

United States Department of Transportation
Federal Aviation Administration
Western-Pacific Region
Hawthorne, California

RECORD OF DECISION

FOR
THE PROPOSED MASTER PLAN
IMPROVEMENTS AT
KAHULUI AIRPORT
KAHULUI, MAUI, HAWAII
August 26, 1998

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**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RECORD OF DECISION
PROPOSED KAHULUI AIRPORT IMPROVEMENTS
KAHULUI, MAUI, HAWAII**

I. INTRODUCTION

This document serves as a Record of Decision (ROD) for the Federal Aviation Administration's (FAA) unconditional approval of projects for Phases 1 and Phase 2 of the 1993 Kahului Airport Master Plan. FAA's final approval of Phase 3 will require FAA and Hawaii Department of Transportation (HDOT) to complete additional environmental review and analyses for those long-range Phase 3 components. FAA and HDOT will undertake the review and analyses when the need for these Phase 3 components is foreseeable. Therefore, until such time all Phase 3 component remain conditionally approved.

In addition to clarifying FAA's approval of the various phases, this ROD will discuss: the purpose and need of the proposed project; the actions FAA approved; the alternatives examined in the final Environmental Impact Statement (FEIS) made publicly available on October 31, 1997; the environmental effects of the preferred alternative; mitigation measures that will be implemented; satisfaction of grant assurances; and the decision to approve the action. The nature and extent of FAA's decision is clearly stated in this ROD, the decision document for the proposed projects.

II. BACKGROUND

HDOT proposes the improvements to Kahului Airport that this ROD addresses. The airport is located on the north shore of the island in the Wailuku District of Kahului, on the Island of Maui. The airport encompasses 1,447 acres of land. The airport is second to Honolulu International Airport (HIA) in serving the State of Hawaii's air passenger volume. Its existing 7,000-foot-long Runway 2/20 and 4,990-foot-long Runway 5/23 accommodate overseas and inter-island flights. Runway 2/20's existing length prevents fully-loaded, non-stop flights from Maui to the various destinations that airlines serve. The need to decrease payloads on these aircraft or to stop at HIA to obtain fuel sufficient to reach selected destinations decreases operator efficiency and adds to HIA's air traffic congestion.

In 1982, HDOT completed a Master Plan proposing development based upon the assumption that the airport would accommodate only inter-island traffic. Scheduled, direct air carrier flights from the U.S. mainland to Maui rendered this Master Plan obsolete almost immediately after the Plan's completion. An Airport Development Plan was prepared in 1988, and revised in 1989. That Plan proposed development necessary to meet both inter-island and forecasted overseas aviation traffic demand. An Environmental Assessment (EA) was prepared in 1989 for the Development Plan.

Following publication of that EA, a number of Maui citizens and several environmental organizations brought litigation to the State court. This legal action halted airport expansion until a more thorough assessment of the environmental impacts of the proposed development could be completed. This litigation resulted in a court-ordered stipulation entered into on March 12, 1991 (refer to page 1-4 of the FEIS for a description of the eight-part stipulation). Under the stipulation,

the State of Hawaii agreed to prepare an Environmental Impact Statement (EIS) pursuant to the Hawaii Environmental Policy Act.

In 1992, the State prepared an EIS for Kahului Airport in conjunction with the master planning effort that was in progress then. The State of Hawaii approved the EIS; however as FAA, the lead Federal agency on airport improvements, was modifying that EIS for adoption, litigation was again brought by the same plaintiffs to enforce the court-ordered stipulations. The court determined that the EIS did not meet all the requirements of the 1991 court-ordered stipulations and failed to satisfy legal requirements.

In 1993, the State published a new Kahului Airport Master Plan. This Plan updated guidelines for the proposed development at the airport through the year 2010. This 1993 Master Plan provided the basis for the new EIS. Subsequently, FAA and the State entered into a Memorandum of Understanding to prepare the current Federal and State joint FEIS. FAA published a "Notice of Intent to Prepare an EIS" in the *Federal Register* on April 7, 1994, Vol. 59, No. 67, pg. 16684.

On September 7, 1993, the Department of the Interior's (DOI) National Park Service (NPS) asked to be designated a cooperating agency during the EIS process. NPS made this request due to its concerns on impacts to Haleakala National Park that could result from possible introduction of alien species via the proposed project. On February 16, 1994, FAA denied that request pursuant to 40 CFR 1501.6. FAA stated that the airport, located 15 miles from Haleakala National Park would not affect the Park. In addition, FAA, realized that the project might affect Federally-protected species and noted that DOI's U.S. Fish and Wildlife Service (USFWS), not NPS, is the DOI agency statutorily responsible for determining if an action would jeopardize Maui's native Federally-listed endangered and threatened species. Although NPS was not formally designated as a cooperating agency, it participated in the scoping process, reviewed and commented on the DEIS, and was a member of the Biological Assessment Team Panel (BAT) discussed below.

Two public scoping meetings were held in Maui on May 18, 1994. As a result of these meetings, multiple issues were identified for consideration during the EIS's preparation.

On June 20, 1994, the U.S. Department of Transportation, Federal Highway Administration (FHWA), requested cooperating agency status on the EIS in accordance with 40 CFR, 1508.5. This request was based upon the understanding that the State would request funding for the Airport Access Road under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). On June 24, 1994, FAA granted FHWA cooperating agency status. Subsequently, the State decided to construct the Airport Access Road without using ISTEA funds and so informed FHWA by letter, dated September 18, 1997. Based upon that notification, FHWA formally withdrew its cooperating agency status on October 1, 1997.

FAA released the draft EIS (DEIS) for public review on April 5, 1996 (see *Federal Register*, Vol. 61, No. 67, pg. 15252). In addition, a public hearing was held on May 8, 1996, to afford the public and interested parties the opportunity to comment on the DEIS. The DEIS 45-day public comment period was scheduled to end May 23, 1996; however, FAA extended that period an additional 30 days to June 22, 1996, to accommodate the public requests. FAA and HDOT have considered and responded to all substantive comments, including those received at the public hearing. These responses are included in Appendix "V" of the FEIS.

Since the proposed action may affect Federally-listed endangered and threatened species, FAA convened a Biological Assessment Team Panel (BAT) during FEIS preparation to provide technical assistance to FAA as it prepared a Biological Assessment (BA) required by 50 CFR, 402.12, implementing the Endangered Species Act. The BAT consisted of alien species specialists from various Federal, State agencies, and private organizations that provided assistance and technical input for the preparation of the Biological Assessment concerned with existing and potential island-wide alien species issues on Maui.

The BA evaluated the proposed project's potential effects on Federally-listed and candidate endangered and threatened species and their critical habitats. Appendix "U" of the FEIS contains the Biological Assessment. FAA concluded that alien species introductions will continue to impact protected species and provided recommended mitigation measures to address those impacts. Subsequently, on

July 23, 1997, USFWS, issued a "No Jeopardy" Biological Opinion containing various mitigation measures (the Opinion is included in the FEIS, Appendix "U").

FAA published a "Notice of Availability of the FEIS" for the proposed project in the October 31, 1997 edition of the *Federal Register* (Volume 62, No. 211, pg. 58968). Since December 1997, FAA, NPS, the Council on Environmental Quality (CEQ), and other interested Federal and State agencies have been working together to develop the Alien Species Action Plan, dated August 24, 1998, (ASAP) [See Section VIII.C of this ROD for more information]. The ASAP is included as Appendix "C" of this ROD. This interagency-team refined the mitigation measures in the Biological Opinion into a more fully developed mitigation and monitoring program addressing alien species (species not native to Hawaii), including risk assessment, adaptive management, and effective coordination of efforts by responsible Federal and State agencies.

The ASAP will further reduce and respond to alien species introductions into Maui via aircraft arriving at Kahului Airport. The agencies agree that implementation of the Biological Opinion and the ASAP will protect all of Maui's biotic resources, not just those that are on the Federal list of endangered and threatened species. FAA has made the ASAP part of this ROD and will include appropriate environmental commitments for the elements under the jurisdiction of HDOT, as owner and operator of the airport, in assurances of any Federal grant issued for the proposed project. See the sections of the ROD addressing Federally-listed endangered and threatened species and Alien Species for more information about alien species concerns.

III. PURPOSE AND NEED

The identification of the purpose and need for a proposed action is the primary basis for setting the range of reasonable alternatives. FAA has a statutory charter to encourage the development of civil aeronautics and the safety of air commerce in the United States (49 U.S.C., 40104). As a matter of policy, FAA undertakes airport construction and improvement projects that increase the capacities of airports to accommodate passenger and cargo traffic to the maximum extent feasible so that safety and efficiency increase and delays decrease (49 U.S.C. 47101(a)(7)).

In developing its 1993 Master Plan, HDOT used the 1990 Hawaii State Airport System Plan (SASP) forecasts and examined existing airport facilities and the projected growth in aviation activity through the year 2010. The Plan described various airport improvements needed to accommodate the forecasted growth at acceptable service levels, and identified the runway length needed for fully-loaded, non-stop flights to depart Kahului for various domestic and international destinations.

Through a phased development approach, HDOT identified a number of improvements, which could remedy the deficiencies of the existing airport and accommodate that forecasted demand. The SASP forecasts were updated in 1994 by the "Update of Hawaii Aviation Demand Forecasts." Based on those updated forecasts, HDOT revised the proposed phasing in the 1993 Master Plan. As a result, HDOT has delayed the need for improvements proposed for Phases 2 and 3 by six years (i.e., if a phase was initially projected to begin in 2003, its new projected start date is 2009).

The 1993 Master Plan considered seven alternative development concepts, including the proposed project and the No Action alternative. During the master planning process, the alternatives were presented and discussed at the Master Plan Technical Advisory Committee

Meetings and at public meetings held by HDOTA. Following review by HDOT, FAA, the Kahului Airport Technical and Airport Advisory Committees, the Kahului Airport Citizens *ad hoc* Advisory Committee, the plans were presented to and discussed with airport users, government agencies, and members of the community. Their comments were used as a basis for the recommended master plan that is the subject of this ROD and the FEIS. HDOT adopted this plan and its facilities improvements (hereafter known as the "Proposed Project for Environmental Studies and Environmental Review)." Figure 2-1 of the FEIS presents the selected alternative (proposed project) and the location of each of its component facilities. The specific purpose and need for each component of the proposed project (listed in phased year programs) is discussed below.

PHASE 1 (Present - 2002). Refer to Figure 2-11 of the FEIS.

Property acquisition: HDOT will acquire 58 acres of property in fee and avigation easements. This acquisition is needed to accommodate the airport's forecasted demand for expanded aviation facilities and to reduce the potential for incompatible land uses adjacent to the airport. Phase 1 acquisitions include four acres for the new Hansen Road, nine acres for Runway 2/20 NAVAID relocation, and 45 acres for an avigation easement for extended Runway 2/20's Runway Protection Zone.

Strengthening and extending Runway 2/20: Runway 2/20 will be strengthened and extended 2,600 feet, bringing its total length to 9,600 feet. Associated taxiways will be similarly strengthened, and certain navigational aids (NAVAIDS) will be relocated.

Although, the existing 7,000-foot-long runway adequately serves domestic and international aircraft arriving at Maui, these arrivals do not and will not require the proposed extension to maintain service to Maui. Conversely, the existing runway is not long enough and does not have adequate pavement strength to accommodate departing, non-stop flights fully loaded with passengers, their baggage, cargo, and fuel loads that are bound for the U.S. West Coast or other overseas destinations.

Presently, departing aircraft must fly to the U.S. West Coast with only partial passenger loads. Alternatively, aircraft departing Maui for the same destinations but with heavier payloads must now stop at Honolulu International Airport (HIA) to obtain sufficient fuel to reach their respective overseas destinations. This hinders efficient transport of passengers and places Maui-grown perishables, vital to the area's economy, low on the list of cargo shipped via departing aircraft. This also adds traffic to HIA's congested airspace. In aggregate, these situations reduce the efficiencies of aircraft and the airport serving Maui.

Strengthening and extending Runway 2/20 is needed to accommodate the maximum allowable gross takeoff weights of the DC-10-30. The DC-10 is the airport's critical design aircraft because it has the most demanding operational characteristics in the fleet serving Kahului Airport. The proposed 2,600-foot long southerly extension of Runway 2/20 will allow the airport to: (1) accommodate fully-loaded air carrier aircraft to fly non-stop from Maui to points across the United States (including U.S. hubs) and any future regularly-scheduled international flights; (2) accommodate future projected increases in passengers and cargo departing Maui for destinations outside Hawaii; (3) improve the efficiency and flexibility of aircraft serving Maui; and (4) reduce the need for stopover flights at HIA to refuel. Requirements for lengthening and strengthening Runway 2/20 are discussed in Section 4.0 and Appendix "N" of the FEIS.

West Ramp air cargo facility: A new, state-of-the-art air cargo facility, including an access road, will be constructed on the airport's West Ramp. The new facility is necessary to accommodate existing and forecasted cargo demand primarily carried on passenger aircraft (air cargo is carried in the holds of passenger aircraft, and called "belly cargo"). This facility will ensure that economical and timely air cargo service is available to and from Maui.

New Airport Access Road: A new Airport Access Road from the airport to Puunene Avenue, and interchange at Hana Highway, will be built. The new road would improve airport access and reduce congestion along other airport access routes.

Installation of new fuel storage and loading facilities: Hawaii Fueling Facilities Corporation (HFFC), the airlines' fuel consortium, will construct and operate a bulk fuel storage facility. The facility will consist of two, 8,500-barrel, above ground storage tanks, and connections to existing apron hydrant lines. Each tank will have a berm sufficiently sized to contain a fuel spill from the tank. These facilities will eliminate fuel truck crossings of active runways to reach the passenger terminal apron.

Interim relocation of helicopter apron: The proposed temporary helicopter apron will be built on the tract between the existing runway and the location of Phase 3's proposed parallel runway. These temporary facilities will be used until completion of Phase 3, now planned for 2016.

The proposed apron would enhance airport safety by providing an unobstructed line-of-sight from the Airport Air Traffic Control Tower. It would also provide more separation between aircraft using Runway 2/20 and helicopter operations. Presently, the existing location (less than 1,000 feet from Runway 2/20) can cause missed approaches for aircraft landing on that runway.

As part of Phase 3, HDOT is considering permanent, off-airport, relocation of helicopter operations. This would eliminate the potential for conflicts between helicopters and fixed-wing aircraft that would operate on the existing runway and Phase 3's proposed parallel runway.

Improvements to infrastructure components: Improvements to airport roadways and utility systems are proposed to support planned facility changes and enhance their respective levels of service. The improvements include: a Post Office ramp access road; an airfield perimeter road; fencing around extended Runway 2/20; and expansions and improvements to airport water, irrigation, sewer, storm water drainage, electrical, and communications systems.

PHASE 2 (2003 - 2008). Refer to Figure 2-12 of the FEIS.

Property acquisition: HDOT will acquire 530 acres of property in fee simple and aviation easements. This acquisition is needed to complete facilities planned for Phase 2. The facilities would accommodate the airport's forecasted demand for expanded aviation facilities and reduce the potential for incompatible land uses adjacent to the airport.

The acquisitions include: 488 acres to accommodate the runway proposed for Phase 3 (parallel Runway 2R/20L, two acres for the expansion of the West Side cargo area; and a 40-acre aviation easement for the parallel runway's Runway Protection Zone.

Commercial aviation/ fixed base operator (FBO) Facilities: The proposed lease lots will accommodate the forecasted FBO demand.

Air cargo facilities: This Phase includes constructing a new, state-of-the-art cargo facility and related apron improvements on four acres located on the northern end of the East Ramp. It will be sized to accommodate forecasted cargo demand. Ultimately, a new East Ramp Spine Road will be built, but initial access will be via existing roads.

The East Side facility will only serve all-cargo aircraft, while the West Side cargo facility will primarily serve cargo carried on passenger aircraft. This facility will ensure that economical and timely air cargo service is available to and from Maui.

General aviation facilities: Additional aircraft "T"-hangars for 50 general aviation (GA) aircraft and associated apron facilities will be constructed. These facilities will provide parking and acceptable Levels of Service for future general aviation growth.

Air taxi (scenic air tour) facilities: The proposed apron parking for scenic air tour aircraft and a new air taxi terminal building will accommodate future growth demand. The existing terminal building will be removed because it is located within Runway 2/20's Building Restriction Line.

New airline ground support equipment maintenance building: The existing air cargo building and site will be modified to service ground support equipment.

Additional ground transportation facilities: Five acres of airport property will be made available to private companies to accommodate additional ground transportation services. The existing services will be relocated from the Runway Protection Zone off the end of Runway 5.

Expansion of Kanaha Park: Additional recreational facilities will be provided adjacent to the eastern side of Kanaha Park. These facilities include vehicle parking, roadway access from Alahao Street, and passive recreational facilities such as picnic areas. The proposed airport development action will not physically or constructively use any of the existing or proposed park facilities. HDOT would retain ownership of the area, but the County would coordinate their operations.

Improvements to infrastructure components: Airport roadways and utility systems will be constructed, expanded, and upgraded to support other planned facility improvements. Phase 2 infrastructure changes include: a connection from Alahao Street to Old Stable Road for emergency access; ground transportation subdivision roads; airfield perimeter roads; the north section of an East Ramp access road (Spine road); and expanded and improved storm water drainage, electrical power, and communications systems.

PHASE 3 (2009 - 2016). Refer to Figure 2-13 of the FEIS.

The timeline for Phase 3 is 2009 to 2016. To the extent impacts of Phase 3 components can be reasonably assessed now, including the impacts of the proposed new runway, they are discussed in the FEIS. However, FAA recognizes that components of Phase 3, especially the four noted below, may cause significant environmental impacts:

- new, parallel Runway 2R/20L and its associated taxiways and NAVAIDS;
- off-airport relocation of existing helicopter operations;
- a fuel supply pipeline from Kahului Harbor to the airport bulk fuel storage facility; and
- transient and military apron to provide parking for "overnight" and long-term aircraft.

By letter dated July 2, 1997, (FEIS, pg. 10-3) the Hawaii Department of Business, Economic Development & Tourism (DBEDT), the state office overseeing the Hawaii Coastal Zone Management (CZM) Program, has concurred with HDOT's certification that Phases 1 and Phase 2 of the proposed project is consistent with the CZM. As a result, FAA is unconditionally approving Phases 1 and Phase 2 in this ROD.

Since Phase 3 implementation is beyond the year 2009 time frame, the DBEDT has deferred the CZM consistency determination on Phase 3 components, until that Phase is needed and additional environmental analyses is completed. Therefore, FAA conditionally approves Phase 3 in this ROD. If and when Phase 3 is needed, FAA and HDOT will complete appropriate additional environmental analyses and documentation before FAA unconditionally approves that Phase and HDOT initiates it.

Proposed new parallel Runway 2R/20L and its associated taxiways, and NAVAIDS: When the need for these facilities arises, these components will facilitate the airport's ability to maintain efficient, safe airport operations at acceptable levels of service. The proposed 8,500-foot-long, 150-foot-wide parallel runway (Runway 2R/20L) will allow the airport to accommodate long-term forecasted airfield capacity needs and avoid projected delays.

New/relocated helicopter facilities: When construction of future parallel Runway 2R/20L is necessary, existing helicopter facilities will be moved to an off-site helicopter facility (perhaps, the Old Puunene Airfield site). This relocation of helicopter operations would eliminate potential conflicts between helicopters and fixed-wing aircraft that would operate in the future on Runways 2R/20L. Upon relocating helicopter operations, the area would be developed into commercial lease lots or an area for fixed base operators (FBO's).

Installation of new fuel storage and loading facilities: The proposed fuel supply line will run from Kahului Harbor to the new fuel storage facilities to be built in Phase 1. As a result, fuel will be off-loaded directly from vessels to the airport's fuel storage facilities and eliminate the need to transport fuel via trucks travelling local roadways.

Transient and military aircraft apron: HDOT would build this to provide parking for transient military and civil aircraft. Some temporary shelters for military use will also be built there.

Airfield improvements: Taxiway "F" will be extended northeast to provide a full-parallel taxiway for existing Runway 5/23. The East Side parallel taxiway to Runway 2R/20L will be extended south to the end of the runway. The proposed transient and military apron will provide parking for "overnight" and long-term aircraft. A full Runway Safety Area will be provided for both ends of Runway 5/23. These proposed improvements will facilitate airfield operations and provide additional parking areas for transient and military aircraft. The availability of long-term aircraft parking areas at the terminal to accommodate these aircraft is limited. Relocating these aircraft will provide better gate utilization.

Air cargo facilities: Phase 3 includes expanding the West Ramp cargo facility as proposed in Phase 1. The proposed facilities for air cargo operations will accommodate the forecasted demand, and provide economical and timely air cargo service to Maui residents and industries.

Expansion of ground transportation facilities: Additional airport property will be made available to accommodate expansion of ground transportation facilities located off Keoluni Place.

Expansion of passenger terminal parking lot: Space south of the existing automobile parking lot will be reserved for possible future expansion of vehicular parking facilities.

Improvements to infrastructure components: Airport roadways and utility systems will be constructed, expanded, and upgraded to support the planned facility improvements. Phase 3 components include: completing the East Ramp access road from Hana Highway (spine road); realigning Hana Highway at the northeast end of the airport; completing airfield perimeter roads; and expanding and improving the storm water drainage, electric power, and communications systems, as necessary.

Flight kitchen facilities: An on-airport flight kitchen will provide more efficient catering service to the airlines and reduce catering truck traffic on off-airport roadways. A lease lot will be provided for constructing and operating the facility.

Commercial aviation/Fixed Base operator (FBO) facilities: The proposed lease lots will be modified to accommodate the forecasted FBO demand.

IV. PROPOSED AGENCY ACTIONS

FAA proposes the following Federal actions, which are the subject of this ROD:

- unconditional approval of the Airport Layout Plan (ALP) depicting all components of the Master Plan's Phase 1 and Phase 2 with conditional approval for Phase 3, pursuant to 49 U.S.C. 47107(a)(16);
- potential eligibility for funding from the Airport Improvement Program (AIP) or use of passenger facility charges for those unconditionally approved components of Phases 1 and 2, pursuant to 49 U.S.C. 47107 and 49 U.S.C. 40117(b).

An ALP, prepared in conjunction with the 1993 Master Plan and depicting the proposed improvements, has been processed by the FAA to determine conformance with FAA design criteria and implications for Federal grant agreements (refer to FAR Parts 77, 152 and 157). FAA conditionally approved the ALP on August 20, 1993. In addition, FAA has performed an airspace review (Airspace Case No. 93-HNL-2-NRA) of the proposed development at Kahului Airport. FAA has determined that the proposed development, which is described in the FEIS as the proposed project, is consistent with existing airspace utilization and procedures.

Through this ROD, FAA is making specific approval decisions and taking other actions involving the proposed development. Those decisions and actions include:

1. Environmental approval of the project and the FEIS pursuant to Title 42 U.S.C. 4321 *et. seq.* and 40 CFR 1500 *et. seq.*
2. Unconditional approval of the Airport Layout Plan for Phase 1 and Phase 2 projects (with conditional approval for Phase 3 projects) pursuant to Title 49 U.S.C. 47107(a)(16) and 49 U.S.C. 40103(b). Eligibility for financial support through the Federal grant-in-aid program authorized by the Airport and Airway Improvement Act of 1982, as amended (recodified at 49 U.S.C. 47107) or use of passenger facility charges pursuant to Title 49 U.S.C. 40117(b).
3. A determination that the airport development is reasonably necessary for use in air commerce or in the interests of national defense pursuant to Title 49 U.S.C. 44502(b).
4. A determination of effects upon the safe and efficient utilization of navigable airspace pursuant to FAR Parts 77 and 157.
5. Relocation of the following navigational and visual aid equipment: Glide Slope; Middle Marker; Medium Intensity Approach Lights with Runway Alignment Indicator Lights (MALSR); Visual Approach Slope Indicator (VASI-4); and runway threshold lights.
6. Continued close coordination with the State of Hawaii and appropriate FAA program offices, as required, for safety during construction and runway closures for maintenance or other various reasons. (FAR Part 139) (49 U.S.C. 44706).

V. ALTERNATIVES ANALYSIS

The Alternatives Analysis (FEIS, Section 4) identifies a reasonable range of alternatives to the proposed project. The analysis evaluates each alternative in terms of its ability to satisfy the purpose and need of the proposed project and the alternative's potential for significant environmental impacts. In the FEIS, the FAA analyzed eleven alternatives, including seven master plan alternatives and the No Action Alternative, as required by Title 40 C.F.R. 1502.14(d) and FAA Order 5050.4A, *Airport Environmental Handbook*. The FEIS contains a detailed discussion of each of these alternatives in Section 4.0, *Alternatives To The Proposed project*. The eleven alternatives are:

1. No Action Alternative;
2. 1993 Master Plan Proposed Project Alternative (FAA's Preferred Alternative);
3. 1993 Master Plan Alternative 1 (develop a general reliever airport elsewhere on Maui);
4. 1993 Master Plan Alternative 2 (modest expansion of airfield capacity and runway upgrading);
5. 1993 Master Plan Alternative 3 (similar to preferred alternative, but has slightly shorter runway extension);
6. 1993 Master Plan Alternative 4 (maximum development scenario);
7. 1993 Master Plan Alternative 5 (similar to preferred alternative, but has slightly shorter runway extension and helicopter facilities east of Hana Highway);
8. 1993 Master Plan Alternative 6 (closure of Runway 5/23 and shorter runway extension)
9. Other runway/airfield alternatives (use of Puunene Airport);
10. Intersection of Hana Highway/Airport Access Road Alternative (interchange/intersection alternatives); and
11. Other transportation modes alternative (ocean surface vessels).

The suggested improvements for each of the seven Master Plan alternatives (including the proposed project) vary in complexity and depth. Certain development components are included in all alternative concepts and the proposed project. Some alternatives include sub-alternatives consisting of various combinations of its main alternative. Section 4 of the FEIS describes the alternatives, while Section 2 provides a comprehensive description of each improvement item in the various alternatives. A general discussion of each alternative follows:

1. No Action Alternative:

The No Action Alternative would not fulfill HDOT's purpose and need to adequately serve fully-loaded aircraft departing Maui. This alternative involves maintaining the current airport layout without any of the proposed improvements. Runway 2/20 remains 7,000 feet long. No general aviation, air cargo, or ground transportation improvements are made. The helicopter operation area is not relocated. Kanaha Park is not expanded. The Airport Access Road is not built and vehicular traffic near the airport would remain congested.

Although the No Action Alternative would be the least disruptive alternative in terms of developmental impacts, it would not provide the facilities necessary to achieve the project's purpose and need (see Section III of this ROD). However, for purposes of comparison, and to comply with NEPA and Chapter 343 of HEPA, this alternative was analyzed in detail.

Discussion: When compared to other alternatives, the No Action Alternative would affect the natural resources of the immediate project area and, to a lesser degree, Maui County in general. Nevertheless, the analyses in the FEIS clearly indicate that this alternative would have significant impacts on ground transportation noise, secondary socio-economics, air quality, and ground vehicle traffic.

2. Proposed Project Alternative:

This alternative consists of a number of measures to accommodate forecasted travel demand and improve service at Kahului Airport from the present through 2016. Completion of the proposed action is projected to occur in three phases: Phase 1 covers the present to 2002; Phase 2 covers 2002 through 2008; and Phase 3 covers 2009 through 2016.

The analysis of the long-range (i.e., about 2016), larger projects of Phase 3 – namely, the parallel runway and associated facilities, relocation of helicopters off-airport, the fuel supply pipeline from Kahului Harbor to the bulk fuel tanks and the transient aircraft apron - was performed to the extent practical. Because these projects are beyond the 2009 time-frame, the full impacts of

these Phase 3 projects are not reasonably foreseeable and, therefore, can not be properly assessed now. Thus, FAA conditionally approves the ALP depicting these specific elements of Phase 3. To unconditionally approve these elements and enable HDOT to implement them, FAA will prepare a supplemental or new environmental document when HDOT determines these elements are needed to provide safe and efficient airport operations.

Discussion: FAA selected the Proposed Project Alternative as its "Preferred Alternative," and its "environmentally preferred alternative." FAA selected the proposed project as the "environmentally preferred alternative" because it will provide beneficial long-term benefits (e.g., improved air quality, alien species measures, protection of archaeological sites, etc.) that exceed the latter's long-term negative environmental impacts (e.g., ground transportation noise, secondary socio-economics, air quality, and congested vehicular traffic).

FAA selected the Proposed Project Alternative as its "preferred alternative" after balancing the alternative's environmental impacts against its ability to achieve HDOT's purpose and need, and FAA's mission to undertake airport development projects to increase capacity in the national aviation system. Its significant environmental impacts are offset by substantial improvements in airfield service and capacity for departing aircraft. In addition, of the alternatives analyzed, the Proposed Project Alternative is the prudent alternative. It will provide Kahului Airport with the minimum runway length necessary for aircraft operators to conduct fully-loaded, non-stop departures from the airport to the various destinations those operators serve.

FAA's approval of the Proposed Project Alternative in this ROD signifies that the project meets the FAA standards for approval of agency actions discussed in the ROD. It does not, however, signify FAA's commitment to provide financial support for the runway extension, which is a decision to be made according to separate agency policy.

3. 1993 Master Plan Alternatives:

In addition to the Proposed Project Alternative, as recommended in the 1993 Master Plan, six other alternatives were formulated and considered in the 1993 Master Plan. Certain development components are included in each of the 1993 Master Plan alternatives that are essentially the same or may have minor variations per the alternative.

Master Plan Alternative 1: Of the six 1993 Master Plan alternatives dismissed, this alternative involves the fewest changes to the existing airport. However, in order to provide sufficient capacity to accommodate the forecasted demand, this alternative would require the development of a general reliever airport elsewhere in central Maui. The major components of this alternative are summarized below.

- acquiring land to construct a reliever airport and the Airport Access Road;
- repairing pavement on and strengthening Runway 2/20, but retaining its 7,000-foot length;
- relocating helipads;
- moving general aviation operations off Kahului Airport;
- strengthening the existing general aviation apron for use as transient and military aircraft parking;
- relocating existing hangars that block the line-of-sight from the FAA Airport Traffic Control Tower;
- demolishing and replacing the existing air taxi facilities; constructing a new air cargo facility;
- constructing new bulk fuel storage facilities on the east ramp.

Discussion: This alternative is not prudent because it does not meet the project's purpose and need. It does not provide the runway length necessary for fully-loaded aircraft departing Maui to fly non-stop to overseas destinations. Environmental impacts associated with this alternative, such as noise, would be greater than those associated with the proposed project.

Master Plan Alternative 2: This alternative involves a modest expansion of the airfield capacity and runway upgrading to accommodate non-stop operations from Kahului to the U.S. West Coast. The major components of this alternative are summarized below:

- acquiring land for the Airport Access Road, off-airport land to construct a new heliport, and land on the east side of the airport to allow for a 3,500 foot parallel runway and protection zones;
- extending Runway 2/20 by 1,500 feet to the south to provide a total length of 8,500 feet;
- repairing and strengthening runway pavements;
- relocating the Instrument Landing System;
- constructing a 3,500-foot-long general aviation aircraft runway on the east side of the airport;
- relocating helipads;
- constructing a new general aviation terminal on the east side of the airport;
- constructing additional hold cargo and general cargo facilities;
- constructing new bulk fuel storage facilities on the east ramp;
- constructing a second Aircraft Rescue and Firefighting facilities (ARFF);
- constructing new roadways to service the east side facilities;
- designating an area on the west side of Runway 5/23 for a flight kitchen.

Discussion: This alternative does not meet the purpose and need of the proposed project. Its principal deficiency is that the 8,500-foot runway length is not long enough for nonstop flights of the design DC-10 aircraft (and the similarly-performing L-1011) to all forecasted visitor markets. Environmental impacts associated with this alternative are similar to those of the proposed project.

Master Plan Alternative 3: This alternative is the most similar to the 1988 "Kahului Airport Development Plan." The major components of this alternative are summarized below:

- acquiring land for the new Airport Access Road;
- acquiring all land eastward from the existing airport boundary to Hana Highway for the new parallel runway and protection zones;
- acquiring aviation easement or fee simple title over land on the southern side of Hana Highway that is within the runway protection zone;
- extending Runway 2/20 south 2,500 feet to provide a length of 9,500 feet;
- repairing and strengthening runway pavements;
- constructing a new parallel 8,500-foot-long runway;
- relocating the Instrument Landing System;
- relocating the helipads;
- expanding the general aviation lease lots and T-hangar area to the north and expanding/re-configuring the area at the southern end of the east ramp that is used for helicopter facilities;
- replacing existing air taxi-based support activities;

- developing a military and large transient aircraft parking apron on the west side of Runway 5/23;
- developing a new cargo facility; constructing new access/ service roads to facility on the east side;
- constructing new bulk fuel storage facilities on the east ramp and at the AARF site also located at the northern end of the east ramp.

Discussion: This alternative meets the project's purpose and need and has facilities and environmental impacts similar to those of the proposed project. The major differences between this alternative and the proposed project are the locations of secondary facilities (i.e, facilities other than the runways, airport access roadway and passenger terminals). As proposed, these locations make land-side operations inefficient. Environmental impacts would be similar to the proposed project.

Master Plan Alternative 4: This alternative represents "maximum development" of the airport. It would provide the airport with two, 10,500-foot-long, parallel runways. The major components of this alternative are summarized below:

- acquiring land for the new Airport Access Road, all land eastward from the existing airport boundary to Hana Highway for the new parallel runway and protection zones, and a small amount of land on the southwestern side of East Spreckelsville to allow for the parallel runway's protection zone;
- acquiring land on the east side for the relocation of the helicopter facilities;
- extending Runway 2/20 3,500 feet to provide a length of 10,500 feet;
- constructing a new 10,500 foot parallel runway;
- replacing existing air taxi-based support activities;
- developing a military and large transient aircraft parking apron on the west side of Runway 5/23 and a new cargo facility;
- constructing new access/service roads to facility on the east side, new bulk fuel storage facilities south of the existing helicopter facilities, and AARF facilities at the northern most end of the two connecting taxiways.

Discussion: This alternative meets the proposed project's purpose and need. However, the proposed extension to Runway 2/20 is longer than necessary to accommodate most fully-loaded aircraft flying unrestricted, non-stop routes to the mainland or other destinations. Since this alternative involves extending the runway into the coastal area, it will have more severe environmental impacts than the proposed alternative. Therefore, the FAA did not further consider this alternative.

Master Plan Alternative 5: This alternative is a refinement of Master Plan Alternative 3 based on input from airport users, governmental agencies, and the general public. The major components of this alternative are summarized below:

- acquiring land for the new Airport Access Road, all land eastward from the existing airport boundary to Hana Highway for the new parallel runway and protection zones;
- acquiring an avigation easement or fee simple title over land on the southern side of Hana Highway that is within the runway protection zone;
- acquiring land for a new bulk fuel storage facility;
- acquiring land for new helicopter facilities;
- extending Runway 2/20 to the south 2,500 feet;
- construct a 8,500-foot-long parallel runway;
- repairing and strengthening Runway 2/20;

- relocating the helicopter facilities off airport;
- expanding the general aviation lease lots and T-hangar areas to the north of their present location on the east ramp;
- replacing existing air taxi-based support activities;
- developing a military and large transient parking apron on the north side of Runway 5/23;
- constructing new general cargo and hold cargo facilities and new bulk fuel storage facilities along the western side of the proposed new Airport Access Road.

Discussion: This alternative meets the project's purpose and need and has facilities similar to the proposed project. The major difference between this alternative and the proposed project is the placement of the secondary facilities, which make land-side operations inefficient. Therefore, operational benefits of Alternative 5 are less than the proposed project and it does not avoid any of the significant impacts identified with respect to the proposed project.

Master Plan Alternative 6: This alternative was developed specifically to respond to comments by the public. This alternative was used to explore the implications of closing Runway 5/23. The major components of this alternative are summarized below:

- closing Runway 5/23 would make it possible to site the airline ground equipment maintenance facility, cargo facilities, and flight kitchen facilities within the northward extension of the terminal area;
- closing Runway 5/23 would also make it practical to site the bulk fuel storage facility on the west side of the airport, but land would have to be acquired for a full runway protection zone for both ends of the proposed parallel runway;
- purchasing aviation easement or fee simple title to be obtained over land on the southern side of Hana Highway;
- acquiring additional land to relocate the helicopter facilities; land acquisition for the Airport Access Road;
- extending Runway 2/20 south 1,500 feet;
- constructing a new 7,000-foot-long parallel runway and close Runway 5/23;
- expanding ground transportation to the east, toward the western end of Runway 5/23;
- constructing facilities for the hold and general cargo, equipment maintenance, and a flight kitchen northeast of the main passenger terminal;
- relocating commercial aviation and lease lots where existing helicopter facilities are currently located (commuter air taxi facilities are located northeast of the main terminal);
- relocating scenic air taxi facilities near the FAA Air Traffic Control Tower;
- locating transient aircraft parking adjacent to the site for hold and general cargo and the bulk fuel storage facilities at the intersection of the airport's northern boundary with Kalialinui Gulch.

Discussion: Alternative 6 does not meet the purpose and need because it reduces the airport's overall capacity, limits its operational flexibility, and is not cost-effective. This alternative would require constructing the parallel runway and other capacity enhancement measures during Phase 1 or Phase 2, which is much sooner than forecasts indicate those facilities are needed. For these reasons, FAA did not further consider this alternative or analyze its environmental impacts.

4. Alternatives dismissed from study:

The following alternatives are not presented in the 1993 Master Plan but were suggested during the EIS scoping process, required by the 1991 Court-ordered stipulations, or previously addressed in the 1992 State of Hawaii's EIS:

Use of declared distances for Runway 2/20: The Declared Distance Alternative studied the impacts of increasing the takeoff distance with a stopway and safety area instead of extending the runway to the southwest.

Discussion: To implement this alternative, a 2,600-foot-long stopway and safety area would be constructed on the north end of Runway 2/20. This would put the stopway and safety area into the Pacific Ocean, thereby causing impacts on marine resources. FAA limits the use of declared distances to airports where it is impractical to extend the runway or the runway safety area to meet FAA's design standards. FAA has determined that there is adequate land at Kahului Airport for a runway extension to the southwest (proposed action) without affecting marine resources; therefore, this alternative was not pursued.

New 9,600-foot-long parallel runway: In this alternative, as described in Section 4.4.2 of the FEIS, the current Runway 2/20 would not be lengthened and a 9,600-foot-long parallel runway (Runway 2R/20L) would be constructed.

Discussion: Constructing a new 9,600-foot-long parallel runway in lieu of the proposed Runway 2/20 extension would increase airfield capacity and allow for departures of the airport's design aircraft to fly non-stop to overseas destinations with full payloads. This alternative meets the purpose and need of the proposed project; however, environmental impacts such as noise, loss of farmland and social economic impacts to Spreckelsville are more significant than the proposed project. Constructing the parallel runway in the short-term (Phase 1) would be more costly than extending Runway 2/20, as indicated in Tables 2-2, 2-3, and 2-4 of the FEIS. It is not needed to accommodate unrestricted, non-stop departures from Kahului Airport, since the proposed action would do that. As a result, this alternative was not pursued.

Relocating helicopter and general aviation operations to an off-airport site: This alternative considered relocating helicopter operations and general aviation operations to an off-airport site. As discussed above, the recommendation concerning helicopters is part of the proposed project. Relocation of general aviation operations also required FAA to study forecasted airport capacity issues by delaying the need for an additional parallel runway. This study and the airspace study for helicopter operations identified and evaluated 10 airport/heliport sites that could potentially reduce capacity and airspace concerns at Kahului Airport. These sites (known as Alternatives 1A, 1B through 8) consisted of various combinations of heliports, general aviation airports, and commercial carrier airports. These alternatives are discussed in Section 4.4.3 of the FEIS.

Discussion: The Maui General Aviation Site Selection Study (included as Appendix "R" of the FEIS), indicates that the helicopter apron should remain at Kahului Airport for the short-term (Phase 1 and Phase 2) but be relocated immediately east of the present helicopter hangars. In the long-term (Phase 3), if the parallel runway is necessary, existing helicopter facilities could be relocated to Puunene Airfield, located approximately five miles south of Kahului Airport. The study also states that general aviation operations should remain at Kahului Airport and a parallel runway should be constructed to accommodate increases in aviation demand. Therefore, the part of this recommendation regarding helicopter operations was included in the proposed project, while the part of the recommendation regarding relocating general aviation to an off-airport location was dismissed.

Relocating night cargo flights to Puunene Airport on a temporary/permanent basis: The 1991 Court-ordered stipulation required that the EIS investigate the feasibility of "night cargo operation[s]" at Puunene. The Maui General Aviation Site Selection Study also analyzed the use of the Puunene area as an alternative to night cargo operations at Kahului Airport.

Discussion: The Maui General Aviation Site Selection Study found that there are no Puunene facilities that could be reactivated without major rehabilitation. The environmental impacts of this rehabilitation and the time needed to complete this activity would be comparable to those associated with a new airport. In addition, FAA, through Aeronautical Study No. 95-HNL-20-NRA,

determined that transport operations at Puunene would be incompatible with Kahului Airport operations. This alternative was not pursued due to these facts.

Alternative runway construction phasing: This alternative was a "phased-construction" approach to the 2,600-foot-long runway extension for existing Runway 2/20. Initially, it would require constructing a 1,500-foot-long extension, thereby providing an 8,500-foot-long runway. Then, in the future, another 1,100-foot-long extension would be constructed to increase the runway's total length to 9,600 feet.

Discussion: This alternative was not pursued. Its initial 8,500-foot length does not allow the aircraft fleet serving Kahului to complete full loaded, nonstop flights from Maui to destinations in the mid-west U.S. and beyond. Also, this "phased-construction" approach would add substantial project costs (several million dollars). Runway lights and navigational aids would have to be re-located and re-installed to properly serve each extension phase. Construction costs for each extension phase would require costly construction equipment mobilization/demobilization. Future materials' prices would also be higher. This alternative does not meet the proposed project's purpose and need, nor would it be as cost effective as the proposed project. Therefore, FAA and HDOT did not consider this alternative further, even though its environmental impacts are very similar to the proposed project's.

5. Intersection for Hana Highway/Airport Access Road alternatives:

As part of this airport access road alternative, six alternatives regarding the intersection of Hana Highway and the Airport Access Roadway were studied. Two of these alternatives are presented in Appendix "P" of the FEIS. The first alternative assumed an at-grade intersection, while the second alternative included a conventional, grade-separated, diamond-shaped interchange. Four other intersection/interchange alternatives were proposed but ultimately rejected during the technical and economic evaluation. These alternatives and their evaluations are also presented in Appendix "P" of the FEIS.

Discussion: Both alternatives would generate increased traffic congestion, queuing, and a lower level-of-service than the proposed project, with its 4-lane access road and partial cloverleaf interchange. Therefore, these two alternatives were eliminated from further consideration.

6. Other transportation mode alternative:

Beside aircraft, the only other mode of transportation to the State of Hawaii is via surface vessel. Barges, container freight service, and passenger cruise ships operating on weekly schedules have been somewhat successful. Daily ferry service between the islands has not been successful. Ocean surface vessel transportation is available for interisland and trans-Pacific travel. It is not as rapid as air travel. High-speed waterborne alternatives are not presently available.

Discussion: When compared to air transportation, the use of surface vessels for mainland and inter-island daily service was eliminated from further consideration because of the substantially greater amounts of time needed to travel the same distance by sea. Shippers, business travelers, and tourists consider transit time a very critical factor when they choose their transportation modes and/or destinations. Vessel-oriented transportation to and from Maui would not provide the quality and quantity of service in terms of time that most shippers, residents, visitors, and business travelers seek. Therefore, this alternative was eliminated from further consideration.

VI. ENVIRONMENTAL CONSEQUENCES AND MITIGATION

In accordance with 40 CFR 1505.3, FAA has included the mitigation measures discussed below as part of its decision and conditions of approval for Phases 1 and Phase 2 projects of the 1993

Kahului Master Plan. These mitigation measures are described in detail in the FEIS, the Biological Opinion, and the Alien Species Action Plan (Appendices "B" and "C" to this ROD):

- The mitigation for each affected resource (Appendix "B");
- The Alien Species Action Plan dated August 24, 1998 (Appendix "C");
- The Federal Aviation Regulation (FAR) 14 CFR, Part 150 Airport Noise Compatibility Program (not attached).

FAA will include these measures in grant assurances and conditions for ALP approvals for Kahului Airport. FAA will monitor implementation of these measures during project development. Contract plans and specifications applicable to the proposed project should contain the appropriate measures.

A comparative summary of environmental impacts is presented in Section 1, Tables 1-3, 1-3A, and 1-4 of the FEIS. Practical means to avoid or minimize environmental harm are presented for each applicable impact category found in Section 3 of the FEIS. The impact significance and proposed mitigation and mitigation, for each environmental impact category, if necessary, is included as Appendix "B" to this ROD and summarized as follows:

NOISE: The FEIS, Section 3.2, states that the Runway 2/20 extension would cause noise resulting from aircraft departures on Runway 2/20 to shift slightly to the southwest. When compared to the No Action Alternative, the extension would also reduce incompatible land uses in the East Sprecklesville area. Specifically, the proposed project removes most of East Sprecklesville from the DNL 60 contour. It reduces the area of incompatibility from approximately three acres with the No Action Alternative to less than 0.5 acre. Noise-related incompatible land use in the West Sprecklesville area remains approximately the same with or without the proposed project.

Although there is more than a 1.5-DNL increase in cumulative noise exposure levels in the Puunene area. The proposed project impacts on single family dwellings in this area will be insignificant, since these homes are outside the 65 DNL contour defined as significant under FAA's guidance implementing NEPA. As a result, the proposed project will not cause any significant aircraft noise impacts. FAA does not require noise mitigation measures for Phases 1 and Phase 2 projects of the 1993 Master Plan.

Vehicular noise levels shown in Section 3.2 of the FEIS were calculated using the FHWA Noise Prediction Model. The 2010 analysis shows that future traffic increases will raise the noise levels at existing noise sensitive receptors with or without the proposed project. Compared to the No Action Alternative, the proposed project will decrease highway noise impacts from 0.1 to 6.7 dBA Leq for noise sensitive receptors along Dairy Road/Kuihelani Highway. The 2020 analysis shows a similar increase in noise levels from 1994 levels due to increases in traffic volume; however, the noise levels are 0.1 to 5.6 dBA Leq less than the No Action Alternative. As a result, the proposed project will reduce the vehicular noise along Dairy Road, as the new Airport Access Road will decrease vehicular traffic levels on Dairy Road.

There will be an increase in vehicular noise along the new Airport Access Road alignment and a portion of Hansen Road south of Hana Highway. There are no noise sensitive land uses in these areas. Vehicular noise levels along Dairy Road near the intersection of Puunene and Kuihelani Highways are forecasted to exceed the 67-dBA Leq FHWA criteria for exterior residential noise. This requires the consideration of reasonable and feasible mitigation measures. Therefore, a noise barrier within the roadway right-of-way is recommended in the FEIS along the property lines for homes along Dairy Road/Kuihelani Highway between Puunene Avenue and Hukilike Street. Construction of this barrier is not required; however, HDOT has agreed to discuss this mitigation measure with the affected homeowners and property owners before completing final roadway design. The barrier will be built only if there is a consensus among the owners because barrier effectiveness is substantially reduced if it is not constructed as a continuous structure.

Construction-related noise impacts for the proposed project will be short-term and are insignificant. No mitigation is required.

COMPATIBLE LAND USE: Based upon the Land Use Assessment (FEIS, Appendix "E") and the approved FAR Part 150 Airport Noise Compatibility Program (NCP), the proposed project will have no significant noise impacts on land uses in the airport vicinity. The full impacts of the parallel runway are difficult to assess now, since its construction is expected around 2016. Consequently, if that runway is needed, additional environmental analysis will be completed before it is built to determine its impact and if mitigation measures are necessary.

Proposed roadway improvements will have no significant adverse impact on businesses in the airport area. The roadway improvements may affect businesses along Keolani Place that rely upon present airport traffic, but since they are on month-to-month leases, it is uncertain if these businesses will be operating when the Airport Access Road is built. The Kahului Light Industrial Area is expected to benefit because the proposed roadway improvements will decrease roadway congestion there. These improvements will facilitate vehicular traffic flow into and out of the airport area, and could facilitate customer traffic to businesses located along present airport access routes.

SOCIAL IMPACTS: The elements of the proposed project that have the most potential to significantly affect social and economic resources in the airport area include: the Airport Access Road; the extension of Runway 2/20; the future parallel Runway 2R/20L; the location of general aviation and helicopter facilities; and the Kanaha Beach Park improvements.

The primary question used to evaluate the impacts of these improvements is:

"Will the proposed improvements, which includes a runway extension, cause an increase in the number of visitors, increase the population, number of jobs, economic activity, etc., beyond that which would occur if the proposed improvements were not implemented?"

The Socio-Economic Impact Assessment Report (SIAR) in Appendix "E" of the FEIS found that airport improvements do not cause more visitors to visit any destination. The SIAR also found a significant number of construction jobs would be created and impacts to some airport area businesses could occur. As previously stated above in the Compatible Land Use discussion, the roadway improvement impact to businesses along Keolani Place are unknown.

The proposed project (Phase 1 and Phase 2) will not involve relocating or displacing the population or housing. There will be no significant impacts; therefore, no measures to minimize or mitigate potential adverse impacts are required.

There appears to be a potential significant impact in Sprecklesville if the parallel runway is constructed during Phase 3. These impacts will be reassessed when that runway is needed (projected after 2009). The parallel runway could displace some residents in the East Sprecklesville area and could require relocating/removing structures within the Runway Protection Zone for Runway 2R/20L. This parallel runway would also necessitate relocating current helicopter facilities off-airport. Mitigation measures associated with impacts of the parallel runway, if necessary, will be included in future environmental documentation.

INDUCED SOCIOECONOMIC IMPACTS: Since the proposed project, without the parallel runway, does not induce growth, there are no significant impacts. There will be short-term increases in construction employment, depending upon the size of the construction project. These employment increases would benefit the area's economy due to increased expenditures, but may have short-term adverse housing impacts. Since the proposed project includes improved cargo facilities and the runway extension will enable departing aircraft to carry more cargo, the agricultural markets for Maui-grown products are expected to increase (see the SIAR in Appendix "E" of the FEIS).

Extending Runway 2/20 to 9,600 feet would decrease the demand on the overall statewide airport system due to a slower growth in inter-island flights. This benefit would occur because large, fully-loaded aircraft departing Maui for overseas destinations would not have to stop at HIA to obtain sufficient fuel to reach these destinations. When compared to the No Action Alternative, project-induced reductions in refueling stops would cause a 15-percent decrease in the number of operations at HIA, thereby, helping to reduce the need for future capacity improvements at HIA.

AIR QUALITY: There will be short-term air quality impacts due to construction activities from two sources: (1) fugitive dust from vehicle movement and soil excavation; and (2) exhaust emissions from on-site construction equipment. Fugitive dust will be mitigated by complying with FAA Advisory Circular 150/5370-10A, *Standards for Specifying the Construction of Airports*, construction requirements, and with the State of Hawaii's Air Pollution Control Regulations, which require that visible fugitive dust emissions from construction activity be essentially nil. Emissions from diesel-powered construction equipment is not expected to exceed established nitrogen dioxide and carbon monoxide air quality standards.

Appendix "F" of the FEIS includes an air quality impact analysis for the year 2010 using the Emissions and Dispersion Modeling System (EDMS) which compared the results to both National and State Ambient Air Quality Standards (NAAQS). The entire State of Hawaii is an attainment area for all NAAQS; therefore, FAA is not required to make a conformity determination under Federal Conformity Rules (40 CFR Part 93). Although not required under 49 U.S.C. 47106.(c)(C), the FEIS contains a letter dated January 21, 1997, (see FEIS, pg. 10-2) from the Governor of the State of Hawaii certifying that: "...there is reasonable assurance the State of Hawaii will locate, design, construct, and operate the airport in compliance with all applicable air and water quality standards."

At the airport boundary, the proposed project (without the parallel runway) would cause 12 exceedences of the state's 1-hour carbon monoxide standard. These events would result in 23 fewer exceedences than under the No-Action Alternative. The proposed project with the parallel runway would not cause any exceedences due to fewer delays and reduced aircraft queuing.

Air quality at certain key roadway intersections would exceed both Federal and State standards for carbon monoxide due to overall growth in vehicular traffic. However, these impacts are less severe than the No Action Alternative, since the proposed project will reduce traffic congestion at key intersections, and thereby decrease vehicular carbon monoxide emissions.

WATER QUALITY: There are no significant adverse water quality impacts due to the proposed project, therefore, no mitigation measures are required. However, to minimize impacts and environmental harm during construction, best management practices, consistent with State of Hawaii Department of Health rules and regulations and the State's non-point source pollution management program, will be utilized. Applicable Federal, State, and County rules and regulations as outlined in Section 3.8 of the FEIS will also be implemented to further minimize the effects of grading and other construction activities. Compliance with FAA Advisory Circular 150/5370-10A, *Standards for Specifying the Construction of Airports*, will mitigate construction-related sedimentation or erosion. Although not required under 49 U.S.C. 47106.(c)(C), the FEIS contains a letter dated January 21, 1997, (see FEIS, pg. 10-2) from the Governor of the State of Hawaii certifying that: "...there is reasonable assurance the State of Hawaii will locate, design, construct, and operate the airport in compliance with all applicable air and water quality standards."

DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f): FAA determined that the proposed project itself will not use or significantly impact any wildlife refuges, parklands, recreation areas and, or historically important resources (see Sections 3.9. - 3.10 of the FEIS). As a result, the proposed project, with mitigation described in the Programmatic Agreement among FAA, SHPO, and ACHP (stipulations in Appendix "B" of this ROD), will not physically or constructively use these resources (23 CFR 771.135).

Recreational and park resources:

The proposed project will have no impact on Kanaha Pond Wildlife Sanctuary located on airport property near Runway 5/23 (FEIS, Figure 3-19, following pg. 3-86). In its Biological Opinion, USFWS stated that the proposed action will not jeopardize the Federally-listed threatened or endangered bird species inhabiting the Sanctuary. The proposed project will not physically or constructively use any portion of this wildlife refuge.

Before constructing the pipeline from Kahului Harbor to the airport bulk fuel storage facility (included in Phase 3 scope of work) additional Section 4(f) analysis will be needed since the pipeline's proposed right-of-way is adjacent to Kanaha Pond Wildlife Sanctuary Facility. This analysis will enable FAA to determine if the pipeline would impact the Sanctuary under Section 4(f). If impacts would occur, it will examine prudent and feasible alternatives. If such alternatives are not available, FAA will require measures to minimize any pipeline-related effects to the Sanctuary.

The proposed action would not use Kanaha Beach Park, located north of the airfield. The action includes measures addressing existing Park issues that are unrelated to the proposed project. Nevertheless, to enhance Park facilities, HDOT will improve vehicular parking spaces, park access, and water and sewer systems, and install additional fencing. Airport noise will not affect existing Park activities. As a result, the proposed project will not use any recreational area.

Alone, the proposed project will not significantly affect Haleakala National Park, located approximately 15 miles from the airport. However, it is important to note that any increase in alien species introductions via aircraft arriving at Kahului Airport, *in conjunction* with additional introductions via ocean vessels or other means, could adversely impact Haleakala National Park or Maui's other unique biotic communities (see pg. 3-107 of the FEIS, section 3.11.3.3). To address these concerns, this ROD includes mitigation to minimize cumulative alien species threats to the Park and Maui's biotic communities that could result from any airport-related alien species introductions (Appendices "B" and "C"). The sections of this ROD discussing Alien Species and Federally-listed endangered and threatened species address these issues in detail and how the proposed mitigation will prevent project-specific impacts.

Historically important resources:

This section of the ROD includes details on historic, architectural, archaeological, and cultural resources, and the effects of the undertaking on significant historic and archeological resources. The Programmatic Agreement (PA) signed by FAA, the SHPO, and the ACHP discusses these resources and how FAA and HDOT will protect their integrity and avoid or minimize any possible adverse effects. Stipulations in this PA are made a condition of approval for the project and are included in Appendix "B" of this ROD.

Based upon the mitigation measures in the PA, the proposed project will not result in potentially significant adverse effects on actual or constructive use of archaeological sites under DOT Section 4(f). The mitigation identified for these resources in the PA is necessary to implement the proposed project and to ensure that project does not diminish the resources' historical importance.⁹ Site 1798 consists of a disturbed burial area, secondary reburial area, and buried mash deposits. Site 1777 is a buried cultural deposit. Site 1799 is scattered, unstacked, small, basalt boulders. Site 2849 is a buried horizon of traditional cultural material. All of these sites are significant because they have or are likely to yield important information for research on prehistory or history (FEIS Table 3-36, pg. 3-88). In addition, the disturbed burial areas in site 1798 have traditional cultural value to an ethnic group of the State.

The proposed project protects the integrity of burial areas of site 1798. The mitigation measures in the PA designated the burial areas of site 1798 as a preservation site. Mitigation measures preserve the areas in perpetuity, and call for the construct of a low berm around the areas to divert surface runoff water. The proposed project will not result in actual or constructive use of

site 1798 under DOT Section 4(f). It will not physically disturb or cause proximity impacts that would alter the characteristics that contribute to its value.

As to sites 1777, 1799, and 2849, the PA requires the FAA to determine if avoidance is possible or whether completing data recovery is appropriate to conserve the archaeological information for public benefit. If avoidance is not possible, then these sites are important mainly because of what can be learned by data recovery, and not for preservation in place. In these circumstances, the physical taking of the land would not be adverse in terms of the preservationist purpose of DOT Section 4(f). Reference

23 CFR 771.135(p)(5), DOT Environmental Impact and Related Procedures, Constructive Use, 53 *Federal Register*, Vol. 1369, pg. 13270, dated April 1, 1991.

Building 101, a former ammunition magazine for Naval Air Station Kahului (NASKA), will be considered for reuse during Phase 3 for ground transportation facilities. If reuse is not feasible and demolition of the building to accommodate the proposed facilities is necessary, architectural data recovery of the building according to the Historic American Building Survey Standards will occur, per the PA. It is not now possible to determine the impacts of Phase 3 on this property. When detailed plans for Phase 3 are completed, FAA will re-examine the applicability of Section 4(f) to this property. If demolition of the building is needed, FAA will prepare a Section 4(f) statement addressing the use resulting from adversely affecting that resource and develop necessary mitigation in consultation with SHPO and ACHP.

Building 411, the former site of NASKA's Officer's club, will be avoided through use of an existing road for emergency vehicle access. The project will not disturb Kanaha Pond (site 1783), a historic fishpond in the Kanaha Pond Wildlife Sanctuary. As a result, the proposed project will not use either of these sites.

HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES: Prior airport construction unrelated to the proposed project and intense agricultural activities have probably disturbed most archaeological remains in the airport vicinity. Nevertheless, FAA, the Hawaii State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) signed a Programmatic Agreement (PA) on October 10, 1997 (measures in Appendix "B" of this ROD).¹⁰ HDOT, the Maui/Lanai Islands Burial Council, and the Office of Hawaiian Affairs concurred in the PA.

The PA is part of FAA's approval for this project. The FAA, SHPO, and ACHP developed this PA to protect important historic and archaeological resources that may be affected throughout the 20-year period necessary to complete proposed and future project phases. The PA's stipulations describe measures to protect National Register-eligible properties that proposed or future airport actions may affect. FAA will ensure that these stipulations are implemented.

Review of Figure 3-19 of the FEIS (following pg. 3-86) shows that Phase 1 of the proposed project will have no impacts on historic, architectural, archaeological, or cultural resources because no Phase 1 components are near these sites. In addition, stipulations in the PA require preserving site 1798 in place for perpetuity. Sites 1777, 1799, and 2498 are preserved for future study and potential data recovery, if alternatives to avoid these areas are not available. Historical sites were either avoided (site 411) or will be studied for reuse (site 101).

Depending on the extent of subsurface excavation, proposed East Ramp improvements and Kanaha Beach Park expansion (Phase 2) may impact archaeological features, particularly, buried cultural deposits. Some Phase 3 improvements (e.g., parallel runway with associated facilities, re-located helicopter facilities, the fuel pipeline from Kahului Harbor to the bulk fuel storage facility, and transient aircraft apron) may significantly impact buried archaeological features. These Phase 3 impacts are not reasonably foreseeable and are beyond the scope of this FEIS. They will be assessed in future environmental documents addressing these projects when the time is ripe

to pursue them. During that analysis, the PA will be reviewed and modified, if needed, to protect important resources this phase may affect.

BIOTIC COMMUNITIES: The proposed project itself will not significantly affect biotic communities. The threat of increased introductions of invasive alien species and impacts on Federally-listed endangered and threatened species are discussed below (see the following 2 sections of this ROD) and the section above discussing Section 4(f).

The proposed improvements will have insignificant effects on the airport area's vegetation. However, to minimize environmental harm and mitigate vegetation loss due to grading and/or new construction, proposed buildings will be landscaped with native species. Species selected will be drought-tolerant to reduce irrigation demands and must not attract hazardous wildlife to the airport area as defined in FAA Advisory Circular 150/5200-33, *Hazardous Wildlife Attractions on or Near Airports*. The new and replanted landscape plants will enhance the airport area's vegetation.

FEDERALLY-LISTED ENDANGERED AND THREATENED SPECIES OF FLORA AND FAUNA: There are three Federally-listed endangered bird species (Hawaiian stilt, Hawaiian coot, and Hawaiian duck or Koloa) inhabiting Kanaha Pond Wildlife Sanctuary, located within airport boundaries, about 1.2 miles west of Runway 5/23 (see FEIS Figure 3-18, following pg. 3-75). The Blackburn's Sphinx Moth, which also inhabits the area, has been proposed for listing on the Federal Endangered Species List.

Commentors expressed concern that increased overflights of the Sanctuary would adversely affect these species. Such overflights from Runway 5/23 would occur due to Runway 2/20 being closed. This closure of Runway 2/20 is necessary to accommodate the construction of the 2,600-foot extension and reconstruction of its existing surface.

To address impacts on these species, an observation study was completed (Appendix "J" of the FEIS). USFWS used this study, in addition to the Biological Assessment (BA) dated March 10, 1997 (Appendix "U" of the FEIS), to determine that any short-term duration of overflights would not jeopardize the continued existence of any Federally-listed or candidate species. USFWS presented this finding in its July 23, 1997, Biological Opinion (included in Appendix "U" of the FEIS). Since the proposed action would not adversely affect Federally-endangered Hawaiian stilts, coots, or ducks no mitigation to protect these species is required.

Among other issues, the BA addressed the project's impacts on the introduction rate of alien species through Kahului Airport, as that rate pertains to Federally-listed endangered and threatened species. To assist in and provide guidance during the BA's preparation, the FAA formed and convened the Biological Assessment Technical Panel (BAT) comprised of recognized alien species specialists from Federal, State, local and private organizations. The BA concluded that the alien species introduction rate due to tourists currently traveling to Maui via airplane and ship, and cargo delivered to Maui by air and sea will continue to impact Maui's listed or candidate species, and other plant and animal species with or without the proposed project.

Based on the BA, USFWS issued a "No Jeopardy" Biological Opinion on July 23, 1997. The Biological Opinion's mitigation measures will minimize the effects of alien species on Federally-listed species. In addition, supplemental mitigation, based on the Biological Opinion, was developed and is presented in an Alien Species Action Plan (ASAP) dated August 24, 1998 (Appendix "C" of this ROD). Federal and State agencies cooperatively devised the ASAP to further minimize the chance of alien species introductions via aircraft arriving at Kahului Airport. The Biological Opinion, in conjunction with the ASAP, will enhance the protection of Maui's Federally-listed endangered and threatened species.

FAA makes the requirements of the Biological Opinion and the ASAP conditions of its approval. In addition, the State of Hawaii is committed to implementing the ASAP, in cooperation with appropriate Federal agencies.

ALIEN SPECIES: Flights arriving on Kahului Airport's existing runways, in conjunction with oceanic vessels and other factors, provide pathways for alien species introductions to Maui. Alone the proposed project is not expected to significantly contribute to these introductions because it is designed to enable fully-loaded aircraft departing Maui to fly non-stop to overseas destinations. Nevertheless, because there are serious concerns about the airport as an alien species entry point and because alien species introductions pose serious problems to the state's ecosystem, any alien species introductions via the airport, in conjunction with alien introductions via other entry points, may lead to significant cumulative impacts. As a result, the FEIS analyzed the risk as a significant cumulative impact.

As part of the FEIS's impact analysis, FAA prepared the Biological Assessment (BA) mentioned in the previous section of this ROD. The BA concluded that the alien species introduction rate due to tourists currently traveling to Maui via airplane and ship and cargo delivered to Maui by air and sea will continue to impact Maui's listed or candidate species, and other plant and animal species with or without the proposed project.

As noted in the section above, USFWS issued a "No Jeopardy" Biological Opinion for the proposed project on July 23, 1997 (FEIS, Appendix "U"). The mitigation measures included in the Biological Opinion are discussed in Sections 3.11.3, 5.1.6, and 8.2.5.23 of the FEIS and included in Appendix "B" of this ROD. They are part of FAA's approval for this project. It is important to note that although USFWS requires those measures in its Biological Opinion to protect Federally-listed endangered and threatened species, they were not designed solely to stop alien species threats to Federally-protected species. Therefore, the Biological Opinion's mitigation should reduce introductions that threaten all of Maui's biotic communities.

To further address these introductions, supplemental mitigation specific to alien species and based in part on measures in the Biological Opinion, was developed. That mitigation comprises the Alien Species Action Plan (ASAP) dated August 24, 1998 (Appendix "C" of the ROD). FAA and other Federal and State agencies developed the ASAP to provide additional safeguards to further minimize alien species introductions via aircraft arriving at Kahului Airport. These measures, in conjunction with those of the Biological Opinion will enhance the protection of Maui's biotic communities. FAA's approval of the proposed project requires HDOT compliance with the ASAP.

WETLANDS: Three ephemeral wetlands (i.e., wetlands that only exist when sufficient water supplies are available) were delineated on airport property. These sites are located north of the airport operational area and depicted in Figure 3-22 of the FEIS. The proposed Emergency Roadway between Alahao Street and Old Stable Road will be aligned to avoid these intermittent wetlands; therefore, no mitigation measures are required. The proposed improvements will not affect Kanaha Pond Wildlife Sanctuary, the primary wetland habitat within airport boundaries.

FLOODPLAINS: The northeastern end of Runway 2/20, portions of Runway 5/23, and all of the beach areas are located within the tsunami flood zone (V23) as indicated by the Flood Insurance Rate Maps (FIRM). Various other airport components are within the 100-year flood zone (FEIS, Figure 3-23, following pg. 3-115). As a result, new buildings will be designed and constructed to meet Federal and State flood zone and coastal high hazard rules and regulations to minimize potential damage from tsunamis and flooding. The proposed project will not significantly encroach upon the floodplain, nor will it adversely affect beneficial floodplain values; therefore, no mitigation measures are required. Except for the Airport Access Road, the proposed airport improvements will not affect the project area's hydrology. There will be no impact to drinking water aquifers.

The Airport Access Road will be an elevated structure with drainage culverts and inlets of volumes that will not impede flows; therefore, the Road will not change the drainage basins' existing flows or water volumes. In addition, the proposed project includes expanding and improving the airport's storm drainage system to remove storm water from the airport area more effectively and efficiently, but it will not cause flooding.

COASTAL ZONE MANAGEMENT PROGRAM: Phases 1 and Phase 2 of the proposed project has been determined to be consistent with the Hawaii Coastal Zone Management (CZM) Program prepared by the Hawaii Department of Business, Economic Development & Tourism (DBEDT) (FEIS, pg. 10-3). In addition to being consistent with the CZM, these phases, which will also occur within the existing Maui County Special Management Area (SMA), will conform to SMA requirements. Therefore, there are no significant impacts and no mitigation measures required to protect coastal zone resources.

Since Phase 3 of the proposed project is not planned prior to 2009. DBEDT has deferred CZM consistency determination on Phase 3 until additional environmental analysis and documentation are completed.

COASTAL BARRIERS: In 1993, a map area designated as HI-09, near the Kahului-Wailuku Wastewater Treatment facility, was proposed to be added to the Hawaii Coastal Barrier Resource System (CBRS). A draft Pacific Coastal Barriers Study was prepared by USFWS. An HDOT review of that study found that the proposed Hawaii CBRS would not encompass present or future statewide airport operations. As a result, CBRS requirements do not apply to the proposed project. This is consistent with both the State and national Coastal Barriers Resource programs.

The fuel supply line proposed for Phase 3 will lie outside and south of the barrier system. This project component is planned beyond the 2009 time frame; therefore, impacts on the barrier system resulting from potential fuel line rupture are not known and cannot be assessed now. Additional environmental documentation addressing this issue will be completed before FAA approves or HDOT begins constructing the fuel supply line.

WILD AND SCENIC RIVERS: There are no Wild and Scenic Rivers listed in the National Inventory for the Island of Maui. Therefore, no Wild and Scenic Rivers would be impacted by the proposed project.

FARMLAND: Based on the evaluation criteria of the Natural Resource Conservation Service (formerly, the Soil Conservation Service) Form AD-1006, "Farmland Conversion Impact Rating," the proposed project will not significantly impact prime and unique farmlands. As a result, FAA requires no mitigation measures specifically related to airport improvements. Form AD-1006 is included in Appendix "E" of the FEIS.

The agricultural land to be acquired in Phase 1 will remove 139 acres from active sugar cane production. In the future, the 29-acre tract located between existing Runway 2/20 and proposed parallel runway 2L/20R would be unusable for sugar cane, since the height of sugar cane stocks would obstruct the line of sight for pilots using those runways. This 168-acre deletion from sugar cane production will not adversely affect A&B Hawaii, Inc., the primary landowner.

The agricultural land to be acquired in Phase 2, between the existing airport boundary and Hana Highway, will remain in agricultural production until HDOT needs it for aviation purposes. The long-range nature for uses of these lands beyond Phase 2, (post-2008) make the determination of significance for these impacts difficult to assess now. Therefore, before FAA unconditionally approves the parallel runway or other uses of these lands, a separate environmental document will be prepared to assess impacts and provide mitigation measures, if necessary. A&B Hawaii, Inc. has also deferred its analysis of this conversion to non-agricultural use until HDOT determines the parallel runway is needed as part of Phase 3.

ENERGY SUPPLY AND NATURAL RESOURCES: The proposed project will have no significant adverse impacts on energy supplies and natural resources. However, to conserve energy, the proposed project includes expanding and upgrading the airport's electrical distribution and management systems.

LIGHT EMISSIONS: There will be an increase in light emissions due to installing additional airfield and highway lighting.

The new runway lighting will not include strobe, multi-directional, or other types of lighting that might shine directly into residences or businesses in the airport vicinity. Although, the proposed project will have no significant impacts, HDOT will implement certain measures to minimize any off-airport lighting effects. Such measures include: properly shielding new lighting; installing new lighting in compliance with applicable lighting codes and regulations; and following the guidelines published by the State Department of Land and Natural Resources for the marine bird known as the Newell's Shearwater.

SOLID WASTE IMPACTS: There are currently two solid waste disposal landfill operations on Maui. They are located in Central Maui and Hana. The Central Maui Landfill is located approximately four miles southeast of the airport in the former Puunene quarry site. The Hana Landfill is located approximately 50 miles east of the airport. The locations of these landfills will not pose a hazardous wildlife threat to aircraft.

The proposed project will have no significant impacts on these solid waste collection and disposal sites. These two landfills can accommodate the estimated volumes of trash resulting from airport activities. If any hazardous materials removal and disposal is needed, it will be done according to applicable Federal and State rules and regulations. The demolition and or relocation of existing structures containing asbestos will comply with Federal, State (HRS Chapter 342-P-1) and OSHA requirements. If petroleum contaminated soils are found during construction, HDOT will remediate the contamination on-site, following all applicable rules and regulations (Appendix "B" of this ROD).

CONSTRUCTION IMPACTS: The proposed project will have no construction-related significant impacts. However, there may be a short-term significant increase in the number of construction workers on Maui. A 12-month construction period for the runway expansion and reconstruction is anticipated. The proposed roadway improvements will cause short-term impacts on roadways in the airport vicinity, especially on Hana Highway and Dairy Road. An 18-month construction period is anticipated for construction of the Airport Access Road, which includes realigning Hansen Road.

Construction impacts are generally short-term and localized. Impacts primarily due to heavy equipment noise, fugitive dust emissions resulting from construction activities and potential water quality impacts resulting from runoff and erosion of disturbed areas are expected. These short-term impacts and measures to mitigate those impacts are discussed under the respective impact categories of noise, air and water found in Sections 3.3, 3.7 and 3.8, respectively, of the FEIS and in the corresponding sections of this ROD.

CUMULATIVE IMPACTS: Section 5 of the FEIS discusses the possible cumulative impacts of the proposed project when combined with reasonably foreseeable regional and statewide projects and the impacts of those projects in the airport environs. The FEIS discusses 11 other known planned improvement projects and their respective mitigation measures. Mitigation measures discussed in Section 5 of the FEIS and required by Appendices "B" and "C" of this ROD would reduce the cumulative impacts on water demand, ground traffic congestion, drainage, and the introduction of alien species.

VII. FAA ADMINISTRATIVE ACTIONS

FAA has fully participated in the proposed project's planning process and advised HDOT throughout that process. All appropriate FAA Divisions in the Western-Pacific Region, were involved during the development and review of the proposed Kahului Airport improvements. Each Division has made the programmatic findings and decisions under their assigned purview necessary to support their respective approvals of the proposed projects. The following paragraphs discuss each Division's activities as they relate to the proposed projects.

AIRPORTS: The Western-Pacific Region Airports Division (which includes the Honolulu Airports District Office) has been involved in the planning, evaluation, and coordination process of the proposed projects since the beginning of the Master Plan Update. This included reviews of the Airport Layout Plan. The Master Plan and the FAR Part 150 Noise Compatibility Program (NCP), were prepared concurrently. The proposed improvements recommended in the Master Plan Update, specifically the proposed new parallel runway, were analyzed in the NCP. FAA approved the NCP on August 30, 1996. This plan includes noise abatement and mitigation measures to reduce existing and future aircraft noise impacts on communities surrounding Kahului Airport.

FAA initiated the environmental evaluation process for the proposed project in 1994. In the early stages of that process, FAA realized that the project would generate substantial controversy from residents in the airport area. Therefore, FAA decided to prepare an EIS in lieu of an environmental assessment.

An FAA representative conducted two public scoping meetings on May 18, 1994, at Kahului Airport. The DEIS was released for public review on April 5, 1996. The 45-day public comment period was scheduled to end May 23, 1996. FAA extended the review period another 30 days (from May 23, 1996 to June 22, 1996) to accommodate time extension requests from the public so they could complete their reviews of the document and submit comments. As EIS preparation progressed, numerous meetings were held with the airport representatives, the consultant assisting FAA prepare the EIS, and other Federal, State and local agencies, as appropriate. A public hearing on the DEIS was held at Kahului Airport on May 8, 1996.

FAA has considered all reasonable comments received during the 75-day public comment period, including those received at the public hearings. FAA responses to these comments appear in Volumes IV and V of the FEIS. Before publishing the FEIS, FAA coordinated various drafts and certain portions of the FEIS for review and comment with other FAA Divisions and other agencies.

FAA approved the FEIS on October 2, 1997. On October 31, 1997, the U.S. Environmental Protection Agency (EPA) issued a "Notice of Availability of the FEIS" in the *Federal Register*, thereby making the FEIS available to the public.

In addition to the environmental process, FAA made numerous determinations and findings under Title 49 U.S.C. Part A (formerly, the Federal Aviation Act of 1958, as amended) based on the application of FAA standards, criteria, and guidelines, including the following:

- The Honolulu Airports District Office, of the Western-Pacific Region, has reviewed the Airport Layout Plan (ALP) as it was developed during the Master Plan and coordinated it with the Air Traffic Division, Flight Standards Division, and the Airways Facilities Division for their respective technical review and comment. This was accomplished using the Non-Rule Making (NRA) review process. The Honolulu Airports District Office determined that the airfield layout would be a safe and efficient utilization of airspace. FAA "conditionally approved" the ALP (i.e., approved the proposed ALP as to safety, efficiency, and utility from an airspace perspective), but withheld final approval pending environmental review on August 20, 1993.

- Having completed the subject FEIS, FAA is issuing this ROD, which signifies FAA's "unconditional approval" of all components of Phases 1 and Phase 2. Phase 3 components are not approved until FAA completes its environmental analyses and issues a ROD for those project components.
- The ALP complies with FAA Advisory Circular 150/5300-13, *Airport Design*, as amended by Changes 1 through 5. Copies of the FAA-approved ALP document are located in the Airports District Office, Honolulu, Hawaii, and the Airports Division office in the Western-Pacific Region, Hawthorne, California.

AIR TRAFFIC: The Air Traffic Division (AT), including personnel from Kahului Airport's Air Traffic Control Tower, participated in preparing the FEIS. AT concurred with the FEIS's contents concerning the construction of the proposed runway extension. AT also concurred with the air traffic changes associated with noise mitigation measures identified in the Record of Approval for the 1996 NCP.

The runway extension will require preparation of new flight procedures, including visual and instrument procedures, missed approach procedures, and departure procedures to accommodate the increased length of Runway 2/20. As a result of approving the proposed project, AT will be required to implement air traffic control and airspace management procedures pursuant to the safe and efficient use of navigable airspace, as they relate to the operation of extended Runway 2/20.

FLIGHT STANDARDS: The Flight Standards Division (FS) has participated in preparing the FEIS as it relates to flight procedures. FS also reviewed the ALP depicting the proposed runway extension and future parallel runway projects at Kahului Airport. Before commissioning use of the future parallel runway, FS will develop approach and departure procedures for that runway. Instrument approach procedures for the proposed Runway 2/20 extension will be revised to accommodate that action. Development of the various flight procedures for the extended runway will begin after approval of this ROD.

AIRWAY FACILITIES: The Airway Facilities Division (AF) has also participated in preparing the FEIS and concurred with the document concerning the construction of the proposed extension of Runway 2/20. AF supports the relocation of various existing navigational aids, including the Medium Intensity Approach Lighting System with Alignment Indicators (MALSR), Instrument Landing System (ILS) equipment, and Visual Approach Slope Indicators (VASI).

The extension of Runway 2/20 will require relocating existing runway threshold lights and the glide slope antenna. The relocation and establishment of the various navigational aids as discussed are preliminary. Actual technical specifications and other requirements must be determined during the detailed design process.

VIII. MAJOR ISSUES

A. Review comments: The FEIS, Appendix "V", provides public hearing testimony and comments FAA received on the DEIS. This appendix includes comments from Federal, State and County of Maui agencies, and interested individuals. The major comments received concerned international flights, growth, alien species, and the Kanaha Pond Wildlife Sanctuary. Responses to comments are noted in the margin of each letter, with a code referring to the applicable comment response. The FEIS contains FAA's responses to all comments received on the DEIS. FAA received two comments on the FEIS. Copies of those comments and FAA's responses to them are in Appendix "A" to this ROD.

B. Extending Runway 2/20: Aircraft arriving at Maui's Kahului Airport are adequately served by Runway 2/20's current length and will not be affected by the proposed project. However, that runway's length and limited pavement strength are not sufficient to serve fully-loaded, non-stop departures from Maui to destinations in the mainland United States and the Pacific Rim.

It is important to note that current runway conditions limit the payloads and fuel loads that aircraft departing Kahului Airport can carry. These conditions often require aircraft to carry less payload or stop at Honolulu International Airport (HIA) to load fuel necessary to reach their respective destinations. This is costly and inefficient for airlines and cargo operators. It increases aircraft fuel consumption, exacerbates air and noise pollution around HIA, and adds to HIA's already congested situation. Additionally, since existing runway conditions limit aircraft payload, Maui's produce industry is adversely affected. Weekly, tons of fresh agricultural and floral products that cannot be transported rapidly or efficiently to overseas markets due runway-related payload limitations departing aircraft presently experience.

The purpose of the proposed strengthening and lengthening of Runway 2/20 is to provide sufficient runway length to enable the departing aircraft to reach mainland and Pacific rim destinations. The lengthening and strengthening of Runway 2/20 was not to accommodate new international or domestic arrivals.

C. Alien species: As discussed above in Section VI, ENVIRONMENTAL CONSEQUENCES AND MITIGATION, the introduction of alien species on the Island of Maui as a result of direct international and domestic flights concerns various agencies, organizations and individuals. To more fully address these concerns, FAA and the State of Hawaii prepared a detailed Biological Assessment (BA). A copy of the BA is included in Appendix "U" of the FEIS. To prepare this document, FAA and the State of Hawaii created a Biological Assessment Technical Panel of recognized alien species specialists. Representatives of both USFWS, the Federal agency statutorily responsible for protecting the Federally-listed threatened and endangered species of concern, and the NPS participated on this panel.

The information and analysis provided in the BA result from informal consultation that FAA initiated in 1996. Subsequent to completing the BA, FAA initiated formal consultation with USFWS regarding issues pursuant to Section 7 of the Endangered Species Act of 1973. To assist USFWS in its review of the final BA and preparation of the Biological Opinion, FAA agreed to extend the formal consultation period. The formal consultation resulted in a "No-Jeopardy" Biological Opinion. This Biological Opinion appears in Appendix "U" of the FEIS.

Subsequent to the publication of the FEIS on October 31, 1997, the NPS manager of the Haleakala National Park repeated his earlier concerns about the potential impacts of alien species on the Park. The focus of NPS concerns was to assure that the mitigation program was thorough, effective, and would be implemented.

During the intervening 7-month period, FAA, CEQ, DOI, the State of Hawaii, and a number of Federal and State agencies concerned about alien species introductions to Maui developed the Alien Species Action Plan (ASAP). The ASAP is included in this ROD as Appendix "C." The ASAP will be implemented as described to minimize the risk of alien species introductions via aircraft flying to Maui.

IX. THE AGENCY FINDINGS

In accordance with the guidelines described in Paragraph 94 of FAA Order 5050.4A, *Airport Environmental Handbook*, FAA has made the following determinations for this project based upon appropriate information and analysis set forth in the FEIS and the administrative record.

A. The project is reasonably consistent with existing plans of public agencies for development of the area [49 U.S.C. 47106(a)]. Appendix "E" of the FEIS presents a detailed analysis of land use impacts of the proposed development and various alternatives. The airport is located within Maui County's Wailuku-Kahului Community Plan. The proposed development is consistent with this Plan.

B. Fair consideration has been given to the interests of communities in or near the project location [49 U.S.C. 47106(b)(2)]. Throughout the EIS preparation process, government officials, agencies, organizations and residents of nearby communities have been consulted, or have participated in activities that have contributed to the document's preparation. Section 10 of the FEIS contains information on the various agencies, organizations and persons consulted. Sections 10.4 through 10.7 of the FEIS identify the persons and organizations who received the DEIS based on legal jurisdiction or special interest. Appendix "V" of the FEIS contains copies of comments FAA received and FAA's responses to these comments.

Two public scoping meetings were held on May 18, 1994. A public hearing for the EIS was held at Kahului Airport on May 8, 1996. The Maui/Lanai Island Burial Council and the Office of Hawaiian Affairs were invited to participate as both consulting and concurring parties in the preparation of the Programmatic Agreement (PA) among FAA, SHPO, and the ACHP. The PA provided information on how FAA would minimize project-induced impacts on properties on or eligible for listing on the National Register of Historic Places.

C. Appropriate action has been or will be taken to restrict, to the extent reasonable, the use of land in the vicinity of the airport to purposes compatible with airport operations [49 U.S.C. 47107(a)(10)]. In its June 24, 1997, letter, the State of Hawaii provided the required land use assurances to the FAA. The letter states that HDOT assures that appropriate action, including the enforcement of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of Kahului Airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. Section 3.3.1, page 3-22, of the FEIS, states that the State Land Use Commission has designated three different land use districts within the present airport boundary. To accommodate project-induced land use changes, the Commission, through an administrative action, must change the land use designation from "Agricultural Lands" to "Urban Lands" for lands the proposed action will utilize. As a requirement of the 1991 court-ordered stipulations, this land use designation change can not be accomplished until the EIS document is completed and accepted.

D. Appropriate air and water quality certificates have been or will be secured for projects involving airport location, runway location, or a major runway extension. [49 U.S.C. 47106(c)(1)(B)] The proposed action, as defined in FAA Order 5050.4A, *Airport Environmental Handbook*, requires that the Governor of the State of Hawaii, certify that the proposed project will be designed, located, constructed and operated in accordance with applicable air and water quality standards. On January 21, 1997, the Governor of Hawaii provided a letter verifying that there is reasonable assurance that the proposed action will comply with all applicable air and water quality standards (see FEIS, pg. 10-2).

E. For actions involving airport location, runway location, or a major runway extension, and found to have a significant adverse effect, there shall be evidence to support the conclusion that (a) there is no feasible and prudent alternative, and (b) all reasonable steps have been taken to minimize adverse effects [49 U.S.C. 47106(c)(1)(C)]. Table 1-3 of the FEIS indicates that the proposed project, including the extension to Runway 2/20, will not create any significant adverse effects on the human environment. By itself, the impact of the proposed project on the introduction rate of any alien species is insignificant; however, alien species introductions via the airport, in conjunction with any other means, is considered a significant cumulative impact to Maui.

The table also outlines the various mitigation measures necessary for various non-runway extension development projects such as the access road, drainage improvements, and lighting.

The analyses of impacts and proposed mitigation measures, described in the various environmental impact categories in Chapter 3 of the FEIS, support FAA's determination that all reasonable steps have been taken to minimize the proposed action's adverse environmental effects.

FAA's analysis of Alternative 1 (NO Action) and Alternatives 3, 5, 6, 7, 8, 9, 10 and 11 shows that none of these alternatives would adequately satisfy the proposed project's purpose and need, as discussed in the FEIS and this ROD. Although Alternative 4 (i.e., extending Runway 2/20 to a total length of 10,500 feet) would meet the project's purpose and need, its longer length is not necessary to accommodate the proposed project's goals; consequently, it would be imprudent to select that alternative. As a result, FAA has determined that there is no possible and prudent alternative to the proposed project and that every reasonable step has been taken to minimize the adverse effect.

F. The proposed action does not involve the use of lands subject to Section 4(f) of the Department of Transportation Act [49 U.S.C. 303]. As documented in Section 3.9.3 of the FEIS, FAA determined that the proposed project will not physically or constructively use Section 4(f)-protected lands. Kanaha Pond Wildlife Sanctuary (a state wildlife sanctuary), and Kanaha Beach State Park are located in the immediate airport vicinity, but the proposed project would make no constructive use of these protected resources. The proposed project will not constructively use Haleakala National Park, located approximately 15 miles from the airport.

FAA has also determined that no actual or physical use under Section 4(f) would occur of identified archaeological and historic sites, since the proposed project will not substantially affect the characteristics of resources protected by Section 106. FAA has entered into a Programmatic Agreement (PA) with the SHPO and ACHP. The PA documents the measures necessary to minimize the proposed project's impacts on historic resources through avoidance and potential reuse and effects on archaeological resources through preservation, avoidance or, if appropriate, data recovery.

Note that Building 101, a former Navy ammunition magazine, may be affected during Phase 3 (2009-2016); however, plans for the ground transportation facilities that may affect the architectural features of this resource are not now foreseeable. FAA will re-assess use of that resource before any action adversely affecting Building 101 occurs. If such impacts would occur, FAA will prepare a Section 4(f) Statement to address those effects and develop mitigation in consultation with the SHPO and ACHP.

Before constructing the pipeline from Kahului Harbor to the Airport Bulk Fuel Storage Facility (Phase 3), additional environmental analysis will be completed. The environmental analysis will include assessing prudent and feasible alternatives to avoid or minimize the pipeline's effects on the Kanaha Pond Wildlife Sanctuary.

G. The proposed action does not involve the displacement and relocation of people [42 U.S.C. 4601 *et. seq.*]. There will be no relocation or displacement of the population or housing due to the proposed project.

H. Any actions that involve new construction directly or indirectly affecting wetlands [Executive Order 11990]. There are four wetland locations within the airport area. These wetlands are depicted in Figure 3-22 of the FEIS. The largest (Wetland 1) is located north and south of Alahao Street and immediately east of the Kanaha State Park entry road. Wetlands 2 and 3 are located on the north side of Alahao Street and east of Wetland 1 location. The fourth wetlands located at Kanaha Pond Wildlife Sanctuary is immediately west of the airport and is separated from the airport by two drainage structures; Kalialinui Gulch and the A&B Hawaii Inc. ditch. The Kanaha Pond Wildlife Sanctuary is located entirely within airport property. Section 3.12 of the FEIS indicates that the proposed project will not affect on any of these wetlands, including the Kanaha Pond Wildlife Sanctuary.

I. Any actions that involve a significant encroachment on a floodplain [Executive Order 11988]. Per Executive Order 11988, and FAA Order 5050.4A, paragraph 47.e.12, it is FAA's policy to avoid, when practicable, actions that will occur in the 100-year floodplain. Where avoidance is not practicable, FAA will ensure that any encroachment minimizes potential harm to or within the floodplain. A significant encroachment involves: (1) a considerable probability of loss of human life; (2) likely future damage associated with the encroachment that would be substantial in cost or extent, including interruption of service on or loss of a vital transportation facility; or (3) a notable adverse effect on natural and beneficial floodplain values.

The proposed project involves encroachment, but not significant encroachment. Several areas on the airport and along the beach are located within the 100-year flood zone for intensive rainfall and tsunami as shown on Figure 3-23-A of the FEIS. FAA finds that there are no practicable alternatives that avoid this zone and allow the project components to meet their aeronautical or transportation functions. Section 3.13.3 of the FEIS (pg. 3-118) states that proposed drainage system improvements are planned to reduce the potential for airport flooding. Also, all new facilities will be designed and constructed to meet Federal and State flood zone and coastal high hazard rules and regulations to minimize potential damage from flooding or tsunamis. As a result of these proposed mitigation measures, FAA has determined that the proposed project conforms to all applicable state and/or floodplain protection standards. The proposed project is not a significant encroachment on a 100-year floodplain. Therefore, no further findings on floodplain encroachment is required.

J. Any actions within or affecting land or water uses in an area covered by an approved state coastal zone management program. Section 3.14.1 of the FEIS states that the majority of Kahului Airport is within the State of Hawaii's Coastal Zone Management Plan (CZMP) and within Maui County's Special Management Area. HDOT has certified that the proposed project is consistent with the state CZMP, per paragraph 47.e.13.b of FAA Order 5050.4A. By letter dated July 2, 1997, (FEIS, pg. 10-3) the Hawaii Department of Business, Economic Development & Tourism (DBEDT), the state office overseeing the CZMP, has concurred with HDOT's certification that Phases 1 and Phase 2 of the proposed project is consistent with the Hawaii Coastal Zone Management (CZM) Program. Since the Phase 3 projects are beyond the year 2009 time frame for implementation, the DBEDT has deferred the CZM consistency determination on Phase 3 components until they are needed and additional environmental analysis and documentation for them are completed.

K. FAA has given this proposal the independent and objective evaluation required by the Council on Environmental Quality [40 CFR 1506.5]. As described in the FEIS, the proposed project and the various alternatives were studied extensively to determine the potential assessed impacts and appropriate mitigation measures. FAA provided input, advice, and expertise throughout the planning and technical analysis, along with an administrative and legal review of the project. FAA has on file a disclosure statement from the environmental consultant that satisfies the requirement of CEQ 1506.3(c)

[40 CFR 1506.3(c)]. From its inception, the record supports that FAA has taken a strong leadership role in the environmental evaluation of this project, and that it has maintained its objectivity.

L. The FAA has determined that Section 176(c)(1)(a) and (b) of the Federal Clean Air Act (CAA) as amended in 1990 and its implementing regulations at 40 CFR 93.153(k) concerning determining conformity with a state or federal implementation plan do not apply to the proposed project. As stated in Section 3.7, page 3-71 of the FEIS, the Federal conformity rules apply only to non-attainment and maintenance areas and the entire State of Hawaii is considered to be an attainment area for all National Ambient Air Quality Standards. 40 CFR Part 93.153(k) specifies that: "The provisions of this subpart shall apply in all non-attainment and maintenance areas." Section 93.101, defines a maintenance area as, "...any geographic region of the United States previously designated non-attainment pursuant to the CAA

Amendments of 1990 and subsequently redesigned to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA, as amended."

Since the State of Hawaii has been designated an attainment area, Federal conformity rules do not apply to this project. Therefore, FAA is not required to make a Conformity Determination pursuant to Section 176(c) of the CAA.

M. The FAA has determined that the airport development is reasonably necessary for use in air commerce or in the interests of national defense pursuant to 49 U.S.C. 44502(b).

X. REMAINING ISSUES TO BE RESOLVED

Only the following issues remained to be resolved.

A. Permit Requirements: The FEIS will be used in connection with various Federal, State and Maui County permit applications. Tables 2-6 and 2-7 of the FEIS lists those major permits required for the Kahului Airport improvements.

B. Environmental monitoring required prior to, during, and after construction: The mitigation measures to support the proposed action are provided in Appendices "B" and "C" of this ROD. HDOT will ensure that the applicable mitigation measures are included in the projects' construction contract documents for the proposed improvements and that these measures are followed. HDOT will ensure that all non-construction contract-related mitigation measures are implemented as well.

XI. ENVIRONMENTAL IMPACT MITIGATION COMMITMENTS

In accordance with 40 CFR 1505.3, the FAA will take appropriate steps, through Federal funding grant assurances and conditions, airport layout plan approvals, and contract plans and specifications, to ensure that the mitigation actions are implemented during project development, and will monitor the implementation of these mitigation actions as necessary to assure that representations made in the FEIS with respect to mitigation are carried out. The approvals contained in this Record of Decision are specifically conditioned upon full implementation of these mitigation measures. These mitigation actions will be made the subject of special conditions included in future Federal airport grants to HDOT.

Appendix "B" to this ROD include summaries of the mitigation actions discussed more fully in the FEIS Section 3, for each environmental impact category. Based upon these discussions, the FAA finds that all practical means to avoid or minimize environmental harm has been adopted, through appropriate mitigation planning.

Subsequent to the publication of the "Notice of Availability of the FEIS," published in the *Federal Register* on October 31, 1997, Vol. 62, No. 211, pg. 58968, the National Park Service (NPS), a unit of the U.S. Department of the Interior (DOI), expressed continued concern about the increased potential for introducing alien of flora and fauna onto the island of Maui through Kahului Airport. This concern within DOI led to lengthy negotiations among FAA, DOI, CEQ, and other Federal agencies, and the State of Hawaii. Those negotiations resulted in a mutually-agreeable Alien Species Action Plan (ASAP), dated August 24, 1998, which is included in this ROD as Appendix "C".

This section of the ROD restates that FAA, HDOT, and other appropriate Federal and State agencies agreed to implement the measures in the ASAP. In conjunction with the measures specified in the USFWS Biological Opinion (see appropriate section of Appendix "B" and FEIS,

pages 3-107 through 3-110), the ASAP will reduce the threat of introducing alien species to Maui via flights arriving at Kahului Airport and providing response to those introductions that do occur. These measures will protect all of Maui's Federally-listed species as well as those not protected by the Endangered Species Act.

The FAA is committed to insuring that the mitigation measures contained in Appendices "B" and "C" of this ROD are implemented per Council on Environmental Quality regulations, Section 1505.3. Appendix "B" and "C" are included as part of this Record of Decision and are part of the FAA's unconditional approval of the proposed project as stated on page 32, item "B" of this ROD. Appendix "B" and "C" are included to clarify mitigation measures required as a condition of project approval in this ROD. Appendix "B" and "C" list the environmental resources and the mitigation measures this ROD requires for reducing project-related impacts on affected resources.

XII. DECISIONS AND ORDERS

In the FEIS and this ROD, FAA has identified the proposed project as the "preferred alternative." FAA must now select one of the following choices:

- Approve agency actions necessary to implement the proposed project, or
- Disapprove agency actions to implement the proposed project.

Approval would signify that applicable Federal requirements relating to airport development and planning have been met, and would permit the State of Hawaii to implement the proposed eligible development with Federal funds or a Passenger Facility Charge (PFC). Without FAA approval, HDOT would not be able to proceed with Federally-supported development in a timely manner.

Decision: I have carefully considered the FAA's goals and objectives in relation to the various aeronautical aspects of the proposed improvements at Kahului Airport as discussed in the FEIS. The review included: the purpose and need that this project would serve; the alternative means of achieving the purpose and need; the environmental impacts of the considered alternatives; the mitigation necessary to preserve and enhance the human, cultural, and natural environment; and the costs and benefits in terms of effective and fiscal responsible expenditure of Federal funds that would result from achieving the purpose and need.

Under the authority delegated to me by the Administrator of the Federal Aviation Administration, I find that the project is reasonably supported. My approval of the ALP is based on determinations through aeronautical study process regarding obstructions to navigable airspace, and that the airport development proposal is acceptable from an airspace perspective. I, therefore, direct that action be taken to carry out the agency actions discussed more fully in the Purpose and Need section of this Record including:

A. Environmental approval of the project pursuant to 42 U.S.C. 4321 *et. seq.* and 40 CFR 1500 *et. seq.*

B. Unconditional approval pursuant to 49 U.S.C. 47107(a)(16) and 40103(b) of the Airport Layout Plan submitted by the State of Hawaii for Kahului Airport depicting the proposed developments for Phase 1 and Phase 2 components. ALP approval is based on aeronautical review and a determination that the proposed project meets airspace safety, efficiency, and utility requirements.

C. Phase 3 components will require additional environmental analyses before HDOT may build those facilities. These components remain conditionally approved until FAA and HDOT complete these analyses.

D. Approval to proceed with the processing for eligible funding for those airport development projects described as the Proposed Project contained within the FEIS, and this ROD, where such funding is requested by HDOT under the 49 U.S.C, Part B (formerly the Airport and Airway Improvement Act of 1982).

E. The installation, relocation and operation of air navigation facilities depicted on the Kahului Airport Layout Plan approved herein and, where appropriate, operation of navigational aids associated with the proposed runway extension as described in the FEIS.

F. Implementation of the mitigation measures listed in Appendix "B" of this ROD.

G. Implementation of the measures listed in the Alien Species Action Plan dated August 24, 1998 to minimize the introduction of alien species via aircraft arrivals at Kahului Airport to protect Maui's native biotic communities, included in Appendix "C" of this ROD.

H. Continued close coordination with the State of Hawaii and appropriate FAA program offices, as required, for safety during construction (FAR Part 139)(49 U.S.C. 44706).

I. Approval of the appropriate amendments to the Kahului Airport Certification Manual, pursuant to 14 CFR Part 139; and to the Airport Security Plan pursuant to 14 CFR Part 107 (49 USC 44706).

J. Appropriate amendments to air carrier operations specifications pursuant to 49 U.S.C. 44705.

/original signed by/

8/26/98

William C. Withycombe, Regional Administrator, Date
Western-Pacific Region, Federal Aviation Administration

These decisions, including any subsequent actions approving a grant of Federal funds to the State of Hawaii, are taken pursuant to 49 U.S.C. 40101 et. seq. and 49 U.S.C. 47101. et. seq., and constitute orders of the Administrator which are subject to review by the Courts of Appeals of the United States in accordance with the provisions of 49 U.S.C. 46110.

APPENDIX A RESPONSES TO COMMENTS ON THE FEIS

This appendix presents FAA's responses to comments received concerning the FEIS. The comments are summarized and addressed in chronological order.

Goodman/King, letter dated November 28, 1997.

Comment 1: The FEIS fails to consider the airport's long range development plans. As a result, the FEIS does not explore impacts associated with the internationalization of the airport, increased flights, and tourism, which the project is designed to accommodate. Failure to properly define the project also has resulted in a deficient analysis of alternatives and improper conclusions regarding the significance of the project's impacts.

Response: Section 2.1 of the FEIS correctly defines the proposed project, as well as its purpose and need. The proposed project is a result of the 1993 Master Plan that developed a 20-year long range plan for the airport. The proposed project was not identified in the 1993 Master Plan to "internationalize" Kahului Airport because international flights currently arrive at the airport. However, as directed by the 1991 court-ordered stipulation, impacts of international flights were addressed in the FEIS, Section 8.2.

Comment 2: The FEIS does not adequately address the significant impacts on the resources of Haleakala National Park that inevitably will result from the project. The most significant of these impacts are the inevitable increases in alien species arriving on Maui, which already threaten to wipe out the fragile native ecosystem and species of Haleakala, as well as the entire island of Maui. Also, nowhere does the document deal with the critical issue of whether the project will impair the Park's resources.

Response: The impacts on native, including but not limited to Federally-listed threatened and endangered species, due to the introduction of non-indigenous alien species, were specifically addressed in the Biological Assessment which resulted in a "No-Jeopardy" Biological Opinion, dated July 23, 1997, from the U.S. Fish and Wildlife Service (USFWS). The Biological Assessment and Biological Opinion are discussed in Section 3.11 and Appendix "T" of the FEIS. Impacts on parkland, including Haleakala National Park, were addressed in accordance with Department of Transportation Section 4(f) in Section 3.9 of the FEIS. In addition, a special inter-agency task force comprised of Federal and State agencies refined and enhanced the mitigation measures in the USFWS' Biological Opinion, to develop an Alien Species Action Plan (ASAP). The ASAP is Appendix "C" of the ROD.

Comment 3: Much of the mitigation proposed, particularly with respect to alien species impacts, is ill-defined and inadequate, and there is no assurance that the mitigation will in fact be implemented and enforced.

Response: The mitigation measures were prepared as part of the Biological Assessment in consultation with the USFWS and incorporated into the USFWS' Biological Opinion dated July 23, 1997. USFWS is statutorily responsible for protecting Federally-listed endangered and threatened species. USFWS expertise regarding threats to these species is well-recognized. The commenter has provided no evidence to suggest that the measures in the USFWS Opinion are inadequate. Although the Opinion's requirements were developed as part of the Biological Opinion, they are not specific to those species and would, in fact, protect all of Maui's biotic populations. The assurance and commitment to implement these mitigation measures are discussed in the Section 8.2.5.23 and the Biological Assessment contained in Appendix "T" of the FEIS. In addition, an Alien Species Action Plan was developed to amplify the Biological Opinion's requirements as an additional layer to protect Maui's unique, biotic resources. The ASAP is included as part of this ROD.

Comment 4: The document reaches many unfound and unsubstantiated conclusion regarding the significance of the project's impacts. Where a conclusion depends on the implementation of mitigation, there often is no evidence or assurance that the mitigation will in fact be implemented.

Response: As a requirement of the Council on Environmental Quality (CEQ), Section 1505.3, FAA will assure that the decisions of their ROD and the mitigation measures defined in Appendices "B" and "C" are carried out.

Comment 5: FAA has steadfastly ignored the comments of the National Park Service and refused to accord it cooperating agency status.

Response: FAA determined that the NPS did not meet the criteria for Cooperating Agency as defined by the Council on Environmental Quality (CEQ) guidelines, since, in FAA's opinion the proposed action would not adversely affect resources under NPS purview. Nevertheless, due to its expertise regarding Maui's biotic communities and as an interested party, NPS was given adequate opportunity to comment on the draft EIS and directly participated on the Biological Assessment Technical Panel that reviewed the Biological Assessment prepared to meet regulations implementing the Endangered Species Act.

Board of Water Supply, County of Maui, letter dated December 18, 1997.

Comment 1: The introduction of direct air links from many new locations will increase the risk of alien species introduction and the integrity of Maui's watershed.

Response: The impacts on the watersheds, including alien species, are addressed in section 3.11.3 and 5.1.6 of the FEIS. Also, the Biological Assessment prepared as part of the FEIS specifically addressed the impacts of additional alien species introductions to Maui. Based upon this Biological Assessment, the U.S. Fish and Wildlife Service prepared a "No-Jeopardy" opinion. In addition the Alien Species Action Plan, dated August 24, 1998, and included in the ROD, will supplement the Opinion's measures to reduce the potential for those introductions via the airport and address any introductions that occur.

Comment 2: To further conserve water resources, FAA is reminded about various water conservation requirement and suggestions. This comment included various suggestions as equipment requirements, climate-adaptive plants for landscaping, over-watering, and other water saving opportunities.

Response: Comment noted. The water quality mitigation measures are included in Section 3.8.4 of the FEIS. The requirements and suggestion to conserve water resources will be forwarded to the State of Hawaii, Department of Transportation, Airports Division (HDOT), for inclusion in plans and specifications for the project's various construction elements.

APPENDIX "B"
AFFECTED RESOURCES AND FEIS MITIGATION MEASURES

Appendix "B" lists the environmental resource and the mitigation measures included in the FEIS. This Appendix is made part of this ROD to reduce project-related impacts on all resources. Mitigation measures detailed in Appendix "C" further address alien species introductions via Kahului Airport.

MITIGATION MEASURES FROM KAHULUI AIRPORT EIS

IMPACT CATEGORY	MITIGATION MEASURES
<p>NOISE</p> <p style="padding-left: 40px;">Aircraft</p> <p style="padding-left: 40px;">Ground Vehicle</p> <p style="padding-left: 40px;">Construction</p>	<p>The State should pursue the abatement and mitigation measures set forth in the Kahului Airport Noise Compatibility Program to reduce the existing incompatible land uses within the Airport's environs.</p> <p>Construction of a noise barrier to reduce the noise impact to below 67 dBA Leq. The noise barrier is recommended to be located along the property lines, within the roadway Right-of-Way, of the homes along Dairy Road/Kuihelani Highway between Puunene Avenue and Hukilike Street (TMKs 3-8-70:2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, and 20). The barrier will be built only if there is a consensus among the homeowners and property owners.</p> <p>Voluntary mitigation of construction noise will include the use of properly muffled equipment.</p>
<p>LAND USE</p>	<p>None.</p>
<p>GEOLOGY, PHYSIOGRAPHY, SOILS, AGRICULTURAL POTENTIAL & EARTHQUAKES</p>	<p>HDOT will implement applicable Federal, State and County rules and regulations for grading and construction activities, which include the following:</p> <p style="padding-left: 40px;">State and County erosion and sediment control measures will be employed during construction to minimize storm water runoff. Following construction, berms and landscaping will assist in reducing runoff flows and direct flows to drainage channels. As applicable, the appropriate State and County permits will be obtained and best management practices will be developed prior to construction activities. The applicable Section 401 permits and NPDES-Notice of Intent will be completed and obtained.</p> <p style="padding-left: 40px;">To minimize potential earthquake damage, facilities will be designed and constructed to meet applicable Federal, State</p>

	<p>and County building codes and regulations, including those applicable to seismic activity.</p> <p>The design of the new on-airport Fuel Storage Facilities and the associated piping to the aircraft apron shall be designed in compliance with all applicable Federal and State codes, rules and regulations to prevent the contamination of soil, runoff and groundwater applicable at the time of design/construction. These regulations include the State's Waste Water Management Regulations, Uniform Building Code, and National Fire Protection Association, 40 CFR 112, and US DOT Regulations, Title 49, Part 195 - Transportation of Hazardous Liquids by Pipeline. The mitigation measures which will be designed for the new Fuel Storage facility and piping will include: (i) containment berms or walls; (ii) oil/water separation systems; (iii) corrosion resistant coatings; (iv) filters; (v) applicable Spill Protection Containment and Countermeasures; and (vi) leak detection and monitoring. These facilities will be designed, constructed and operated by HFFC.</p>
<p>SOCIO-ECONOMIC</p>	<p>None.</p>
<p>SECONDARY (INDUCED) SOCIO-ECONOMIC</p>	<p>Work with the State Department of Agriculture and their working group to plan, design and implement cargo facility improvements that would benefit the shipment of agricultural products, such as covered storage of agricultural produce awaiting shipment, as well as improvements to facilitate the State Department of Agriculture's alien species interception/inspection program.</p>
<p>AIR QUALITY, CLIMATE & METEOROLOGY</p>	<p>The Airport should encourage the use of capacity enhancement techniques to lessen the aircraft delay on the airfield.</p> <p>Short-term construction activities must comply with provisions of Chapter 11-60.1 of the State of Hawaii Administrative Rules, Section 11-60.1-33, on Fugitive Dust. Adequate fugitive dust control can be accomplished by the following measures, as necessary:</p> <ul style="list-style-type: none"> <p> focusing on minimizing the amount of dust generating materials and activities, centralizing material transfer points and onsite vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;</p> <p> providing an adequate water source at the site, prior to startup of construction activities;</p> <p> control of dust from shoulders, project entrances, and access roads;</p> <p> providing adequate dust control measures during weekends,</p>

	<p>after hours, and prior to daily startup of construction activities;</p> <p>Use of a frequent watering program to prevent bare-dirt surfaces from becoming significant dust generators;</p> <p>Limiting the area that can be disturbed at any given time;</p> <p>Application of chemical soil stabilizers or mulching;</p> <p>Construction of wind screens;</p> <p>Requirements that all open-bodied trucks be covered when transporting dirt or dust producing materials;</p> <p>Road cleaning or tire washing, as appropriate; and/or</p> <p>The paving of parking areas and the establishment of landscaping early in the construction process to limit areas of possible dust production.</p>
<p>WATER QUALITY</p>	<p>During construction of the new runway, taxiway and other areas to be graded, best management practices will be utilized consistent with State Department of Health rules and regulations and the State's non-point source pollution management program, currently being prepared by the Office of State Planning. Following construction, new runways, taxiways and ramp areas will be provided with runoff water impoundment areas and new facilities will be connected to the drainage catchment system. As necessary, oil/water separators will be installed to minimize the runoff of petroleum products. Equipment wash areas will be equipped with waste wash water collection and appropriate facilities and the new fueling facilities will be bermed and underlain by impermeable membranes to prevent soil and groundwater contamination. To further minimize the effects resulting from grading and construction activities, applicable Federal, State and County rules and regulations will be implemented. The following is brief discussion of these measures:</p> <p>State and County erosion and sediment control measures, including the use of sediment retention basins, will be employed during construction to minimize storm water runoff. Following construction, berms and landscaping will assist in reducing runoff flows and direct flows to drainage channels. As applicable, the appropriate State and County permits will be obtained and Best Management Practices will be developed prior to construction activities.</p> <p>New facilities will be designed and constructed to meet Federal</p>

	<p>and State flood zone and coastal high hazard rules and regulations to minimize potential damage from flooding or tsunamis.</p> <p>HDOT-AIR will be cooperating with DLNR during implementation of the Flood Control Project as it applies to the Airport Access Road.</p>
DOT SECTION 4(F)	See mitigation measures for alien species.
HISTORIC, ARCHITECTURAL, ARCHAEOLOGY, AND CULTURAL RESOURCES	<p>Should construction activities uncover or otherwise encounter any artifacts indicating an important historical, archaeological or cultural site, the project archaeologist will be called to investigate. If the archaeologist determines that the site in question is significant appropriate steps will be taken to minimize the disturbance of the site or loss of data. If possible, burials will be avoided and/or, if necessary, a burial treatment plan, approved by the Maui County Burial Council, will be instituted. The major mitigation measures included in the Programmatic Agreement are:</p> <p>PHASE 1</p> <ol style="list-style-type: none"> 1. Site 1798, will be preserved as a Preservation Area in perpetuity. FAA shall ensure that HDOT prepares an acceptable Burial Preservation Plan which will cover both burial and non-burial areas, in consultation with the Maui/Lanai Islands Burial Council and reviewed and approved by SHPO, shall be implemented in its entirety. The Site will be marked to designate it as a Preservation Site with an adequate buffer zone. A low berm will be constructed to the south (between Runway 5-23 and Site 1798 to divert surface runoff away from the Site. Additionally, the Site will be detailed on the Airport Layout Plan to denote the Preservation Site and buffer zone.
HISTORIC, ARCHITECTURAL, ARCHAEOLOGY, AND CULTURAL RESOURCES (continued)	<p>PHASE 2</p> <ol style="list-style-type: none"> 1. Building 411 will be preserved in place. FAA shall ensure that HDOT develops an acceptable preservation plan to ensure protection. FAA shall ensure that HDOT develop an acceptable preservation plan to ensure protection. The SHPO shall review and approve this plan. If the preservation of Building 411 is incompatible with proposed construction of the Emergency Roadway to connect Alahao Street with Old Stable Road, the FAA shall consult with the SHPO and the ACHP to determine if avoidance with the Secretary of the Interior's Historic American Building Survey Standards is appropriate.

	<p>2. Site 1799.</p> <p>This site will undergo further archaeological survey in the form of subsurface testing in order to determine its function. An acceptable report documenting the results of additional testing shall be submitted to the SHPO for review and approval by HDOT through the FAA.</p> <p>HDOT will preserve Site 1799 in place, with an appropriate buffer zone. FAA shall ensure that HDOT develop an acceptable preservation plan to ensure protection. HDOT shall submit this plan through the FAA to the SHPO for review and approval.</p> <p>Should the proposed construction of the Emergency Roadway to connect Alahao Street with Old Stable Road affect Site 1799, FAA shall consult with the SHPO and the ACHP to determine if avoidance of the site is possible or whether archaeological data recovery is appropriate.</p> <p>3. FAA shall notify the SHPO and ACHP if there is a change of land use status for the land to be acquired for the future parallel runway.</p> <p>PHASE 3</p> <p>1. NASKA, Building 101</p> <p>This building will be preserved in place and could possibly be reused as part of the expansion to the Ground Transportation Facilities. FAA shall ensure that HDOT develop an acceptable preservation plan to ensure protection. HDOT shall submit this plan through the FAA to the SHPO for review and approval.</p> <p>Should the proposed expansion of the Ground Transportation Facilities adversely affect Building 101, FAA shall consult with the SHPO and the ACHP to determine if avoidance of the adverse effect is possible or whether architectural data recovery is accordance with the Secretary of the Interior's Historic American Building Survey Standards is appropriate.</p>
HISTORIC,	2. Site 1777

**ARCHITECTURAL
, ARCHAEOLOGY,
AND CULTURAL
RESOURCES**
(Continued)

HDOT will preserve Site 1777 in place, with an appropriate buffer zone. FAA shall ensure that HDOT develop an acceptable preservation plan to ensure protection. HDOT shall submit this plan through the FAA to the SHPO for review and approval.

Should proposed Runway Safety Area affect Site 1777, FAA shall consult with the SHPO and the ACHP to determine if avoidance of the site is possible or whether archaeological data recovery is appropriate.

3. Site 2849

If it will not be adversely affected, than FAA shall ensure that HDOT develop an acceptable preservation plan to ensure protection. HDOT shall submit this plan through the FAA to the SHPO for review and approval.

If the site will be adversely affected, then archaeological data recovery work shall occur at Site 2849. FAA shall ensure that HDOT develop an acceptable data recovery plan. HDOT shall submit this plan through the FAA to the SHPO for review and approval. The SHPO must verify in writing to FAA the successful execution of this plan before and ground disturbance may begin.

Phase 3 infrastructure improvements and the proposed parallel runway will impact an area of cane field to the east and southeast of the existing airport. Also, four plantation camps were located in these areas. Prior to any ground disturbance (including grubbing and grading), the following mitigation measures will be taken:

HDOT shall ensure that a subsurface archaeological inventory survey shall be undertaken by a qualified archaeologist to determine if historic properties remaining from the four camps are present and would meet the criteria for inclusion in the National Register of Historic Places. An acceptable report of this survey, meeting SHPO's minimal standards, shall be submitted to the SHPO for review and approval by the HDOT through the FAA.

	<p>If eligible historic sites are found, FAA shall ensure that HDOT develop an acceptable mitigation plan. HDOT shall submit this plan through the FAA to the SHPO for review and approval. The SHPO must verify in writing to FAA the successful execution of this plan before any ground disturbance may begin.</p>
<p>HISTORIC, ARCHITECTURAL, ARCHAEOLOGY, AND CULTURAL RESOURCES (Continued)</p>	<p>Additional measures stated in the Programmatic Agreement:</p> <p>Through preconstruction meetings, HDOT will ensure that project personnel (State inspectors and contractor work forces) are sensitive to the cultural and research significance of historic properties and burial site, as defined in Hawaii Revised Statutes Chapter 6E-2.</p> <p>To ensure adequate archaeological monitoring of construction work, the HDOT will incorporate: Archaeological and Paleontological Findings, taken from the State standardized special provisions, into the construction contract. A monitoring report will be prepared and submitted to the SHPO for review and approval.</p> <p>In the event human remains and burial goods are discovered during archaeological or construction work, treatment and disposition of such human remains and burial goods, including those determined to be of native Hawaiian ethnicity, will be in accordance with Hawaii Revised Statutes Chapter 6E-43.</p> <p>All archaeological work performed under this PA will be directed by a professional archaeologist who meets the minimum qualifications set forth on the Department of Interior's Professional Qualifications Guide.</p> <p>All final archaeological reports resulting from actions pursuant to this PA will be provided to the signatories to this PA. All such reports will be responsive to contemporary professional standards identified in the Department of Interior's Format Standards for Final Reports of Data Recovery Programs.</p>

FLORA	New buildings will be landscaped utilizing native and introduced species as well as drought tolerant species to reduce irrigation demands.
FAUNA	Landscaping of new and relocated facilities, the proposed runway extension will be graded to minimize the ponding potential in this area, and the new lights of the Proposed Project should follow the DLNR guidelines for the Newell's Shearwater, entitled The Newell's Shearwater Light Attraction Problem, A Guide for Architects, Planners, and Resort Managers.
ALIEN SPECIES	<p>Support of the Federal and State agencies that have the responsibility for the inspection for alien species at the Airport. In addition,</p> <p>PRE-ENTRY</p> <p><i>Pre-entry Traveler Education about Alien Species.</i> Support the CGAPS in their educational role of informing the traveling public of the dangers of alien species, particularly in promoting an Alien Species Video acceptable for in-flight viewing.</p> <p><i>Notification of New Routes to Maui.</i> Keep CGAPS informed of any new proposed domestic or international routes to Maui. CGAPS members include the Hawaii Department of Agriculture, the U.S. Department of Agriculture, and the Fish and Wildlife Service.</p> <p>X <i>Treatment of Cargo Holds.</i> Develop a voluntary program for all airlines serving Kahului Airport using a non-chemical best practical pesticide/pest prevention treatment program for aircraft cargo spaces.</p> <p>PORT-OF-ENTRY</p> <p><i>Traveler Education Regarding Alien Species Risks, Quarantine Restrictions, and Penalties.</i> Support efforts by CGAPS and others to adequately and effectively inform arriving passengers of the dangers posed by alien species, the nature of quarantine restrictions, and the penalties for violations. Current CGAPS plans are for this education program to be self-supporting, therefore, funding commitment is not required.</p> <p>X <i>Training of Airline and Airport Personnel in Alien Species Recognition and Response.</i> Plan and implement a voluntary education program that will train airport employees, baggage handlers, airline cabin personnel, and others. This program will educate these personnel to recognize and report smuggled</p>

	<p>animals and plants/fruit, stowaway snakes and insects, and new alien species on airport grounds. HDOT-AIR will coordinate the planning of this program with HDOA, USDA and CGAPS.</p> <p>X <i>Arrival Inspection Facilities.</i> Support HDOA domestic arrival inspection by installing a data link between arrival gates and baggage claim, installing one X-ray machine to test the feasibility of inspecting arriving baggage, installing a paging system at baggage claim, and supplying office space, kennels and inter-terminal golf carts as necessary. HDOT-AIR will furnish the infrastructure and support to adequately meet USDA inspection needs for international arrivals.</p> <p>X <i>.Additional Agriculture Arrival Inspectors.</i> Fund one additional inspection dog and three additional agriculture inspector positions, one of which will act as a handler for the dog, bringing the total to eleven inspectors and two dogs. In light of the proposed measures in the project, and with these additional inspectors, HDOA has determined that it will be able to adequately inspect incoming domestic air traffic associated with the project.</p>
<p>A.LIEN SPECIES (continued)</p>	<p>X <i>New Air Cargo Building.</i> Design and construct a new air cargo building to meet existing and forecast demands, to include an industrial air curtain barrier to prevent escape of any insects during inspection of air cargo containers; offices and facilities for U.S. Customs, USDA and HDOA; lab space, freezer and sterilization/incineration facilities; space for X-ray equipment; and computer equipment and facilities for the HDOA alien species database system.</p> <p>X <i>Quality Control Program.</i> Design and fund, on an ongoing basis, a comprehensive program to monitor the efficacy of the alien species interdiction system at Kahului Airport. The program shall be designed in consultation with HDOA, USDA, and CGAPS, and shall be developed and operated by a consultant or agent under the control and management of HDOT-AIR. The program will provide yearly reports to all concerned agencies. These reports shall include summaries of all alien species interceptions from all airport-based operations, their origin and mode of arrival, to the extent possible, and estimates of the efficiency of the inspection system for various taxonomic groups of concern. HDOA will take the lead in developing these estimates which should be based in part on tests of the system (e.g., attempted smuggling, random sampling of passenger effects and cargo,</p>

	<p>complete inspections of aircraft). The yearly reports shall also include recommendations to improve efficiency of the inspection system and the quality control program itself. The program will be integrated with the existing USDA Quality Control system for international arrivals.</p> <p>EARLY DETECTION/RESPONSE AND OTHER MEASURES</p> <p>X <i>Security Committee.</i> Encourage the Kahului Airport Security Committee to include alien species control as an element under its purview</p> <p><i>Brown Tree Snake.</i> Review the Brown Tree Snake Control Plan (Aquatic Nuisance Species Task Force 1996) to determine its applicability to all airports within the State.</p> <p>X <i>Alien Arthropod Detection and Response.</i> On an ongoing basis, contract with a consultant in entomological pest identification to assist Animal Damage Control in conducting semi-annual monitoring of the airport environs to detect early establishment of new alien insects, particularly social hymenoptera (ants and wasps) and biting diptera (midges, flies and mosquitoes). Results will be communicated to the HDOA and the Quality Control Program HDOT-AIR will assist HDOA and USDA with manpower, resources and funds in the eradication of any detected population within the Kahului Airport boundary.</p>
MARINE ENVIRONMENT	See Water Quality and Geology, Physiography, soils, etc.
WETLANDS	The alignment of the Alahao Street/Old Stable road emergency connection will be designed to miss these wetlands.
HYDROLOGY, FLOODPLAIN MANAGEMENT & DRAINAGE	<p>New facilities will be designed and constructed to meet applicable Federal and State floodzone and coastal high hazard rules and regulations.</p> <p>The Airport area warning system will be extended to the new facilities.</p>
COASTAL ZONE MANAGEMENT	None.
WILD & SCENIC RIVERS	Not Applicable.
COASTAL BARRIERS	None.

FARMLAND	None.
ENERGY	Use of energy efficient lighting fixtures, and the buildings will be appropriately insulated to reduce heat loss and gain and some facilities may utilize motion sensors to control lighting requirements.
LIGHT EMISSIONS	Measures will be undertaken to minimize any spillover effect from the Airport's lighting. For example, new lighting will be properly shielded and directed to prevent intrusion into areas outside the airport areas. The new lighting will be in compliance with applicable lighting codes and standards. It is also recommended that the designers follow the guidelines for the Newell's shearwater as published by DLNR. The publication is entitled <i>The Newell's Shearwater Light Attraction Problem</i> .
SOLID WASTE, HAZARDOUS/TOXIC WASTE AND WASTE WASH WATER	<p>Removal and disposal of hazardous materials will be performed in accordance applicable Federal and State rules. If petroleum contaminated soils are found during construction, HDOT-AIR will remediate the soil on-site, following all applicable rules and regulations. The demolition/relocation of existing structures containing asbestos will be in compliance with Federal, State (HRS Chapter 342-P-1) and OSHA requirements.</p> <p>The removal of USTs will be in compliance with 40 CFR 280, EPA Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, and the American Petroleum Institute Recommended Practice 1604, Removal and Disposal of Used Underground Petroleum Storage Tanks. In addition, the HDOT-AIR will include specifications in the construction document for the removal of USTs. The specifications will be in substantial compliance with the guide specifications presented in the EIS. In summary the major items in the guide specifications, include: Preparation; Demolition, Excavation and Removal of UST systems; Monitoring/Screening for Subsurface Contamination; Residual Sludge and Rinsate; Sampling/Testing/Handling Soil and Ground Water; and Response to Contaminated Soils and Ground Water. In addition, if subsurface contamination originating from releases from these USTs is discovered during removal, the appropriate measures will be taken in compliance with the State of Hawaii Department of Health, UST Technical Guidance Manual for Underground Tank Closure and Release Response, and 40 CFR Part 280.</p> <p>It is expected that to the extent economically and operationally possible, recycling services will be used by the various airport operations for the disposal of solid wastes generated during and after construction of the proposed improvements. Solid wastes generated during operations of airport facilities should be recycled to the extent economically and operationally possible, providing there are qualified</p>

	recyclers to accept the materials.
VISUAL EFFECTS	<p>The proposed airport improvements will be designed to blend with the existing environment and views to the greatest extent possible. Buildings will be designed in keeping with the architectural character of the airport. Horizontal facilities (runways, taxiways, etc.) will be designed and constructed to avoid alteration of existing views to the extent possible. New facilities will be landscaped with trees and plantings to enhance their visual character. Xeriscape (drought-tolerant), salt tolerant and native plants should be considered during design.</p> <p>To minimize visual effects to the line of trees along Kala Road, the remaining trees located mauka of the highway will be preserved. If possible, those trees requiring removal will be transplanted next to the remaining trees. The removal of agricultural lands will be mitigated by the land serving as an open space resource and appropriate landscaping will provide an open space buffer between Hana Highway and the runway.</p>
WATER SUPPLY	Use non-potable water (included in Proposed Project) for landscape irrigation, use of plant species that are salt tolerant and drought-resistant, recycling rental car wash water and replacing deteriorating water lines will assist in reducing airport water consumption.
WASTEWATER COLLECTION, TREATMENT AND DISPOSAL	Wastewater reduction strategies will be implemented, including: (i) the reuse of rental car wash water; (ii) improvements to the storm water drainage system to alleviate flooding of and stormwater intrusion into the sewage system; and (iii) the repair of deteriorated and broken sewer lines to decrease water infiltration into the sewer collection system. In addition, HDOT-AIR should monitor the flows into the Sewage Pump Station. As the peak flow exceeds 80 percent of the design capacity, HDOT-AIR should initiate plans to upgrade the sewage pump station.
TELECOMMUNICATIONS	None.
POLICE AND FIRE SERVICES AND PUBLIC SAFETY	None.
HEALTH CARE FACILITIES	None.
SCHOOLS	None.
RECREATIONAL FACILITIES	None.

<p>SURFACE TRANSPORTATION SYSTEM</p>	<p>HANA HIGHWAY INTERSECTION WITH HANSEN / SPINE ROAD (LOS F AT LEFT-TURN LANE). One way to improve the situation at this intersection is to widen this section of Hana Highway to six lanes with traffic signal controls. The traffic signals will be part of the Proposed Project. However, the widening of Hana Highway will be studied by HDOT-Highways Division, in the future as necessary. The impact on the closure of Haleakala Highway was previously mitigated by the widening of Hana Highway.</p>
<p>SURFACE TRANSPORTATION SYSTEM (continued)</p>	<p>AIRPORT ACCESS ROAD INTERSECTION WITH DAIRY ROAD (EXCESSIVE V/C RATIO). Provision of a second right-turn lane on Dairy Road, in addition to the second northbound left-turn lane, would result in volumes at 84 percent of capacity. This will be part of the Proposed Project.</p> <p>NORTHBOUND LEFT-TURN FROM AIRPORT ACCESS ROAD TO WESTBOUND ON-RAMP TO HANA HIGHWAY (LOS F AT LEFT-TURN LANE). Installation of traffic signal controls on Airport Access Road would provide protected left-turn movement, improving overall intersection conditions to LOS A.</p> <p>AIRPORT ACCESS ROAD INTERCHANGE (LOS F). These conditions could be improved at the entry to these two ramps by relocating the entry to the Hana-to-Airport several hundred feet eastward to provide more separation between the two ramp entrances. This will be studied during the design phase of the Proposed Project and appropriate measures will be adopted.</p> <p>BIKE ROUTE (BICYCLE-VEHICLE CONFLICTS). The crossing shall be designed to maintain safety for both motorists and bicyclists and comply with the applicable rules and regulations at the time of design. The location of the crossing should provide for good visibility for both motorist and bicyclist. Adequate signage for both motorist and bicyclist shall be placed to warn both parties of the bike crossing. The intersection of the bike route and the ramps will be coordinated with the appropriate State and County officials during the design to insure that the current bikeway and highway safety standards are met. In addition, with the proposed Airport Access Roadway, a bicycle route could be designated along the paved shoulder of the westbound Hana-to-Airport off-ramp and the east-bound Airport-to-Lahaina on-ramp, as well as the portion of Airport Access Road north of Hana Highway.</p>

	Short-term impact on roadways during the construction work will be designed and scheduled to allow for no lane closures during the peak traffic hours. If necessary, certain operations may be performed during the evening or night hours. To relieve the impact of the realignment of Hansen Road and the closure of Pulehu Road, it is anticipated that the new Hansen Road will be completed prior to the closure of the existing Hansen and Pulehu Roads.
AVIATION SAFETY	None.

Note: There may be other impacts and mitigation measures for the Parallel Runway and other long range projects. However, prior to the construction of these long-range projects additional environmental analysis will be completed in order to determine what, if any, further environmental documents or mitigation measures are required.

APPENDIX "C"
MEMORANDUM OF UNDERSTANDING AND
ALIEN SPECIES ACTION PLAN

An interagency-team comprised of Federal and State agencies used the FEIS mitigation measures as a basis to develop an [Alien Species Action Plan \(ASAP\)](#) to further reduce alien species introductions to Maui via aircraft arrivals at Kahului Airport. FAA requires implementation of the FEIS mitigation measures, and the ASAP to protect all of Maui's biotic resources, not just those that are Federally-protected. FAA makes this Memorandum of Understanding and ASAP part of this ROD and will include appropriate measures in the assurances of the grant issued for the proposed project.

#end#