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# ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE & ENVIRONMENTAL ASSESSMENT

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KUHIO HIGHWAY IMPROVEMENTS,  
HANAMAULU TO KAPAA  
ISLAND OF KAUAI  
PROJECT NO. HP-056-1(46)

*"Kapaa Relief Route"*

Applicant:



State of Hawaii  
Department of Transportation  
Highways Division

Prepared by:



KIMURA INTERNATIONAL, INC.

March 2002

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Island of Kauai  
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**Environmental Impact Statement Preparation Notice  
and Environmental Assessment**

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Prepared by:

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1 Project Area Location

## 1. Introduction

### 1.1 Project Summary Information

Project Name	Kuhio Highway Improvements Hanamaulu to Kapaa (“Kapaa Relief Route”)
Applicant	State of Hawaii, Department of Transportation, Highways Division
Accepting Authority	Governor, State of Hawaii
Tax Map Keys	Division 4 (Kauai), Portions of Zones 3 and 4
Location	Island of Kauai, Lihue and Kawaihau Districts
Project Area	Coastal plain from the intersection of Kuhio and Kapule Highways to Kapaa Stream, and from the shoreline to the Kalepa and Nonou Forest Reserves.
Landowners	Various, including State and County entities, and private corporations and individuals
Project Description	Possible improvements to Kuhio Highway between Hanamaulu and Kapaa Stream to increase roadway capacity and provide alternate emergency access, as needed. Alternatives to be examined include widening of Kuhio Highway, construction of a new roadway, or a combination. If a new relief route is proposed, the project may include construction of one or more connector roads to the existing Kuhio Highway. A Transportation System Management alternative and no-build alternative will also be considered.
Existing Uses	The existing Kuhio Highway right-of-way is used for transportation purposes. A new relief route alignment may traverse areas currently used for residential, commercial, public facility, and/or park uses. Some areas are undeveloped or formerly used for agriculture.
State Land Use Designation	Urban, Agricultural, Conservation

Zoning Designation	Open (O) Residential (R4; R6; R10; R20) Industrial (I-L limited; I-G general) Commercial (C-G general) Special Treatment District (ST-P public; ST-C cultural/historic) Resort District (RR-20)
Flood Insurance Rate Map	Portions of the project area are located within the 100-year and 500-year flood zones
Special Management Area	Yes

## 1.2 Purpose and Need for Action

Improvements to Kuhio Highway are needed between Hanamaulu and Kapaa Stream to alleviate existing traffic congestion and provide adequate highway capacity to accommodate projected traffic volume through the year 2025. Currently, traffic along this portion of Kuhio Highway is frequently congested, not only during the morning and afternoon peak hours, but throughout the day. In addition, traffic incidents that occur on Kuhio Highway can cause significant traffic delays. Enhanced roadway capacity is needed so that the delays presently caused by such incidents can be reduced.

Deficiencies in the roadway network were noted long ago, and a planning effort was initiated by the State of Hawaii, Department of Transportation (HDOT) in 1992 to improve the Kuhio Highway corridor. In 1995, a temporary bypass route *mauka* of Kuhio Highway was opened to traffic. The temporary bypass utilizes private cane haul roads, and has provided some relief for traffic through Waipouli and Kapaa Town. However, the temporary bypass road is not viewed as a permanent solution. The two-lane road is constrained by limited hours of operation, it is vulnerable to flooding and mud flows during heavy rains, and the design of the roadway and bridge are substandard, thereby requiring low posted speed limits of 25-35 mph.

The first round of planning was terminated in 1999, but given ongoing deficiencies in the highway network, HDOT has resumed the planning for long-term improvements to the Kuhio Highway corridor. In the meantime, to address local circulation, a separate planning study is now underway. This planning effort—by consultants Wilson Okamoto & Associates, Inc.—is only intended to provide quick solutions for local traffic circulation, and is not expected to address long-term travel demand to 2025.

A permanent relief route is also needed to provide alternate access for the east side of the island and increase roadway capacity in the event an emergency situation requires evacuation. This is especially critical given Kuhio Highway's proximity to the ocean, and its location in a tsunami and flood-prone area.

Much of the business life in eastern Kauai takes place within a narrow strip along Kuhio Highway, therefore any permanent relief route in the *mauka* area would need connector roads that provide continuous access to retailers and services.

In summary, the intent of the proposed action addressed by this environmental assessment includes alleviation of existing traffic congestion along Kuhio Highway, accommodation of projected traffic growth to the year 2025 for both local circulation and through traffic, provision of an alternate emergency access and evacuation route to respond to an emergency condition, and provision of additional roadway capacity when traffic incidents impede the normal flow.

Scoping and outreach may yield additional project purposes that will need to be considered during the planning process, and public input on purposes that should be served by roadway improvements in this corridor is requested. In addition, a future traffic study will address such issues as: capacity and levels of service for the existing and proposed facility, transportation demand relative to projected economic development and land use changes, safety, existing roadway deficiencies, transportation system linkages, and modal interrelationships. The DEIS will contain an expanded discussion of purpose and need based on the information and comments received.

### **1.3 Proposed Action**

Based on the purposes and needs outlined above, the State of Hawaii, Department of Transportation, Highways Division (HDOT), in cooperation with the Federal Highways Administration (FHWA), is proposing roadway improvements to the Kuhio Highway travel corridor on the island of Kauai, between Hanamaulu and Kapaa Stream. Scoping of this project is now being initiated, and it is anticipated that several alternatives will be studied, including the no-build alternative. Possible "build" alternatives may include widening portions of Kuhio Highway, construction of a new bypass road or "relief route," a "Transportation System Management (TSM)" alternative, or some combination of these. The proposed action could also include construction of connector roads between the relief route and the existing Kuhio Highway.

As shown in Figure 1, the project area is a corridor starting at the intersection of Kuhio Highway and Kapule Highway near Hanamaulu, and ending at a point near the Kapaa Stream crossing, just outside of Kapaa Town. The project corridor extends *mauka-makai* (i.e., from the mountains to the sea) from the Kalepa and Nonou Forest Reserves to the shoreline.

#### **1.4 Purpose of this Environmental Assessment (EA)**

The proposed action may utilize federal, State, and/or county funding and State and/or county land. Therefore, it is subject to both federal and State environmental laws and regulations. Requirements for review of environmental concerns under the federal system are specified in Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §4332, as implemented by the Council on Environmental Quality (CEQ) regulations, 40 CFR Parts 1500-1508. Additional requirements instituted by FHWA are contained in "Environmental Impact and Related Procedures" 23 CFR 771, August 28, 1987. In the State of Hawaii, environmental review procedures and requirements are delineated in Chapter 343, Hawaii Revised Statutes (HRS), Act 241, Session Laws of Hawaii (SLH) 1992, and Chapter 200 of Title 11, Department of Health (DOH) Administrative rules, "Environmental Impact Statement Rules." Other relevant regulatory actions are listed in Section 1.6, below.

This document combines an Environmental Assessment (EA) and an Environmental Impact Statement Preparation Notice (EISPN) and is being filed with the Hawaii State Office of Environmental Quality Control (OEQC). It supersedes an EISPN for the project published on September 8, 1992. This filing initiates the Chapter 343 process.

A Notice of Intent (NOI) to prepare a DEIS will also be published in the Federal Register and supersedes an earlier NOI published in the October 9, 1992 edition of the Federal Register (Vol. 57, No. 197). This publication will initiate the NEPA process.

The purpose of this EA is to reinitiate scoping. The applicants have determined that an EIS will be required because it is likely that some or all of the build alternatives may have significant impacts, as the term is defined by both Chapter 343, HRS and NEPA. Among the areas in which the project could have significant impacts are the following:

- Displacement of residents and/or businesses
- Visual effects
- Archaeological and cultural sites and artifacts
- Wetlands
- Parkland impacts
- Floodway and Floodplains

The applicants acknowledge the contributions of individuals and organizations who were involved in the prior planning process that took place during 1990s. That process led to the identification of three alternatives that warranted more detailed consideration. Those options were designated as follows:

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Alternative No.	Short Name	Widening (miles)	New Highway Construction (miles)
2	Wailua River Bridge	4.5	2.8
6	Coco Palms Hotel	3.8	3.5
7	Wailua Marina Restaurant	2.7	4.8

It is anticipated that alternatives generated from the prior planning process will continue to be studied; however, a wider range of options will also be considered through the planning process. The alternatives will depend, in part, on how the “existing conditions” surveyed in the early 1990s may have changed in the intervening 10 years. Any new information or ideas for alternatives would be of interest.

All stakeholders and interested parties are invited to come forward with ideas for purpose and need, alternatives, alternative selection criteria, environmental concerns, suggestions for outreach, and other information relevant to the planning process. All comments received will be addressed in the DEIS.

Those who wish to be involved in the planning process and kept informed of its progress and planning-related events may ask to be placed the project mailing list. Please contact:

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## **1.5 Draft and Final Environmental Impact Statements**

According to NEPA and the CEQ implementing regulations, the primary purpose of an environmental impact statement is to:

*“...provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment...an EIS is more than a disclosure document. It shall be used by Federal officials in conjunction*

*with other relevant material to plan actions and make decisions.” (40 CFR Section 1502)*

The DEIS to be prepared for this project will describe the alternatives being considered, and discuss potential impacts of the alternatives in a comparative format. It will define the issues and provide a basis for choice by the decision makers and the public. Although it will describe the alternatives being considered, the DEIS will not identify a preferred alternative.

Upon completion of the DEIS, a Notice of Availability (NOA) will be published and a 45-day public review period will commence. Written review comments will be solicited and incorporated into a Final Environmental Impact Statement (FEIS). The alternative identified to be the most prudent and practicable by HDOT and FHWA will be identified in the FEIS. Upon completion of a FEIS, an NOA of the FEIS will be published in the Federal Register, the OEQC *Environmental Notice* and local newspapers, initiating a 30-day public review period. After that time, a federal Record of Decision (ROD) will be filed by the Federal Highway Administration. The ROD will record the federal recommendation of the selected alternative and document the decisions made by the implementing agencies. It will also document any commitments made as conditions for construction, such as mitigation requirements agreed to between the implementing agencies and regulatory agencies.

## **1.6 List of Possible Permits, Approvals, and Requirements for Regulatory Compliance**

The permits, processes, reviews, and approvals that may be required for the “build” alternatives will depend on the specific features of the alternative selected. However, the following permits may potentially be needed. This list will be refined as the alternatives are developed in more detail. Input on other approvals that may be necessary is requested from government agencies and other participants in the environmental review process.

### ***Federal***

- National Environmental Policy Act, environmental review process
- Department of Army Permit, Section 404 Clean Water Act
- Section 4(f) Department of Transportation Act of 1966
- Section 7 of the Endangered Species Act (U.S. Fish and Wildlife Service, National Marine Fisheries Service)
- Section 106, National Historic Preservation Act

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- Title VI (Nondiscrimination in Federally Assisted Programs) of the Civil Rights Act of 1964, 42 USC 2000(d)-2000(d)(1) and Executive Order 12898 regarding Environmental Justice
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
- Farmland and Conversion Impact Rating Form
- U.S. Coast Guard Bridge Permit
- Americans with Disabilities Act Accessibility Guidelines

### ***State of Hawaii***

- Chapter 343 HRS, environmental review process
- Department of Health
  - Noise permit during construction
  - Section 402, National Pollutant Discharge Elimination System (NPDES) Permit
- Chapter 6E, HRS consultation, State Historic Preservation Division
- Act 50 (April 26, 2000), Cultural Impact Assessment
- Department of Land and Natural Resources, State Endangered Species Act
- Department of Land and Natural Resources, Stream Channel Alteration Permit
- Department of Land and Natural Resources, Conservation District Use Permit
- Coastal Zone Management Act federal consistency review

### ***County of Kauai***

- SMA Permit

## **2. Alternatives Including the Proposed Action**

The scoping process being initiated by the distribution of this EISPN/EA is intended to generate a full range of project alternatives for subsequent evaluation. Public input on alternatives that would help to satisfy the project purposes discussed in Chapter 1 is requested.

The DEIS will discuss a full range of reasonable alternatives that would meet the project objectives, as well as the no-action alternative, which would not meet project objectives. A tiered screening process is envisioned, with three of the most promising build alternatives, and the TSM alternative, being addressed in greater detail. Public input on criteria to determine which alternatives are the most promising is also requested.

For the three “build” alternatives to be discussed in greater detail, and the TSM alternative, the DEIS will summarize the environmental consequences of each alternative, comparing and defining the differences between them. The impact of each alternative will be discussed on each resource area, including—but not limited to—traffic, flora and fauna, environmentally sensitive areas (e.g., historic sites, wetlands, and parks), visual resources, and social and economic activities.

Based on a review of the prior planning process, the alternatives formerly numbered 2, 6, and 7 (see Section 1.4, above), appear to be the most promising at this point. However, all of the alternatives studied in the “prior planning process” will be reexamined, and new analyses conducted on alternatives that may be generated through this scoping phase and a fresh look at the corridor.

### **2.1 Proposed Action**

The preferred alternative is unknown at this point; however, the alternatives to receive detailed analysis in the DEIS are expected to include a combination of (1) improvements to Kuhio Highway, (2) construction of a new bypass road or “relief route,” and (3) connector roads between the bypass road and Kuhio Highway. The DEIS will identify alternatives that are being considered, but will not identify a proposed action or preferred alternative. Rather, the DEIS will describe and compare the alternatives and their environmental impacts. The alternative preferred by HDOT and FHWA will be identified in the Final EIS (FEIS).

## **2.2 No-Action Alternative**

The DEIS will describe the no-action or status quo alternative, which would leave Kuhio Highway in its current condition, except for possible short-term and minor activities, such as safety upgrades and maintenance. It will discuss projected traffic volumes and other environmental conditions under this scenario, and assess the impact of no-action for each resource area.

## **2.3 Alternative Alignments**

The DEIS will describe alternative alignments that are being considered for a relief route, as well as other combinations of highway widening and new road construction. Alternative locations for connector roads between the relief route and the existing Kuhio Highway will also be discussed. At this point, Alternatives 2, 6, and 7 (see Section 1.4, above) from the prior planning process appear to warrant further study.

## **2.4 Other Alternatives**

Other alternatives requiring no construction or limited capital investment will also be described in the DEIS. These include Transportation Demand Management (TDM) measures to better manage travel demand during peak hours, such as staggered work hours and ridesharing, as well as Transportation System Management (TSM) which attempts to improve the performance of existing transportation facilities with relatively low-cost actions. TSM measures include low-capital investment solutions such as restriping roadways, establishing contraflow lanes, designating high occupancy vehicle (HOV) lanes, and signal synchronization. Expansion or enhancement of public transit or mass transit is another transportation alternative that will be discussed in the DEIS.

### **3. Affected Environment, Environmental Consequences, and Mitigation**

#### **3.1 Introduction**

This chapter of the Environmental Assessment (EA) identifies the resource areas that will be addressed in the DEIS, describes the scope of the DEIS analysis, and identifies some of the anticipated environmental issues. Because the environmental analysis has not yet been completed, this EA does not discuss project impacts, whether the impacts will be significant, or potential mitigation measures.

The information presented in this EA is limited to a brief description of existing conditions from available sources of information. These studies will be verified and updated for the DEIS.

In addition to describing existing conditions, the DEIS will evaluate the environmental impacts of the alternatives on the various resource areas. The resource areas to be covered are organized into five categories: (1) physical environment, (2) biological environment, (3) archaeological, historic and cultural environment, (4) socio-economic environment, and (5) public facilities and services.

This chapter describes the ongoing analysis and scope of the technical studies that will be completed for each resource area. It also identifies potential environmental issues and concerns that will be covered in more detail in the DEIS.

Input on additional issues and concerns, as well as on the study methodologies proposed in this chapter, is requested.

#### **3.2 Land Ownership and Land Use**

Figure 1 identifies some of the major landmarks and features within the study area. The study area includes publicly and privately owned lands, and both developed and undeveloped areas. The DEIS will provide information on land ownership and use, including: major landowners; past, present, and future land uses; and existing encumbrances.

### **3.3 Physical Environment**

#### **3.3.1 Topography, Geology, and Soils**

##### **Regional Geology**

Kauai is comprised of two basic rock units, known as the Koloa and Waimea Volcanics. The Koloa Volcanics (i.e., series of lava and other volcanic material) from the Lihue shield volcano covers about half of the eastern section of Kauai, including the project area. The Waimea Volcanic series covers the remainder of the island. In the project area, recent alluvial and beach deposits form a coastal plain extending up to one mile inland from the shore.

In the project area, the Nonou and Kalepa Ridges parallel the coast, one to two miles inland from the shore. Elevations within the project corridor range from near sea level to approximately 200 feet at the foot of the ridges.

##### **Soils**

Major soils in the project area include those in the Lihue, Mokuleia, Kaloko, Koloa, and Kalapa Series; as well as soils classified as Fill Land, Badland, and Marshland. The DEIS will show the location of these soil types and describe their suitability for construction. Some of these soil types may be considered “prime” or “significant” in terms of agricultural use.

##### **Former Agricultural Use**

Much of the project area was historically under sugar cane cultivation by Amfac/JMB’s Lihue Plantation. Over the last 20 years, there has been a general decline in sugar cane production throughout the State due to decreasing profitability. In 2000, Amfac/JMB ceased production at its two sugar mills on Kauai, Kekaha Sugar Company on the west side of the island and Lihue Plantation near the project area.

Since that time, the former cultivated lands within the project area have remained fallow with some grazing and diversified agricultural production. The DEIS will identify potential impacts on these former sugar cane lands, their current use, and potential for other uses in the future.

### **3.3.2 Hydrology**

#### **Flood Hazard and Tsunami Inundation**

Many areas within the project corridor are subject to flooding, including most of the low-lying areas of Kapaa and Wailua. The lower two-mile segment of the Wailua River has a history of flooding, which is aggravated by debris build up at the bridge piers at the river mouth. There is also upstream flooding from the Opaekaa Stream. The area around the Kauai Community Correctional Center is known as one of the island's worst flood-prone areas, with ponding that often lasts for days. In the Kapaa area, a series of drainage canals (Moikeha, Waikaea and Waipouli) were initially constructed to alleviate flood problems. However, these canals are poorly maintained and have considerable silt and debris build-up. Short sections of Kuhio Highway are in the tsunami inundation zone.

The DEIS will include updated Flood Insurance Rate Map information, and identify flood-prone areas. Because a new roadway could affect regional drainage patterns, the DEIS will examine the impact of each of the project alternatives on area hydrology, drainage, and flood conditions.

### **3.3.3 Climate and Air Quality**

#### **Climate**

The Wailua area of Kauai receives an average monthly rainfall of 5 inches or less. Widespread rainstorms, which account for much of the precipitation, occur most frequently between October and April. January is the wettest month, averaging over 6 inches of rain. The average temperatures recorded at weather monitoring stations in Lihue and Kealia vary between 60 and 80 degrees Fahrenheit. Prevailing winds are northeasterly trade winds, which are more persistent during the summer months than in the winter.

#### **Air Quality**

According to 1980 data, air quality was impacted primarily by pollutants from vehicular, industrial, natural and/or agricultural sources. At that time, the agricultural industry was the largest source category for particulate emissions. Sulfur dioxide emissions originated mainly from a power plant near Port Allen, with much smaller amounts coming from ships using Nawiliwili Harbor. Motor vehicles accounted for much of the emissions of nitrogen oxides, carbon monoxide, and hydrocarbons.

Closure of the Lihue Plantation may have decreased particulate matter in the area from the 1980 levels. It is anticipated that vehicular traffic is currently the major source of emissions.

The DEIS will include a description of current air quality and estimates of each alternative's impact on future air quality.

### **3.3.4 Natural Hazards**

In addition to tsunami and flood, other natural hazards that could occur in the project area include earthquakes and hurricanes.

#### **Earthquakes**

The island of Kauai rarely experiences earthquakes because the island is not situated in a highly seismic area. Earthquakes affecting Kauai may be caused by movement along faults (tectonic earthquakes) or by volcanic activity (volcanic earthquakes). There are four faults on Kauai, generally cutting across the island in an east to west direction. According to a 1973 study by the Hawaii Institute of Geophysics, Kauai is located in seismic probability Zone 1, representing "minor damage" due to seismic intensity. This is the lowest risk level of all the islands.

#### **Hurricanes**

Hurricanes are intense tropical cyclones with sustained (one-minute average) wind speeds greater than 75 miles per hour. They form over warm tropical water and generally travel in the same direction as the winds in the surrounding environment. Historically, most hurricanes that have affected the state have focused on Kauai.

In November 1982, Hurricane Iwa struck Kauai and Oahu and caused \$234 million in property damage to both islands. In September 1992, Hurricane Iniki struck with winds up to 150 mph, causing over \$1 billion in damage to Kauai.

One of the major reasons for the proposed project is to facilitate emergency evacuation and provide an alternate route through Kapaa in the event of a natural disaster such as a hurricane. The adequacy of each alternative in meeting these objectives will be discussed in the DEIS.

### **3.3.5 Noise**

The DEIS will provide current information on ambient noise levels along Kuhio Highway, and along proposed roadway alignments that are being considered. Noise-sensitive areas will be identified, and the impacts on these noise-sensitive areas will be described.

The construction of a relief route may significantly reduce the number of noise impacted structures and lands along Kuhio Highway (i.e., structures currently exceeding FHWA's 67 dB noise abatement criteria). This is due to the anticipated reduction in traffic along Kuhio Highway. However, other structures along the route of a new bypass route and connector roads could be impacted. The DEIS will identify structures that may be noise impacted for each of the alternate alignments being evaluated. Appropriate mitigation measures will be identified.

## **3.4 Biological Resources**

### **3.4.1 Terrestrial Fauna**

The DEIS will include an updated avifauna and feral mammals survey. The study will also identify wetland areas that serve as waterbird habitats. The project alternatives will be compared based on their relative impact to threatened and endangered species and their habitats. If impact to these species or their habitat cannot be avoided, mitigation measures will be identified.

The only existing feral mammal study of the project area (Bruner, 1994) reported the presence of cats, rats, and mice. The endemic and endangered Hawaiian Hoary Bat was not seen during the 1994 survey, but the study noted that the bat has been observed in the Wailua Bridge area.

The 1994 study also recorded twenty-one species of introduced (exotic) birds, which was consistent with other similar studies on Kauai. No resident endemic land birds were recorded. It was noted that the Pueo or short-eared Owl may occur in this region of Kauai.

Four endemic and endangered waterbird species were observed at various locations within the study area—the Koloa Duck (*Anas wyvilliana*), American Coot (*Fulica americana alai*), Common Moorhen (*Gallinula chloropus sandvicensis*) and Black-necked Stilt (*Himantopus mexicanus knudseni*). These waterbirds were scattered throughout the various wetland habitats, with Koloa and Common Moorhen the most prevalent. At the time of the study, wetland habitat suitable for waterbirds was common throughout the study area, particularly from the Wailua River to Moikeha Canal north of Kapaa.

The indigenous, but not threatened or endangered, Black-crowned Night Heron (*Nycticorax nycticorax*) was sighted at Opaekaa Valley. Migratory birds observed included the Common Pacific Golden Plover (*Pluvialis fulva*) and the Ruddy Turnstone (*Arenaria interpres*). The only seabird seen was the Great Frigatebird (*Fregata minor*).

The study noted that within the study corridor, the threatened Newell's Shearwater (*Puffinus newelli*) are known to utilize the Wailua River area as a flight path, as they travel back and forth between their nesting burrows in the mountains and open sea where they forage.

A species list is being requested from the U.S. Fish and Wildlife Service and will identify listed or proposed species or designated or proposed critical habitat that may be present in the project area. Consultation with the U.S. Fish and Wildlife Service will be conducted in accordance with Section 7 of the Endangered Species Act. The State of Hawaii Department of Land and Natural Resources (DLNR) will also be consulted.

### **3.4.2 Aquatic Resources**

Streams within the project area provide habitat for native and introduced species of fish, insects, mollusks, and crustaceans. These streams include Wailua River, Kapaa Stream, Kawailoa Stream, and Moikeha, Waikaea, and Waipouli Canals. With the exception of insects, all conspicuous native stream animals in Hawaii are amphidromous; that is, animals that reside in freshwater streams, but spend their early larval period in the ocean.

Previous studies identified endemic fish such as aholehole (*Kuhlia sandvicensis*) and the introduced tilapia (Sarotherodon). Other species include economically important stream species such as native 'o'opu nakea (*Awaous stamineus*) and 'o'opu okuhe (*Eleotris sandwicensis*) found within the Kapaa mainstream channel and its upland tributary.

In February 2002, nine streams and tributaries on Kauai, including the north fork of the Wailua River, were proposed by the U.S. Fish and Wildlife Service as critical habitat for the Newcomb's Snail (*Erinna newcombi*), a freshwater snail listed as a threatened species.

The DEIS will include the results of an aquatic biological assessment of streams, riparian areas and estuaries in the project vicinity. There are several stream systems that have the potential to be impacted by the proposed project, including the lower reaches of Kapaa (Kealia) Stream and estuary, Konohiki Stream and associated waterways, and the lower Wailua River system which encompasses the South Fork up to Wailua Falls, Opaekaa Stream to Opaekaa Falls, as well as Wailua River proper from its estuary up to the Fern Grotto.

The biological assessment will:

- Develop a species list of fish, invertebrates and algae inhabiting streams and estuaries in potential construction areas
- Evaluate the biological integrity of streams as compared to Hawaiian “reference stream” standards
- Evaluate stream habitat quality and riparian areas of stream environments as compared to Hawaiian “reference stream” standards
- Confirm the absence of listed Newcomb’s Snail in the lower reaches of the north fork of the Wailua River

The study will also recommend mitigation to minimize the impact of project-related construction activities.

### **3.4.3 Botanical Resources**

A previous botanical study (Char & Associates, 1994) identified six vegetation types or plant communities within the project area. The first four vegetation types: (1) ruderal or roadside vegetation, (2) sugar cane fields, (3) pasture land/scrub vegetation, and (4) mixed forest are dominated primarily by introduced or alien plants. The last two vegetation types, (5) coastal vegetation and (6) wetlands, support a number of native species.

The DEIS will include an updated botanical survey and wetland study. None of the first four vegetation types are anticipated to have undergone major change since 1994, with the exception of sugar cane fields, which are now fallow and more likely to be overgrown with weeds. Special attention will be paid to coastal and wetland vegetation areas identified in the 1994 study.

The DEIS will discuss the presence or absence of threatened and endangered species or species of concern along the alternative roadway alignments. Potential environmental problems or concerns will be identified and appropriate mitigation measures proposed.

### **3.4.4 Wetlands**

The previous botanical study (Char & Associates, 1994) identified three major wetlands and a few smaller wetlands within the project area. One of the major wetlands is located within the Opaekaa Valley, the flatland situated between the Wailua River and the Wailua House Lots subdivision. The wetland extends from the Coco Palms Hotel *mauka* into the valley, and is generally bounded by Kuamoo Road to the south and a ridge to the north. This wetland was identified as a relatively high quality wetland. The

area provides a diversity of waterbird habitat and endangered waterbirds have been observed here.

Kapaa Marsh, located immediately *mauka* of Kapaa town, was another major wetland area identified in 1994. The Waikaea wetland is located east of Kapaa Marsh, and consists of the Waikaea Canal and a system of smaller drainage ditches which cross through pasture land. The area is presently used as pastureland for cows. In 1994, the State Department of Land and Natural Resources indicated the Waikaea wetland was considered marginal habitat for endangered waterbirds, and less desirable habitat due to its proximity to urbanized areas.

Other smaller wetlands were identified along the Wailua River and the Moikeha Canal, and along the small drainage ditch fronting the correctional facility. Another small wetland was identified in a low-lying area *mauka* of the Kuhio Highway-Papaloa Road intersection.

The DEIS will include an updated wetlands study to reflect any changes in hydrology or other factors that may have occurred since the original wetland survey. Potential wetland areas will be surveyed in detail and will be subject to regulation by the U.S. Army Corps of Engineers (USACE). Jurisdictional wetlands, i.e., wetlands meeting USACE wetland criteria and subject to regulation under Section 404 of the Clean Water Act, will be formally delineated in accordance with USACE criteria. The USACE utilizes three criteria to define a jurisdictional wetland: hydrophytic vegetation, hydric soils, and wetland hydrology.

The DEIS will identify wetlands that may be impacted by each alternative alignment and connector road. It will evaluate potential impacts to wetlands due to filling and construction activity, placing of piles in wetland areas, and increased sedimentation. Long-term impacts may include pollutant runoff into the wetland. The DEIS will evaluate the potential impacts of each alternative and identify mitigation measures.

The U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and the State Department of Land and Natural Resources will be consulted during all stages of the project. When the preferred alternative alignment is selected, the boundaries of the jurisdictional wetlands along the alignment will be delineated and mapped with the concurrence of the U.S. Army Corps of Engineers.

### **3.5 Archaeological, Historical, and Cultural Resources**

#### **3.5.1 Archaeological**

An archaeological inventory survey of the project area was conducted in 1995 (Cultural Surveys Hawaii, 1995). That survey identified archaeological sites and land areas of archaeological concern that could be impacted by the project. Major archaeological sites in the project area include Malae *heiau*, Poliahu *heiau*, Hikinaakala *heiau*, and Puuhonua o Hauola (place of refuge).

Potential burials were also identified within the project corridor, including one at Kaluamokila Cave. Besides caves, burial in sand deposits extending inland from the coast was a common Hawaiian practice. These burials have been encountered along coastal sections of all major Hawaiian Islands, and it is possible that some may be encountered during project-related excavation.

Marshlands have been shown to be an environment conducive to the preservation of fossil pollen and other micro-fossils, which have archaeological significance. For this reason, construction projects that enter marshlands are deemed to have archaeological impact. The DEIS will identify potential impact to marsh areas by activities such as dredging, grading disturbance or filling of marshland. Mitigation measures will be recommended.

The DEIS will include results of the archaeological assessment of the project corridor. It will also identify archaeological resources that may be impacted by the alternative alignments being considered.

Consultation will be conducted with the Department of Land and Natural Resources State Historic Preservation Division (DLNR-SHPD) in accordance with Section 106 of the National Historic Preservation Act (NHPA). Section 106 requires "Federal agencies to take into account the effects of their undertakings on historic properties and afford the [National Historic Preservation] Council a reasonable opportunity to comment on such undertakings." The Section 106 process requires consultation with native Hawaiian organizations. The consultant will coordinate the County of Kauai, Office of Hawaiian Affairs, the Kauai Island Burial Council, the Kauai Historical Society, and other relevant public and native Hawaiian organizations. Documentation of the Section 106 consultation process will be included in the Draft and Final EIS.

Parties with an interest in the project's potential impact on archaeological resources are asked to notify the applicants during the EISPN review and scoping process.

### **3.5.2 Cultural Resources**

A cultural impact assessment will be prepared to gather information about traditional cultural practices and features that may be impacted by the project alternatives and the findings will be presented in the DEIS. The cultural impact assessment will meet the requirements outlined by the State of Hawaii Office of Environmental Quality Control. The following tasks will be conducted:

- Conduct background research with the goal of identifying traditional Hawaiian activities including gathering of plant, animal and other resources or agricultural pursuits as may be indicated in the historic record.
- Review the existing archaeological information pertaining to the sites in the study area as they may allow one to reconstruct traditional land use activities and identify and describe the cultural resources, practices and beliefs associated with the parcel and identify present uses, if appropriate.
- Conduct oral interviews with persons knowledgeable about the historic and traditional practices in the project area and region.

A report will be prepared summarizing the information gathered related to traditional practices and land use. The report, which will be included in the DEIS, will assess the impact of the proposed action on the cultural practices and features identified.

Because of the location and size of the project corridor, it is possible that native Hawaiian skeletal remains will be found during the archaeological inventory survey of the final selected alignment. Consultation and notification of Native Hawaiian groups will be conducted, as required by the Native American Graves Protection and Repatriation Act (NAGPRA). In accordance with NAGPRA, notification of the potential to disturb native Hawaiian burials should be given prior to the undertaking. This notification will be accomplished as part of the cultural impact assessment.

### **3.5.3 Historic Architecture**

The DEIS will include the results of a reconnaissance-level inventory of historic structures within the project area. That study will provide a general development history of the various urban and residential areas in the study corridor, such as the Wailua River area, Wailua House Lots, Kapaa Town, and inland Kapaa housing areas.

In addition to the reconnaissance-level inventory, a more detailed inventory will be completed for historic buildings and structures (e.g., bridges) that may be impacted by the alternative alignments. The DEIS will identify each alternative's potential impact on historic structures. This information will be considered in evaluating the alternatives. If impacts to historic structures cannot be avoided, mitigation measures will be identified.

The consultant will work closely and coordinate all efforts with the Department of Land and Natural Resources State Historic Preservation Division (DLNR-SHPD) in accordance with Section 106 of the NHPA. Other groups such as the Office of Hawaiian Affairs and the Kauai Historical Society will also be consulted. Public input on other groups and organizations that should be consulted is requested.

### **3.6 Socio-economic Environment**

#### **3.6.1 Demographics**

##### **Population**

According to the 2000 U.S. Census, Kauai's population grew by about 15% between 1990 and 2000, from 51,000 to 58,463 persons. The study area falls primarily within two census tracts—Census Tract 402.02 which covers most of Wailua, and Census Tract 403 which includes Kapaa. In 1990, these two census tracts had a combined population of 15,402 (7,750 in Tract 402.02 and 7,652 in Tract 403). This represented 26.3% of the total island population.

Approximately 30.8% of the population in these census tracts classified themselves as white (alone), 30.5% as Asian (alone), 9.2% as Native Hawaiian/Pacific Islander, and 27.6% were of "two or more races."

As a whole, the racial make-up of the planning area was fairly comparable to the island-wide racial breakdown of 29.5% white, 36% Asian, 9.1% Native Hawaiian/Pacific Islander and 23.8% of two or more races. However, when the two census tracts were analyzed separately, the Wailua area had a higher percentage of whites (38.1%) compared to Kapaa (23.5%) and the island as a whole (29.5%).

The median age in Kapaa, at 34.7 years, was slightly younger than the median age for Kauai as a whole (38.4) and the State (36.2). Conversely, the median age in Wailua (39.3) was slightly higher than the Kauai and State medians.

##### **Housing**

The 1990 census data indicates that the average household size in the Kapaa census tract (3.02 persons) was slightly larger than the island-wide (2.87) and State (2.92) averages. In Wailua, the average household size (2.74 persons) was slightly below the Kauai and Statewide figures.

Both the Kapaa and Wailua census tracts showed slightly lower rates of homeownership (56.5% and 60.5%, respectively) than the Kauai average (61%). However, they were comparable to the State-wide average of 56.5% owner-occupied units.

## **Employment**

The Kauai General Plan notes that, historically, employment trends reflect larger economic conditions, such as the national recession of the 1980's and the weak State economy of the 1990's. Despite these economic setbacks, wage and salary jobs increased at an annual rate of 3% between 1970 and 1998. In 1998, Kauai had approximately 24,900 wage and salary jobs. Future employment growth is strongly tied to tourism. Because this industry is based on discretionary expenditures, it remains vulnerable to events that change consumer spending behavior, as seen most recently in the aftermath of the September 11, 2001 terrorist incidents.

### **3.6.2 Residential Communities**

There are several residential neighborhoods in the project corridor that have the potential to be impacted by the various project alternatives. They include Lower Kawaihau, the small residential neighborhood located between Wailua River and Kuamoo Road, and Wailua House Lots. These communities will be described in more detail in the DEIS.

The project's community outreach program will include public meetings to solicit community concerns about the proposed alternatives. Special efforts will be made to reach minority and low-income groups, and to characterize these populations, as required by Executive Order 12898, Environmental Justice. Potential minority and/or low-income populations in the project area reside in the Wailua House Lots and Kapaa areas.

The DEIS will describe the community outreach program, discuss potential impacts, and determine whether there could be disproportionately adverse impact on minority and low-income populations with any of the alternatives.

Public input on how to most effectively reach and involve minority and low-income populations in the community outreach effort is requested.

### **3.6.3 Economic and Fiscal Issues**

The DEIS will discuss the County's most current population and employment projections for Kauai and describe the existing businesses and economic conditions in the study area. The DEIS will also discuss the economic and fiscal impacts of each of the project alternatives. This includes both short-term and long-term economic impacts.

According to a January 1994 study of the project area, there were 257 businesses along Kuhio Highway, employing almost 1,600 persons. The DEIS will provide updated information on businesses and employment in the study area.

As discussed previously, the areas *mauka* of Kuhio Highway were once extensively cultivated in sugar cane, but have been fallow since Amfac/JMB's Lihue Plantation ceased operation. The DEIS will discuss the current state of the agriculture industry on Kauai and the potential use of former sugar cane lands for other uses, including cattle grazing, diversified agriculture, and wildlife refuge areas.

#### **3.6.4 Visual Resources**

A previous study for the project area identified visual resources including: (1) views to Kalepa Ridge and Nonou Mountains (Sleeping Giant); (2) views along Wailua River, and (3) the coconut groves at Coco Palms Resort and Coconut Plantation.

The Kauai County General Plan identifies Scenic Roadway Corridors, which provide views of Kauai's scenic features. These Scenic Roadway Corridors are designated on the General Plan's Heritage Resources Map. Much of Kuhio Highway within the project area is designated a Scenic Roadway Corridor, specifically the area from Hanamaulu to Coconut Grove. A portion of Kuamoo Road from Kuhio Highway (near Coco Palms Resort) to Opaekaa Falls is also a designated Scenic Roadway Corridor.

Archaeological studies have noted that the Malae *heiau* near Kuhio Highway and its companion Poliahu *heiau* share an important visual relationship. Maintaining the line of sight between these and other cultural features will be a consideration.

The Kauai County General Plan notes that in planning, designing, and constructing highway and roadway improvements, transportation agencies shall balance conservation of the area's natural, historic, and scenic qualities with transportation objectives. It also notes the importance of designing and landscaping major roadways to maintain a sense of open space.

The DEIS will discuss potential impacts of the project alternatives on visual resources, including the designated Scenic Roadway Corridor along Kuhio Highway. Roadway landscaping guidelines to be consistent with the General Plan will also be discussed.

The project alternatives may include a major bridge structure that will cross the Wailua River. This structure could have a major visual impact in the area. Public input is requested regarding the desired features of this bridge. For example, should it be designed as a gateway feature, intended to make an architectural statement, or should it be designed to be as unobtrusive as possible? Should the bridge include bicycle and pedestrian facilities? Input is also requested on an appropriate methodology for evaluating visual impact of this bridge.

### **3.7 Transportation/Traffic**

From its intersection with Kapule Highway at the start of the project area to Waipouli Canal in Waipouli, Kuhio Highway is a three-lane highway, with two lanes northbound and one lane southbound. From the Waipouli Canal to the Waikaea Canal in Kapaa Town, the highway is a three lane highway, with one lane in each direction and the middle lane reserved for multi-directional left turns. From the Waikaea Canal, the highway changes to a two-lane highway with one lane in each direction north to the Hanalei District.

Daily traffic on Kuhio Highway in 2001 was measured at 29,000 vehicles per day, with peak hourly volumes of 1,665 vehicles per hour southbound in the morning and 1,570 vehicles per hour northbound in the afternoon. During the morning peak period, traffic cones are used to temporarily implement contraflow operations so that two lanes are provided for the higher southbound traffic.

The *Kauai Long-Range Land Transportation Plan* (Austin, Tsutsumi & Associates, Inc., 1997) rated conditions on Kuhio Highway as low as a Level of Service F for average daily traffic in Wailua. The conclusions were based on 1995 traffic data, but the Kauai General Plan indicates that current conditions are similar or worse and “extremely poor conditions can be observed in Kapaa Town.” The General Plan also states that traffic is generally congested along the Waipouli-Kapaa highway segment.

In 1995, a temporary Kapaa by-pass route was opened to traffic. The bypass road utilizes existing cane haul roads, leased from private owners. The road connects Kuhio Highway at Waipouli with Olohena Road *mauka* of Kapaa Town. The temporary by-pass road, shown on Figure 1, has provided some relief for traffic on Kuhio Highway through Waipouli and most of Kapaa Town. However, continued use of this substandard road is not an adequate long-term solution.

The DEIS will include traffic estimates and analysis for the project area, based on the *Kauai Long Range Transportation Plan*, which included traffic projections for the year 2020. These projections will be extrapolated to year 2025 and interim year volumes (2005 and 2015) will also be developed. More recent (1999 and 2001) traffic count data will be obtained from the State Department of Transportation and utilized in the analysis.

The DEIS will provide detailed evaluation of the project alternatives, including connector roads, and will include recommendations on intersection laneage at the connector roads. Peak hour levels of service at critical locations will be calculated for each of the alternatives.

### **3.8 Public Facilities and Services**

The DEIS will describe existing public facilities and services, describe the impact of each of the project alternatives on those facilities and services, and potential mitigation measures. The DEIS will also evaluate potential indirect and cumulative impacts on public facilities and services as a result of the project.

#### **3.8.1 Water**

Water service is provided to the project area by the Kauai Department of Water (DOW). The study corridor is served by a network of 12 and 16-inch waterlines serving residences, businesses, and community facilities along Kuhio Highway, in the Wailua House Lots and Kapaa Homesteads. These waterlines are generally located within the right-of-way of existing County roads and Kuhio Highway.

In 1991, the Wailua-Kapaa service area used 2.7 million gallons per day. The DEIS will provide current information on water use within the service area, and the impact, if any, of the various project alternatives.

#### **3.8.2 Wastewater System**

The wastewater system in the project area is comprised of three elements: (1) centralized collection and treatment at the Wailua Wastewater Treatment Plant (WWTP), (2) individual private treatment systems, and (3) cesspools.

Sewage from Kapaa, Papaloa and Waipouli areas is collected along Kuhio Highway and pumped from a sewage pump station near the intersection of Kuhio Highway and Haleilio Road to the WWTP. The WWTP is located at Nalu Road in Wailua, and is the only County-owned WWTP in the project area. Much of the project area is served by cesspools and small private treatment facilities.

The DEIS will provide current information on wastewater demand in the project area, and the impact, if any, of the project alternatives.

### **3.8.3 Solid Waste Disposal**

The County Department of Public works refuse collection crews operate out of three baseyards on Kauai. The Kapaa Baseyard collects trash from Puhi to Anahola, including the study area. The County currently operates one sanitary landfill and four refuse transfer stations on Kauai. The landfill is located in Kekaha, and the transfer stations are at Hanapepe, Lihue, Hanalei and Kapaa. The County is currently attempting to expand the Kekaha Landfill to extend its life to 2007. In addition, the County has been evaluating sites for a new landfill. Final site selection is currently pending, with additional public hearings on the issue planned.

The project could impact future solid waste generation, due to construction-related debris. The DEIS will provide updated information on solid waste disposal facilities, and the impact, if any, of the project alternatives on landfill capacity.

### **3.8.4 Electrical and Communication Systems**

Electrical service is provided by Citizens Utility Company, Kauai Electric Division, the only public utility providing electrical power supply on Kauai. Citizens Utility Company transmits electrical power via a 57.1 kV and two 12.47 kV, three-phase overhead transmission and distribution lines routed along Kuhio Highway. There are overhead transmission and distribution lines along Kuhio Highway through the entire study corridor.

Telephone service is provided by Verizon Hawaii (formerly GTE Hawaiian Telephone). Existing communication service is provided by telephone lines routed along Kuhio Highway.

Cable television service is provided by Garden Isle Telecommunications.

Electrical and communication service providers will be contacted during preparation of the DEIS to update information on existing service and planned upgrades. The DEIS will also discuss potential impacts of Kuhio Highway roadway improvements on the existing overhead transmission lines.

### **3.8.6 Public Services**

Public service providers will be contacted during preparation of the DEIS to update and supplement information on existing facilities and services, assess their adequacy, and identify plans for expanded service over the next ten years.

## **Police, Fire and Public Safety**

Police protection on Kauai is provided by the Kauai Police Department, which includes the Lihue Headquarters and substations in Kapaa, Hanalei and Waimea.

The Kauai Fire Department operates seven stations throughout the island. The project area is serviced by the Kapaa Fire Station.

Kauai Community Correctional Center is a minimum custody facility maintained by the State Department of Public Safety. The facility occupies about two acres and fronts Kuhio Highway, within the project area.

## **Health Care**

There are presently three hospitals on the island—the Kauai Veteran’s Memorial Hospital in Waimea, Samuel Mahelona Memorial Hospital in Kapaa, and Wilcox Memorial Hospital in Lihue. The Mahelona Memorial Hospital is the only hospital located in the vicinity of the study corridor. The hospital is located *mauka* of Kuhio Highway near Kapaa High and Intermediate School.

### **3.8.7 Parks**

The project area includes beach parks, community parks, and a municipal golf course. Wailua River State Park is a State-owned park in the vicinity that could be impacted by the project. It was established in 1954 and encompasses over 1,000 acres of land, of which about 50 acres is developed for recreation. The Wailua River State Park complex is comprised of several smaller park sites, including the Fern Grotto, Smith’s Tropical Paradise botanical garden, Wailua River Reserve area, Kaumualii State Park, Poliahu Park, and the Wailua Marina.

There are four County-owned parks within the project area that could be impacted by the project alternatives. Lydgate Park is located along the shoreline in Wailua, and it is one of the most popular beach parks on Kauai. Wailua Beach Park is located near the mouth of the Wailua River, and is a popular area for both visitors and residents. Kapaa Ballpark is located *mauka* of Kapaa Town and encompasses a large rectangular parcel north of Olohena Road. Kapaa Town Park is located on the northern edge of Kapaa, *makai* of Kuhio Highway. The Wailua Golf Course is a municipal 18-hole golf course located *makai* of Kuhio Highway between Kawailoa and Wailua. It is the only County-owned and maintained golf course on Kauai and is one of the more popular courses on the island.

The DEIS will evaluate the impact of the various alternatives on these and other park sites, in compliance with Section 4(f) of the Department of Transportation Act of 1966 and Section 6(f) of the Land and Water Conservation Fund Act. Section 4(f) states that “it is national policy to preserve public parks, recreation areas, wildlife and waterfowl refuges and historic sites.” The Section 4(f) analysis will evaluate whether the project alternatives will have significant adverse impacts on these resources, whether there are any feasible alternatives, and efforts to minimize harm resulting from the use of such lands.

If improvements to parks or recreation areas have been funded through the Land and Water Conservation Fund Act, Section 6(f) of the act prohibits their conversion to a non-recreational purpose without the approval of the Department of the Interior’s National Park Service. The DEIS will discuss whether any of the project alternatives could impact 6(f) lands. If conversions of Section 6(f) recreational lands are proposed, replacement lands will be necessary.

### **3.8.8 Schools**

Public schools in the project area include Kapaa Elementary School and High School, located *mauka* of Kuhio Highway near the northern end of the project area, and the recently constructed Kapaa Middle School off Olohena Road. The private Saint Catherine School is also located in this area, off Kawaihau Road. This school enrolls students in grades K through 8.

King Kaumualii Elementary School is located in Hanamaulu, just outside the project corridor. The school serves both Hanamaulu and a portion of the Wailua Homesteads.

## **4. Relationship of the Project to Land Use Plans, Policies, and Controls**

### **4.1 Introduction**

The DEIS will discuss the relationship of the project to federal, State, and local land use plans, policies, and controls. This chapter of the EA describes some of the applicable statutes and regulations that will be discussed in the DEIS. Public input is requested on other land use policy issues that should be considered.

### **4.2 State of Hawaii**

Various State plans, policies, and land use controls provide guidelines for development within the State of Hawaii, including the Hawaii State Plan, State Functional Plans, and the State Land Use Plan.

#### **4.2.1 Hawaii State Plan**

The 1996 Hawaii State Plan is the umbrella document in the statewide planning system. It serves as a written guide for the long-range development of the State by describing a desired future for the residents of Hawaii and providing a set of goals, objectives, and policies that are intended to shape the general direction of public and private development.

State plan objectives for transportation facility systems are: (1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe and convenient movement of people and goods; and (2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State (HRS §226-17).

The DEIS will include further discussion on the project's consistency with the Hawaii State Plan and functional plans.

#### **4.2.2 State Land Use Classification**

The State Land Use Commission, pursuant to Chapter 205 and 205A, HRS and Chapter 15-15, Hawaii Administrative Rules, is empowered to classify all lands in the State into one of four land use districts: Urban, Rural, Agricultural, and Conservation. The project

corridor encompasses land in the Urban, Agricultural, and Conservation Districts. Improvements to Kuhio Highway and roadway construction are permitted within the Urban district and no boundary amendment will be required in these areas. Activities, uses, and development in the Urban district are regulated by County governments. However, if any of the project alternatives propose construction activity within the Agricultural or Conservation Districts, a boundary amendment and/or a Conservation District Use Application may be required. Conservation lands within the project corridor include shoreline areas near the Wailua Golf Course, the Wailua River, and *mauka* lands at the base of Kalepa Ridge. Lands in the Agricultural District include most of the former sugar canefields *mauka* of Kuhio Highway.

#### **4.2.3 Coastal Zone Management Act**

The federal Coastal Zone Management Act of 1972 (16 U.S.C. §1451), as amended, requires federal agencies to conduct their planning, management, development and regulatory activities which affect the coastal zone in a manner consistent to the maximum extent practicable with the State's Coastal Zone Management (CZM) program. The State CZM program, implemented by the Office of Planning, makes a consistency determination on projects conducted in the coastal zone. In Hawaii, the "coastal zone" encompasses all lands and waters (except for areas under federal ownership or exclusive control). The Hawaii CZM program will be consulted regarding consistency of the proposed project alternatives with the State's CZM program. The DEIS will include documentation of this consultation.

### **4.3 County of Kauai**

#### **4.3.1 County General Plan**

The Kauai County General Plan is a policy document intended to serve as a planning guide to help improve the physical environment and quality of life. The General Plan also states the County's vision for Kauai and establishes the strategies to help achieve that vision. An updated General Plan was approved in November 2000.

The General Plan includes a chapter on "Building Public Facilities and Services," which identifies new roadway facilities needed by 2020. Among the recommended projects is "construction of a new 4-lane Kapaa By-Pass Road."

#### **4.3.2 County Zoning**

The DEIS will discuss the County zoning designations within the project area and the impact of zoning on each of the project alternatives.

#### **4.3.3 Kauai Long-Range Land Transportation Plan**

The Kauai Long-Range Land Transportation Plan (LRTP) (May 1997) was prepared by the State Department of Transportation in conjunction with the County Planning Department. The LRTP used State-generated economic and population projections to the year 2020. In accordance with federal requirements, all projects receiving federal highway funds must be listed in the LRTP. A Kapaa bypass road is identified in the LRTP and targeted for implementation in the 2006-2020 time frame.

#### **4.3.4 Special Management Area**

Coastal Zone Management objectives and policies (Section 205A-2, HRS) and the Special Management Area (SMA) guidelines (Section 25-3.2 ROH) have been developed to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawaii. Portions of the project area are within the County's SMA. The DEIS will discuss potential direct or indirect impacts on the coastal zone. A SMA use permit will be required for activity within the SMA.

## 5. Determination, Findings, and Reasons Supporting the Anticipated Determination

An environmental impact statement will be prepared because it is anticipated that the project may have significant impacts on the environment. The DEIS will be prepared and distributed for review in accordance with the consultation process in Chapter 343, Hawaii Revised Statutes, as well as Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969.

An analysis of the findings and reasons supporting this determination is included below. This analysis is based on the criteria in Section 11-200-12 (Hawaii Administrative Rules, revised in 1996), Office of Environmental Quality Control.

### 5.1 Significance Criteria

**1. The project does not involve an irrevocable commitment to loss or destruction of any natural or cultural resources.**

The project may involve loss of these types of resources. Much of the land within the Kuhio Highway corridor has been disturbed by human activity throughout most of the 20<sup>th</sup> century. However, natural and cultural resources may be impacted by the project alternatives (i.e., highway improvements, new road construction). These resources may include archaeological and historic sites, ecologically sensitive habitats, wetlands, and view corridors. They will be identified in the DEIS.

**2. The project does not curtail the range of beneficial uses of the environment.**

Project components, such as a new relief route and connector roads, are not likely to curtail the range of beneficial uses of the environment in a regional sense. However, areas that are reserved for or committed to a transportation right-of-way exclude their availability for alternative uses. The specific impacts will depend on the roadway alignment and location of the connector roads.

**3. The project does not conflict 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 project is generally consistent with the environmental goals, policies, and guidelines defined in Chapter 344, HRS, State Environmental Policy. By providing highway improvements to alleviate current congestion and meet future demand, the project is consistent with the policy of "*Establishing communities which provide a sense of identity, wise use of land, efficient transportation...in harmony with the natural environment...*" [§344-3 (2)(C)]. It is also consistent with the guidelines on Transportation, which "*Encourage transportation systems in harmony with the lifestyle of the people and environment and the guideline to encourage public and private vehicles*

*and transportation systems to conserve energy, reduce pollution emission, including noise, and provide safe and convenient accommodations for their users.” [§344-4 (6)].*

However, the project will need to balance environmental goals and other social goals, such as improved mobility. When desired goals and outcomes are compared, project alternatives may be inconsistent with some environmental policies.

**4. The project does not substantially affect the economic or social welfare of the community or state.**

The project may involve displacement of residents and businesses, with substantial, adverse consequences for their economic and social welfare. The DEIS will discuss these personal impacts, as well as indirect and cumulative impacts on population growth, which could affect the community’s economic and social welfare. The project’s primary objective is to enhance current and future transportation conditions, and the completed roadway improvements are expected to have a positive effect on the public’s welfare as a whole.

**5. The project does not substantially affect public health.**

The project is likely to benefit public health on both the individual and community levels. On the individual level, relieving congestion along Kuhio Highway will help to reduce the stress and fatigue experienced by motorists stuck in heavy traffic. Although it may be a simple annoyance for the individual motorist, multiplied by hundreds of drivers, day after day, traffic jams are not insignificant. At the community level, improved roadway conditions are likely to enable faster response times by public emergency vehicles. And, on a larger scale, the project will provide an alternate access route to other parts of the island in the event of a civil defense emergency.

**6. The project does not involve substantial secondary impacts, such as population changes or effects on public facilities.**

Enhancing roadway capacity could result in significant secondary impacts as a result of increased urbanization, development, and future population growth. The project alternatives are being designed to accommodate projected population growth to the year 2025. Roadway improvements alone do not cause population changes, since urban development requires enabling land use policies. However, they are often a precursor to growth by providing access to previously undeveloped areas. The secondary impacts on population growth, demographics and development patterns will be discussed in the DEIS.

**7. The project does not involve a substantial degradation of environmental quality.**

Construction-period impacts will be temporary and short term, and are not expected to degrade environmental quality. However, there are environmentally sensitive areas within the project corridor (e.g., wetlands, habitats for threatened and endangered species, and cultural resources) that could be impacted by the various alternatives. A major new bridge over the Wailua River could be seen as a visual intrusion, depending on the aesthetic sensibility of the viewer. The DEIS will identify the impacts associated with each of the project alternatives, and identify mitigation measures as appropriate.

**8. Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions.**

Beyond the proposed improvements to Kuhio Highway, future development in the study area is unknown. Although the proposed roadway improvements are not linked to other future development, they could indirectly and cumulatively influence the location and extent of future development, particularly in the *mauka* areas. However, as discussed in the Kauai General Plan, population growth is tied to expansion of the economy, and tourism continues to be the foremost engine of growth.

**9. The project does not affect any rare, threatened, or endangered species, or its habitat.**

Rare, threatened, and endangered species and their habitats exist within the project area and could be affected by the project alternatives. These potential impacts will be discussed in the DEIS. Specifically, various roadway alignments may cross wetland and stream habitats. If impacts cannot be avoided, appropriate mitigation measures will be identified for each of the project alternatives.

**10. The project does not detrimentally affect air or water quality or ambient noise levels.**

Ambient noise levels are likely to be affected along the route of a new relief road and connector roads. Air quality and noise studies will be conducted during the preparation of the DEIS. These studies will address short- and long-term impacts of the project, and will propose mitigation measures, as necessary.

**11. The project does not affect nor 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, freshwater, or coastal waters.**

The project corridor includes environmentally sensitive areas such as flood plains, tsunami zones, wetlands, stream and estuaries, and historic sites. The project alternatives may affect, and in turn be affected by these resources and conditions. The DEIS will evaluate the impact of the project alternatives on these environmentally sensitive areas and compare their relative impacts. Appropriate mitigation measures will be identified.

**12. The project does not substantially affect scenic vistas and view planes identified in county or state plans or studies.**

The proposed improvements have the potential to impact scenic vistas and view planes including Scenic Roadway Corridors identified in the Kauai County General Plan, *mauka* views from Kuhio Highway, views along the Wailua River and scenic areas near the Coco Palms Resort and Coconut Grove. For example, a new bridge over the Wailua River could have a substantial impact on scenic vistas and view planes. The DEIS will evaluate the impacts of the various alternatives on these scenic resources.

**13. The project does not require substantial energy consumption.**

In the short term, project construction will require energy in the form of gasoline and diesel fuel. However, in the long term, it is anticipated that overall energy consumption will decrease, as the improvements will alleviate current and future traffic congestion.

## **5.2 Determination**

Based on the significance criteria set forth in Hawaii's Chapter 200 of Title 11, Department of Health Administrative Rules, the applicants have determined that the improvements and actions proposed in this project have the potential to affect the environment in significant ways and, therefore, an Environmental Impact Statement is required. A DEIS will be prepared in accordance with both federal and Hawaii EIS content requirements. It will examine all relevant features of the physical, biological, and man-made environment, evaluate potential impacts associated with the proposed project, and describe mitigation measures.

## **6. Agencies and Persons to be Consulted in Preparing the Draft Environmental Impact Statement**

### **Federal Agencies**

Army Corps of Engineers, Pacific Ocean Division  
Environmental Protection Agency  
Federal Highway Administration  
Natural Resources Conservation Service  
Fish and Wildlife Service  
U.S. Geological Survey  
National Marine Fisheries Service  
U.S. Coast Guard

### **State Agencies**

Department of Agriculture  
Department of Accounting and General Services  
Department of Business, Economic Development & Tourism, Office of Planning  
    Resources and Technology Division  
    Planning Office  
Department of Education  
    Kapaa Elementary School  
    Kapaa High School  
    Kapaa Middle School  
    King Kaumualii Elementary School  
Department of Hawaiian Home Lands  
Department of Land and Natural Resources (4 copies)  
    Wailua State Park  
State Historic Preservation Division  
Department of Health  
    Environmental Management Division  
    Office of Environmental Quality Control (4 copies)  
Department of Public Safety  
    Kauai Community Corrections Center  
Office of Hawaiian Affairs  
University of Hawaii, Environmental Center  
University of Hawaii, Marine Programs  
University of Hawaii, Water Resources Research Center

### **County of Kauai**

Civil Defense Agency  
Department of Planning

Department of Public Works  
Department of Water  
Economic Development Office  
Fire Department  
Office of the County Clerk  
Parks and Recreation Department  
Police Department

**Elected Officials, Community Organizations, and Other Organizations**

Office of the Mayor, Maryanne W. Kusaka

Kauai County Council

Ronald D. Kouchi, Chair  
Randal G.B. Valenciano, Vice Chair  
Bill "Kaipo" Asing  
Bryan Baptiste  
Gary L. Hooser  
Daryl W. Kaneshiro  
James Kunane Tokioka

State Legislators

Representative Ezra Kanoho  
Representative Bertha Kawakami  
Representative Hermina Morita  
Senator Avery Chumbly  
Senator Jonathan Chun

Federal Legislators

Representative Neil Abercrombie  
Representative Patsy Mink  
Senator Daniel Akaka  
Senator Daniel Inouye

Community and Business Organizations

Anahola Community Association  
Audubon Society  
Belles, Graham & Proudfoot, Max Graham  
Best Western Plantation Hale  
Coco Palms Resort  
Coconut Marketplace  
Coconut Plantation Association, Ann Leighton, President  
Grove Farm, Alan Smith  
Holiday Inn Sunspree Resort Kauai  
Jehovah's Witnesses, Kapaa Congregation  
Kamehameha Schools

## *Kapaa Relief Route*

### Environmental Impact Statement Preparation Notice and Environmental Assessment

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Kapaa Business Association  
Kapaa Elementary School, PTSA  
Kapaa High School PTSA  
Kapaa Jodo Mission  
Kapaa Middle School, PTSA  
Kapaa Rotary Club  
Kapaa Shopping Center  
Kauai Burial Council  
Kauai Coast Resort at the Beachboy, Malana de Silva, General Manager  
Kauai Historical Society  
Kauai Outdoor Circle  
Kauai Village Shopping Center  
King Kaumualii Elementary School, PTSA  
Niu Pia Farms, Ltd., David W. Pratt, President  
Mahelona Samuel Memorial Hospital  
Radisson Kauai Beach Resort  
Sierra Club  
Smith's Motorboat Service, Inc.  
Smith's Tropical Paradise  
1000 Friends of Kauai  
Waialeale Boat Tours, Inc.  
Wailua House Lots Homeowners Association  
Waipouli Shopping Center  
Wailua Marina Restaurant  
William Hyde Rice, Ltd.

#### Utility Companies

Garden Isle Telecommunications  
Kauai Electric  
Sandwich Isles Communications, Inc.  
Verizon Hawaii, Inc.

#### Libraries

Hawaii Documents Center, Hawaii State Library  
Kauai Community College Library  
Lihue Regional Library  
Kapaa Public Library

#### Newspapers

Garden Island Newspaper  
Honolulu Advertiser  
Honolulu Star Bulletin

## *Kapaa Relief Route*

### Kuhio Highway Improvements (Hanamaulu to Kapaa) Mailing List Sign-Up Form

I am interested in receiving information and notices regarding the planning and environmental review process for the proposed Kapaa Relief Route.

By regular mail

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

By e-mail

Name: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Please send this form to:

Glenn Kimura  
Kimura International, Inc.  
1600 Kapiolani Boulevard, Suite 1610  
Honolulu, HI 96814

E-mail requests also accepted:

[gkimura@kimurainternational.com](mailto:gkimura@kimurainternational.com)

Telephone:

(888) 898-8886