dredging could alter the wave regime within the harbor.

g. Groundwater and Surface Water Resources

Impacts to surface waters in the harbor would occur through dredging activities. Dredge-related impacts would be short-term and temporary. Management measures to minimize these impacts, such as the use of Best Management Practices, will be developed during the EIS and subsequent permitting processes.

h. Socioeconomic Conditions

A current socioeconomic impact analysis will be presented in the Draft EIS.

i. Traffic

A traffic study to evaluate the impacts of the alternative harbor configurations will be conducted as part of the draft EIS process. The results of the study will be used to determine whether the project would have significant impacts on existing traffic conditions, and will help identify ways to avoid or mitigate such impacts.

j. Public Services and Infrastructure

Public services and infrastructure would be affected by the harbor expansion, but impacts are not expected to be significant. An evaluation of potential impacts will be conducted as part of the EIS.

k. Noise

There are no sensitive noise receptors, such as schools, hospitals, or residences, in the project area. Dredging operations and construction activities would generate noise, but it would be temporary. Construction activities would be conducted in compliance with state rules (i.e., a noise permit or variance would be obtained, as required). Mitigation measures will be evaluated to address adverse noise impacts.

l. Archaeology

Significant impacts to archaeological resources are not anticipated. The mitigation measures put forth in the 2025 Master Plan EA will be implemented as needed.

m. Cultural Resources

Adherence to the mitigation measures outlined in the Cultural Impact Assessment for the 2025 Master Plan EA will minimize impacts to cultural resources in the area.

n. Visual and Aesthetic Resources

Significant impacts to visual or aesthetic resources are not anticipated as the activities described in the proposed action and alternatives are consistent with existing uses of the industrial harbor area.

o. Recreational Resources

A recreational resource evaluation will be conducted for the draft EIS. The existing canoe regatta course and boat ramp within the harbor will remain under the proposed action and alternatives.

7 DISCUSSION OF SIGNIFICANCE CRITERIA

HAR, Section 11-200-12, establishes thirteen (13) significance criteria which agencies shall use in evaluating an action's impacts. Following is a discussion of how the proposed action relates to the thirteen criteria.

Pursuant to subparagraph 12, *...an action shall be determined to have a significant effect on the environment if it*:

(1) Involves a*n irrevocable commitment to loss or destruction of any natural or cultural resource;*

Discussion: Loss of marine resources may occur as a result of dredging and filling activities within the commercial harbor. Consultation with USFWS, NMFS, and DLNR, which will include natural resource surveys, will identify areas with protected species and ways to avoid and/or mitigate impacts to those resources. Impacts to cultural resources, such as cultural use of the harbor, will be managed and/or mitigated through coordination with appropriate parties and agencies.

(2) *Curtails the range of beneficial uses of the environment;*

Discussion: Impacts to recreational activities in the bay, such as surfing and recreational diving, may occur as well as impacts to coral and other marine resources. Consultation with recreational users and applicable federal and state agencies is being conducted as part of the EIS process.

(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;

Discussion: The stated purpose of Chapter 344 is to establish a state policy which will encourage productive and enjoyable harmony between people and their environment, promote efforts which will prevent or eliminate damage to the environment and

biosphere and stimulate the health and welfare of humanity, and enrich the understanding of the ecological systems and natural resources important to the people of Hawaii. The proposed project would comply with the policies, goals, and guidelines of Chapter 344.

(4) Substantially affects the economic or social welfare of the community or State;

Discussion: By improving the means to transport goods and services to and from Maui, the proposed action will have a substantial beneficial effect on the economic and social welfare of the community.

(5) Substantially affects public health;

Discussion: No significant effects on public health are anticipated. DOT Harbors intends to construct and operate the harbor improvements in compliance with all applicable rules, regulations, and laws.

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

Discussion: Secondary impacts, such as population change or impacts to public facilities, will be identified in the socioeconomic evaluation to be conducted as part of the EIS.

(7) Involves a substantial degradation of environmental quality;

Discussion: The improvements are not expected to involve a substantial degradation of the existing environmental quality in the area. Temporary water quality impacts from dredging activities will be minimized by implementation of Best Management Practices, and impacts to marine and terrestrial natural resources will be avoided, minimized, or mitigated based on consultation with appropriate federal and state agencies.

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

Discussion: Mitigation measures would minimize or avoid adverse effects the improvements may have in the short-term and in the future. The improvements represent a major commitment by DOT Harbors to meet the shipping and transportation needs of the island of Maui.

(9) Substantially affects air or water quality or ambient noise levels;

Discussion: Construction-related impacts to air and water quality would be temporary and minimized through the implementation of Best Management Practices. Construction-related noise is not likely to impact ambient noise levels, as the proposed project is in an industrial area.

(10) 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;

Discussion: The project is located in a flood plain, tsunami zone, and coastal waters. Impacts to physical conditions in the harbor associated with dredging activities will be evaluated in the EIS process.

(11) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies; or,

Discussion: The project is in a heavily industrialized commercial harbor area with no important scenic vistas.

(12) Requires substantial energy consumption.

Discussion: Improvements to commercial harbor facilities will likely require additional energy consumption but it is not expected to be substantial or out of line with projected population and economic growth.

8 ANTICIPATED DETERMINATION

The applicant has determined that an EIS will be required for the project, pursuant to HRS Chapter 343, as amended.

9 AGENCIES AND PARTIES TO BE CONSULTED

At a minimum, the following agencies, citizen groups, and individuals will also be consulted:

FEDERAL GOVERNMENT

U.S. Army Corps of Engineers

National Oceanic and Atmospheric Administration, National Marine Fisheries Service

U.S. Department of the Interior, Fish and Wildlife Service

U.S. Environmental Protection Agency

U.S. Coast Guard

STATE GOVERNMENT

Office of the Governor

Department of Health

Department of Land and Natural Resources, Division of Aquatic Resources

Department of Land and Natural Resources, Division of Boating and Ocean Resources

Department of Land and Natural Resources, Historic Preservation Division

Department of Transportation, Highways Division

Department of Business, Economic Development, and Tourism

Office of Planning

Office of Hawaiian Affairs

COUNTY OF MAUI

Office of the Mayor

Maui County Council

Maui County Planning Department

Maui County Department of Public Works and Environmental Management

Maui County Department of Water Supply

COMMUNITY ORGANIZATIONS, ASSOCIATIONS, AND INTEREST GROUPS

Maui Electric Company

Maui Harbor Users Group

Hawaiian Canoe Club

Ocean Tourism Coalition

10 LIST OF PERMITS AND APPROVALS NEEDED

Department of the Army Permit

Endangered Species Act Section 7 Consultation

National Historic Preservation Act Section 106 Consultation

Clean Water Act Section 401 Water Quality Certification

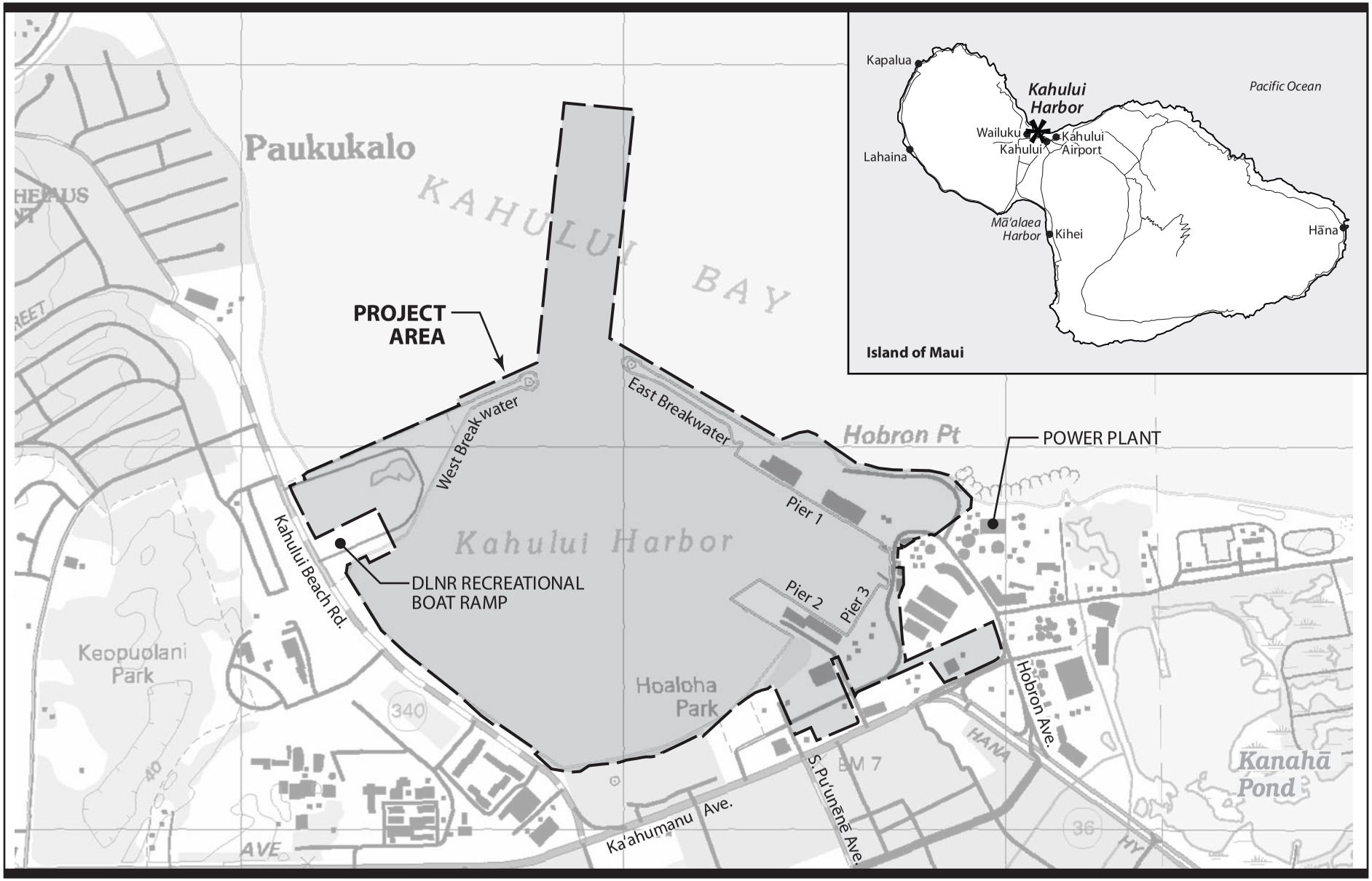
Coastal Zone Management Consistency Determination

Conservation District Use Application

National Pollutant Discharge Elimination System Permit

Building Permit

Grading Permit



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NORTH

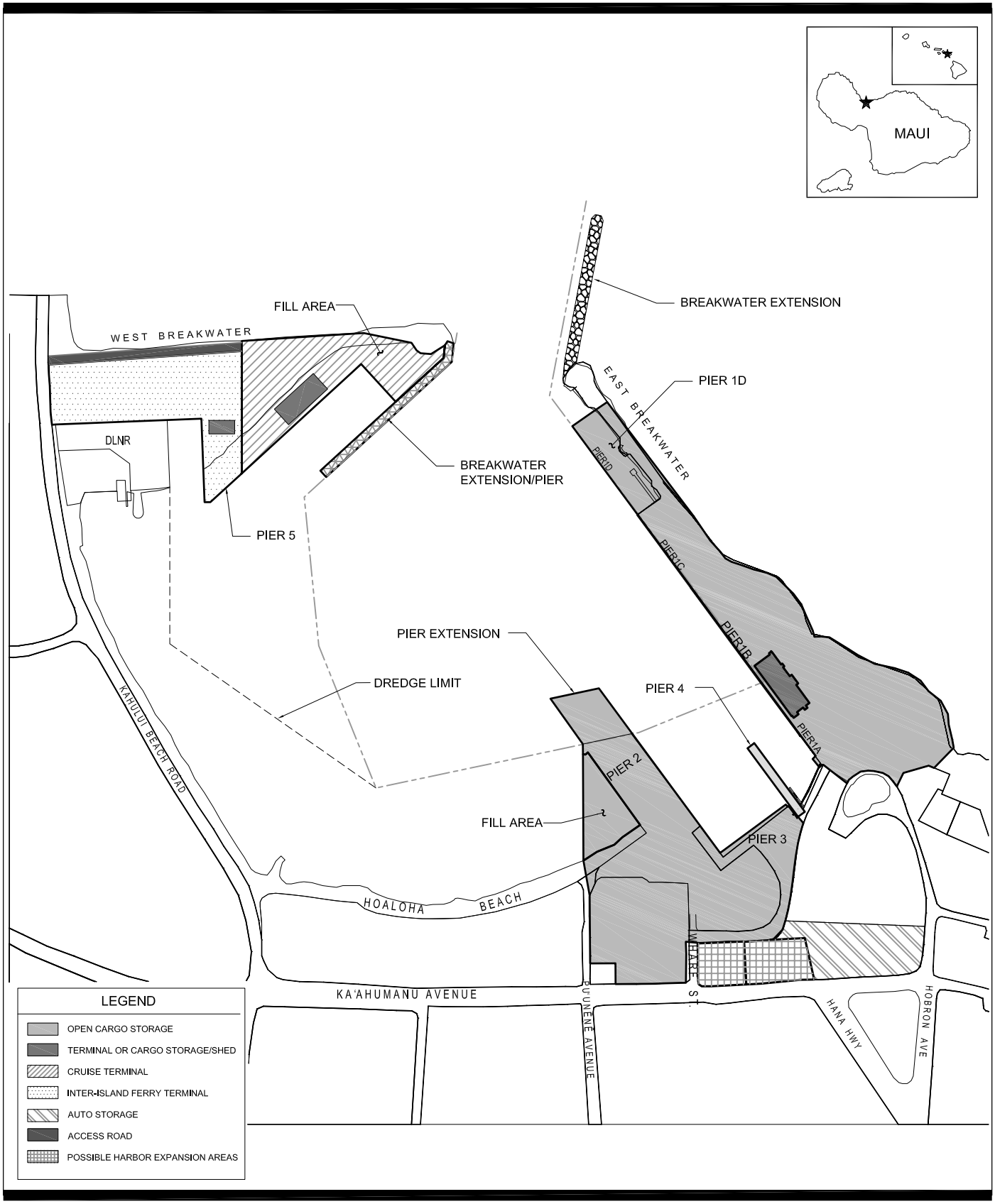
0 750 1500

SCALE IN FEET

Source: U.S. Geological Survey. October 2004. Digital Raster Graphic. Project area boundary determined from Tax Map Key (First American Real Estate Solutions. 2006. Realty Atlas, Hawaii. Counties of Maui and Kalawao. Zones 3 thru 6.)

Figure 1
PROJECT LOCATION

Kahului Commercial Harbor 2030 Master Plan
February 21, 2007



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SCALE IN FEET

Figure 2
ALTERNATIVE A

Kahului Commercial Harbor 2030 Master Plan
February 2007

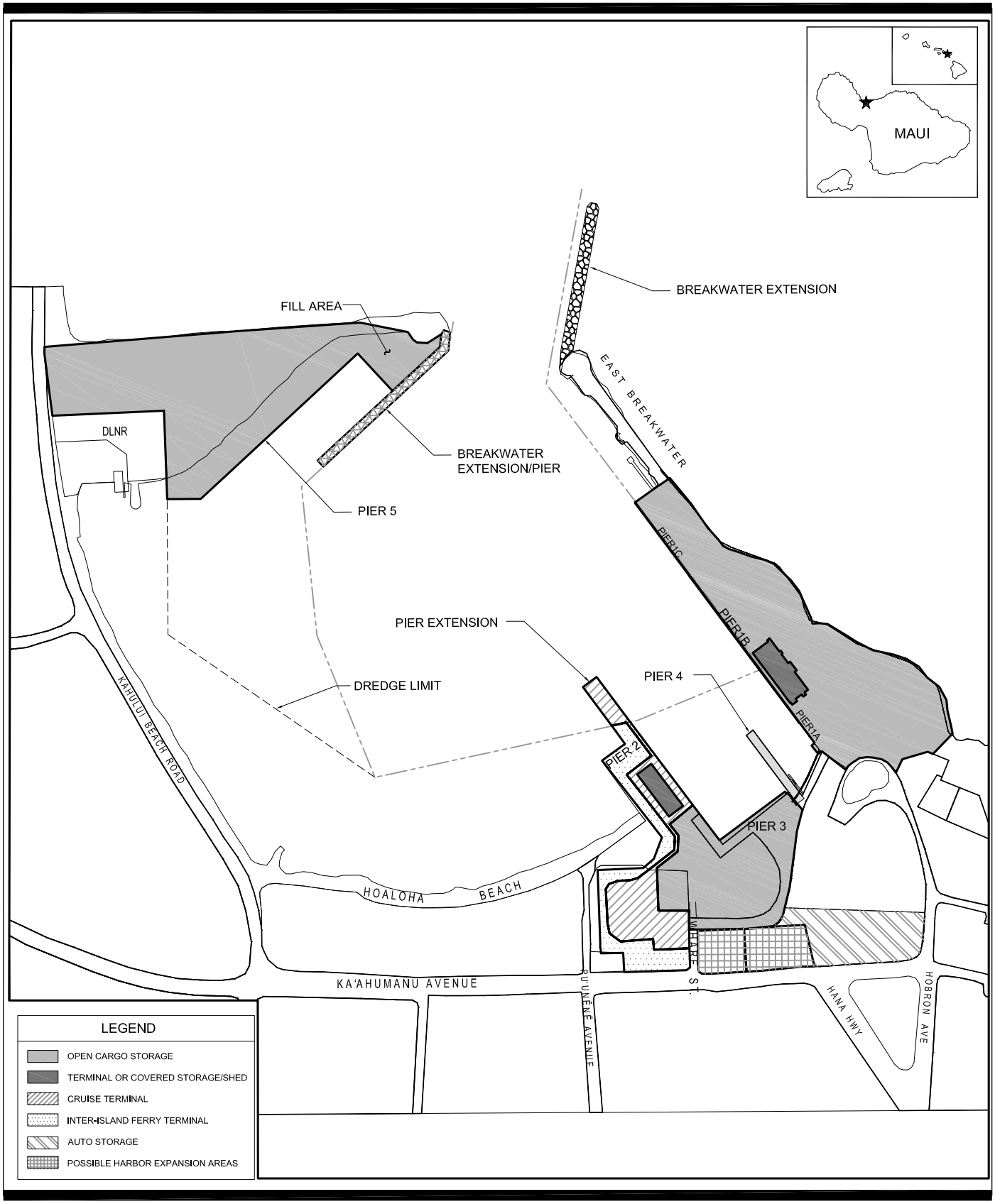

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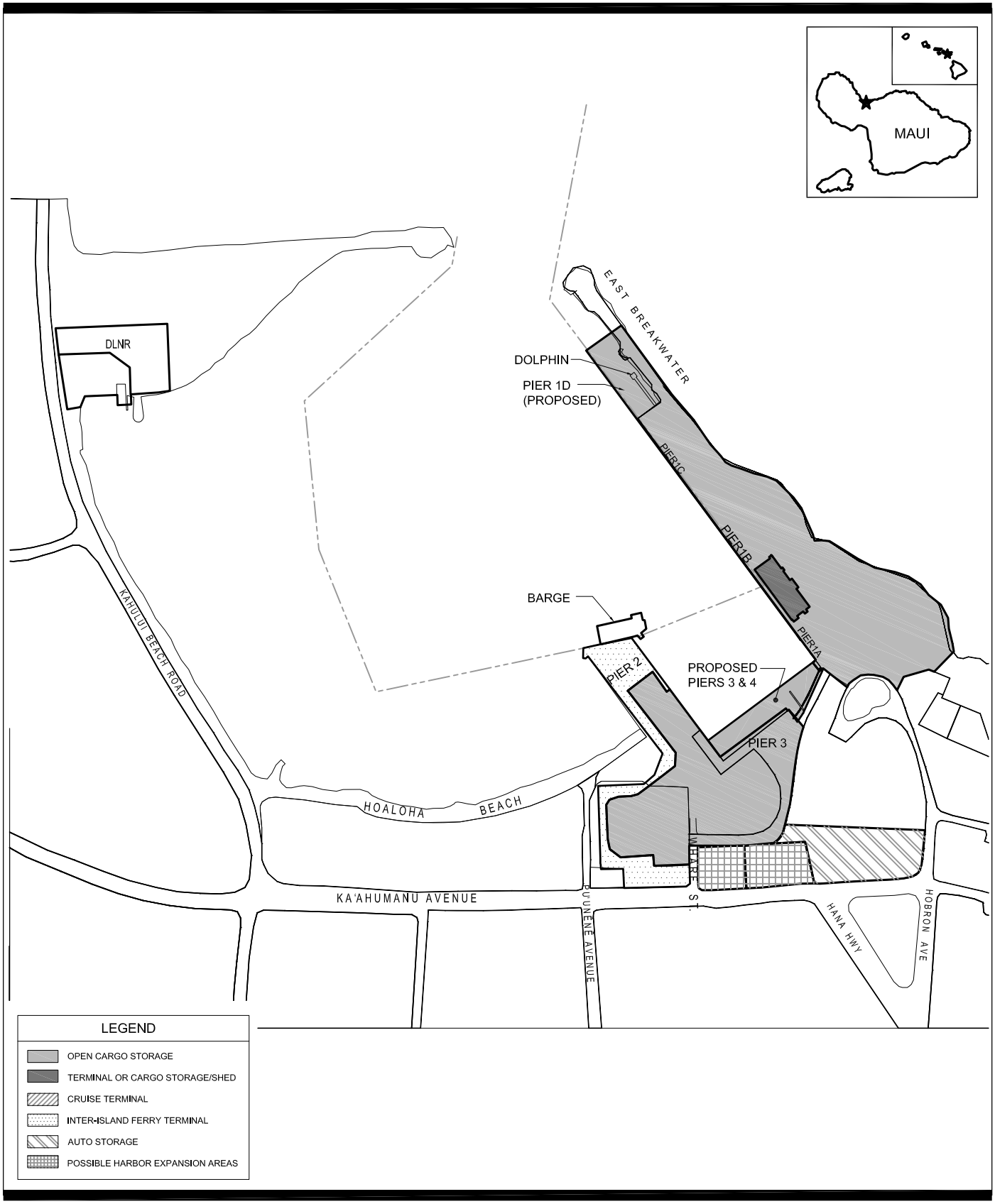
Figure 3
ALTERNATIVE B

Kahului Commercial Harbor 2030 Master Plan
February 2007



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NORTH

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Figure 4
NO ACTION

Kahului Commercial Harbor 2030 Master Plan
February 2007

11 REFERENCES

Hawaii Administrative Rules, Title 11, Chapter 23. September 22, 1992.

State of Hawaii Department of Business, Economic Development, and Tourism. 2007. Monthly visitor statistics. http://www.hawaii.gov/dbedt/info/visitor=stats/2006/Dec06.xls.

Mercator Transport Group. December 2005. *Hawaii Harbor Users Group Report on Port Facilities and Development Priorities.*