ALOHA MAI

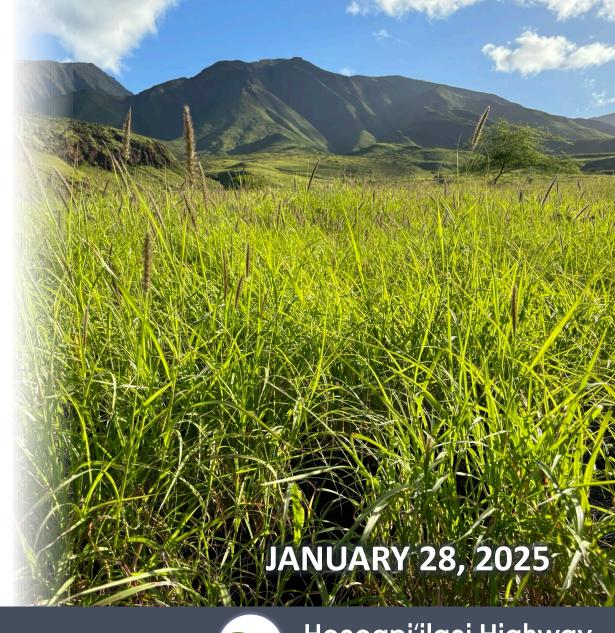
PUBLIC HEARING PRESENTATION: DRAFT ENVIRONMENTAL IMPACT STATEMENT

Honoapi'ilani Highway Improvements West Maui, Ukumehame to Launiupoko





Federal Highway Administration







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Emergency Repairs:

- Over the past 10 years, this stretch of highway has been repaired three times after storms and high waves.
- A fourth project is currently in development to address erosion near Olowalu.

HDOT Vulnerability Assessment Findings:

- 2019 Statewide Coastal Highway Report ranks Honoapi'ilani Highway at Olowalu (#2) and Ukumehame (#12) as most critical out of 300 sites for ocean hazard vulnerability.
- 2021 HDOT Climate Adaptation Action Report Exposure Assessments found 3.2-foot Sea Level Rise Exposure; Vulnerability to hurricane-related storm surge; and Hypothetical tsunami scenario identified in the project area.

Funding Opportunities:

- HDOT secured a \$22 million federal RAISE grant with the help of our Congressional Delegation, Visitor Industry, FHWA, and Maui County
- Sen. Schatz helped to secure a \$23 million earmark in the 2022 OMNIBUS Bill
- Total estimated cost for this project is approximately \$160 million.







Project Purpose and Need Statement

The primary purpose of this Project is to provide a reliable transportation facility in West Maui and improve Honoapi'ilani Highway's resilience by reducing the highway's vulnerability to coastal hazards.

Specifically, the Project is intended to address existing coastal erosion and flooding, as well as future coastal erosion and flooding caused by anticipated sea level rise, as delineated by the SLR-XA along the stretch of highway from Ukumehame to Launiupoko, approximately milepost 11 to milepost 17.





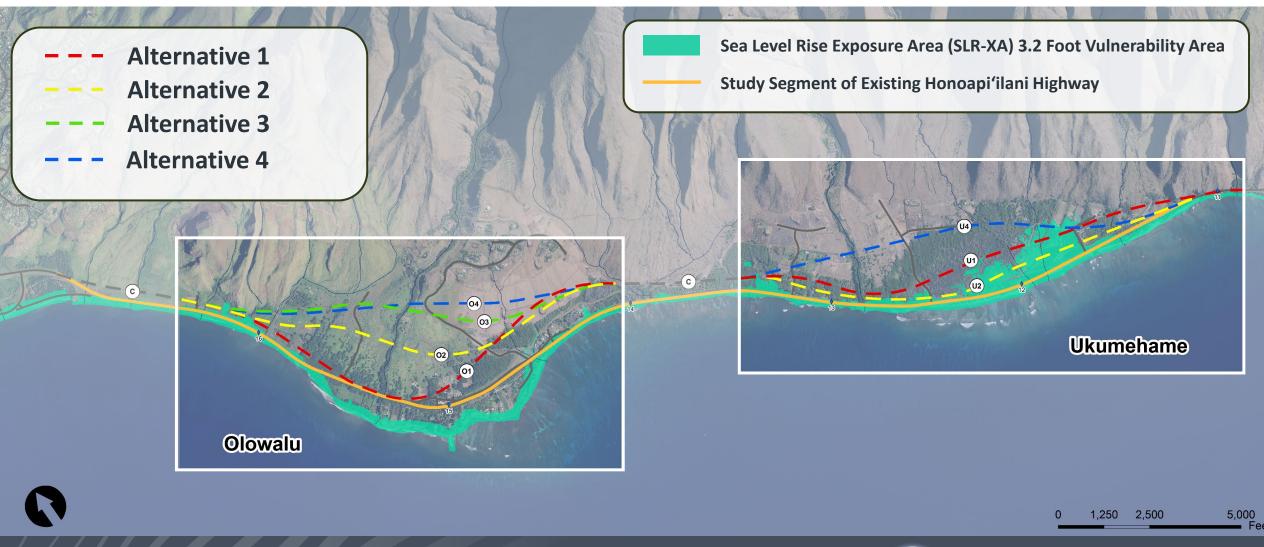
Factors in Determining Preferred Alternative

- Best opportunity to avoid and minimize adverse effects.
- Refinements to the alignment specifically address:
 - Archeological and cultural locations
 - Areas with wetlands/waters
 - Areas with known threatened and endangered wildlife
- Best accommodates environmental commitments and mitigation
- Minimizes private property acquisition
- Best opportunity to meet Purpose and Need while minimizing impacts













Complete Preferred Alternative







Topics Included in this Environmental Impact Statement

Social, Economic, and Built Environment

- Land Use
- Land Acquisition, Displacement, and Relocation
- Agriculture and Farming
- Socioeconomic Conditions
- **Environmental Justice**
- Parklands and Recreational Facilities/ Beach Access
- Infrastructure and Utilities
- **Hazardous Materials**
- Visual and Scenic Character

Cultural and Historic Resources

- Archaeological and Architectural Historic Properties
- Cultural Resources and Practices

Natural Resources

- Geology and Soils
- Water Resources and Wetlands
- Flora and Fauna / Threatened and Endangered Species
- Natural Hazards
- Coastal Zone Management, Hawai'i Special Management Areas
- Climate Change and Sea Level Rise

Transportation

- **Transportation Systems**
- Pedestrian/Bicycle Use
- Air Quality
- Noise

Construction Impacts

Indirect and Cumulative Impacts







Other Environmental Studies Highlights

Historic and **Cultural Resources**

Section 106 / Chapter 6E

- Above ground surveys of archaeological and architectural resources have been completed
- The draft programmatic agreement has been drafted, but is not yet final
- Subsurface research will be completed on the preferred alternative before construction

Parks/Rec and **Historic Sites**

Section 4(f)

- The Draft EIS assessed several properties for Section 4(f). Only the Ukumehame Firing Range, was eligible for Section 4(f)
- The Ukumehame Firing Range is anticipated to have a "de minimis" (minimal) impact from the Preferred Alternative. This will be coordinated with the County of Maui
- A Section 4(f) de minimis evaluation will be included in the Final EIS.

Wetlands and Water Resources

Section 404

- Water features in the study area include approximately 21 acres of delineated wetlands
- Permanent impacts for the Preferred Alternative are not anticipated to exceed 0.1 acre in any delineated jurisdictional wetland.
- Compliance with Clean Water Act is ongoing through coordination with U.S. Army Corp of Engineers. Permitting will be completed during the next phase of the project

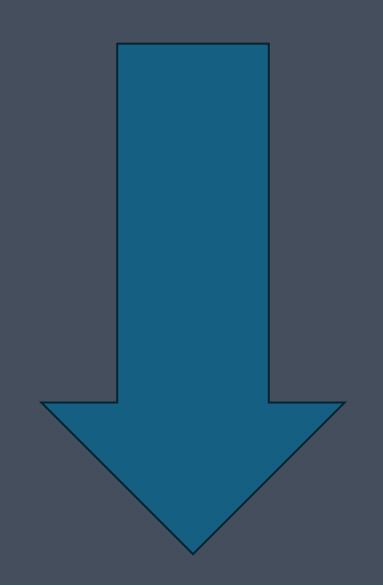
Endangered Species

Section 7 / Chapter 195d

- Two listed species observed:
 - nēnē (Hawaiian Goose)
 - ae'o (Hawaiian Stilt)
- **Endangered species** consultation is ongoing with USFWS. Consultation with NOAA-NMFS has been completed
- Next steps: Determine final species protection measures with USFWS







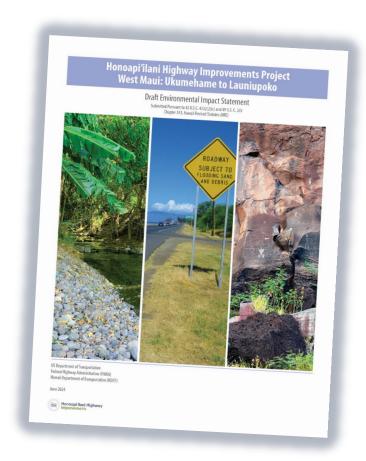
Slides below are backup slides



The Project complies with the National Environmental Policy Act (NEPA) and the Hawaii Environmental Policy Act (HEPA).

NEPA requires agencies to consider effects of their projects on the environment and communities. HEPA similarly requires state/county environmental reviews and effects analysis. Both processes include:

- Public and agency participation
- Identify purpose and need for project
- Develop a range of alternatives meeting project needs
- Determine social, economic, and natural environment effects from alternatives
- FHWA and HDOT's environmentally "preferred alternative" and how it avoids, minimizes, or mitigates environmental effects
- Draft Environmental Impact Statement
- Final Environmental Impact Statement and Record of Decision





Traffic Operations and Reliability

Existing Highway and No Build Condition experiences traffic delays

- High numbers of vehicles, no center median
- Numerous driveways and curb cuts create road "friction" and delays
- Poor "levels of service" and delay for side streets and commercial center
- Highway travel is not reliable or consistent, experiences closures from accidents, natural hazards, coastal breaches

Preferred Alternative provides for better travel

- Center medians minimize lane crossings and headlight glare
- Intersections will have full turn lane protections for improved operations
- Reduced traffic on old highway makes existing uses easier to access
- Improved design minimizes potential closures due to traffic disruptions

Measurable improvements to overall traffic flow and Level of **Service**

- No Build: Volume to Capacity Ratio = 0.91, Level of Service = E
- Build Alternatives: Volume to Capacity Ratio = 0.76, Level of Service = C





Traffic Operations and Safety

	PREDICTED AVERAGE CRASH FREQUENCY (CRASHES/YEAR)					
	NPREDICTED (Total)	NPREDICTED (FI)	NPREDICTED (PDO)			
Existing Conditions	56.4	19.1	37.2			
Future Year 2045 No Build Alternative	66.7	22.7	44.0			
Build Alternative 1	0.7	0.3	0.5			
Build Alternative 2, 3, 4	1.8	0.7	1.1			

FI: Fatalities/Injuries; PDO: Property Damage Only

- The most common crash type observed were rear-end collisions.
 - The Preferred Alternative includes turning-movement lanes at intersections in part to reduce this type of collision.
- Crashes from vehicles crossing the centerline also occurred.
 - The Preferred Alternative includes a median to reduce crashes from crossing the centerline into oncoming traffic.
- Without improvements, Honoapi'ilani Highway is predicted to reach over 60 crashes annually
- With the Project, crashes are predicted to reduce to about 1 crash per year



Archaeology and Architecture Section 6E (HI) Section 106 (Federal)

- Section 106 of the National Historic Preservation Act (54 USC § 306108) requires federal agencies to take into account the effect of its actions on historic properties. It is a standalone review process used to inform NEPA decision-making.
- FHWA, in coordination with HDOT and its consultants, conducted investigations within the Project's area of potential effects (APE) to identify historic properties, which are properties listed in or eligible for listing in the National Register of Historic Places.
- By identifying historic properties, Project alternatives could be assessed to determine effects to historic properties caused by the Project and seek ways to avoid or minimize those effects.







Archaeology and Architecture: Four Steps of Section 106 Process

Step 1: Establish the Undertaking and Initiate Section 106 Process

Step 2: Identify Historic Properties

- Through reconnaissance surveys, professionals meeting the Secretary of the Interior's Professional Qualifications Standards identified:
 - 4 architectural historic properties, including 1 district comprised of 10 contributing resources related to Olowalu sugar plantation history
 - 28 archaeological historic properties in Ukumehame, 7 in Olowalu, and 3 in Launiupoko comprising both historic and Precontact sites
- The preferred alternative avoids direct, physical effects to the majority of these identified historic properties.







Archaeology and Architecture: Four Steps of Section 106 Process

Step 3: Assess Effects

Consultation with the Hawaii State Historic Preservation Department (SHPD) and Section 106 consulting parties is currently occurring. FHWA will assess effects to the identified historic properties, which will be documented in the Final EIS and Record of Decision at the conclusion of the environmental review process.

Step 4: Resolve Adverse Effects

Because subsurface areas of the preferred alternative have not yet been investigated, FHWA and SHPD will enter into a Section 106 Programmatic Agreement to provide a process for continued investigations, consultation, and any required mitigation. Consultation with SHPD and Section 106 consulting parties will continue; 16 such meetings have occurred to date.







- Ka 'Oihana Mahi 'Ai -- Traditional Hawaiian agriculture in the valleys and on the alluvial plain
- Ka 'Oihana Lawai'a Traditional Hawaiian fishing and marine resource gathering
- Kilo and wayfinding traditions
- Traditional Settlement and Spirtuality as reflected in the archaeological footprint and land documents of the Mahele 'Āina



Parks, Recreation, Refuges, and Historic Properties **Protections**

Section 4(f) of the US DOT Act of 1966 provides extra consideration for historic properties as well as publicly-owned parks, recreation areas and refuges. These are "Section 4(f)" properties and receive a special analysis during environmental review.

Before approving a project that uses Section 4(f) property, FHWA must:

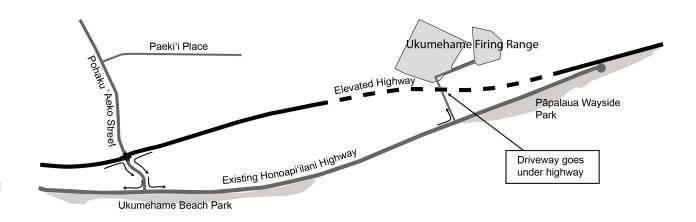
- determine that there is no feasible and prudent alternative that avoids the Section 4(f) properties;
- that the project includes all possible planning to minimize harm to the Section 4(f) properties;
- or, FHWA makes a finding that the project has a *de minimis* (minimal) impact on the Section 4(f) property.

The Draft EIS assessed several properties for Section 4(f) applicability and potential use.

Only one property, the Ukumehame Firing Range, was eligible for Section 4(f) and also has a use from the project.

The Ukumehame Firing Range is anticipated to have a "de minimis" (minimal) impact from the Preferred Alternative, which will extend over the makai parking lot edge on viaduct.

This de minimis impact will be coordinated with County of Maui, the Official with Jurisdiction, for their concurrence. A Section 4(f) de minimis evaluation will be included in the Final EIS.





Potential Land Acquisition - Olowalu





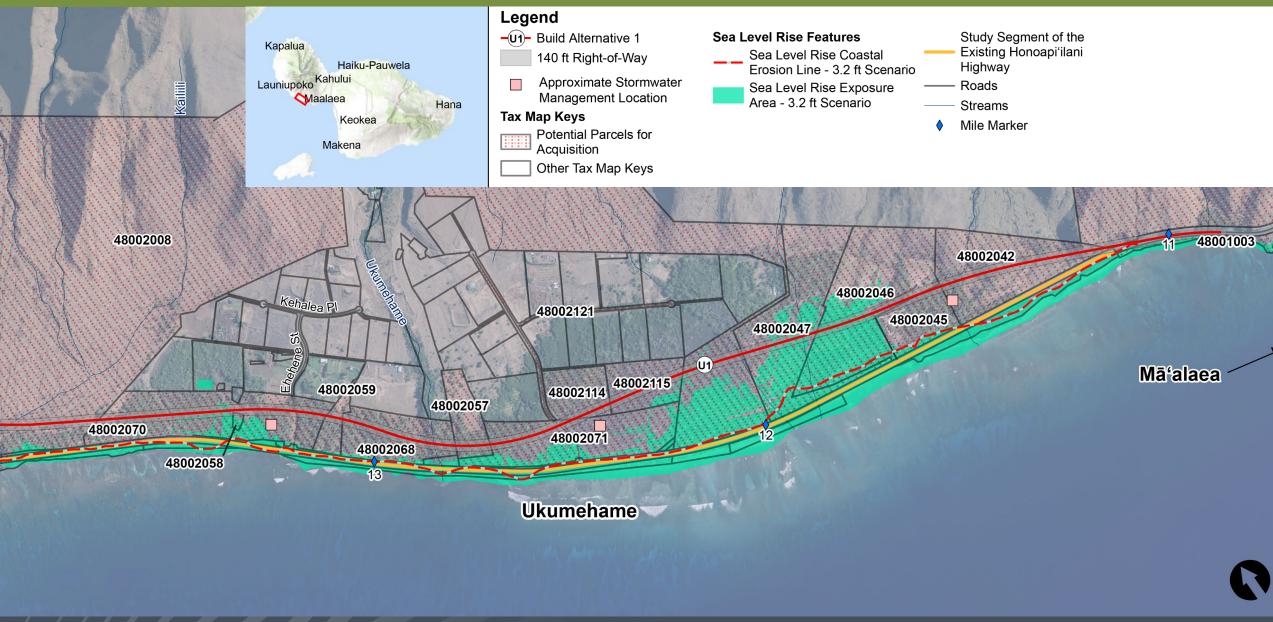




Potential Land Acquisition - Olowalu



IMPACT ASSESSMENT	NO BUILD ALTERNATIVE		ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4	PREFERRED
Number of Private Tax Map Key Properties Affected	0	15	15	15	16	15
Number of Kuleana Properties Affected	0	3	5	8	5	5
Potential Residential Relocation	0	0	0	11	11	0
Potential Commercial/Agricultural Relocation	0	1	1	1	1	1
Community Facilities Relocation	0	0	0	0	0	0











Potential Land Acquisition - Ukumehame



IMPACT ASSESSMENT	NO BUILD ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2/3	ALTERNATIVE 4	PREFERRED
Number of Private Tax Map Key Properties Affected	0	3	1	20	3
Number of Kuleana Properties Affected	0	5	6	7	5
Potential Residential Relocation	0	0	0	0	0
Potential Commercial/Agricultural Relocation	0	0	0	2	1
Community Facilities Relocation	0	0	0	0	0

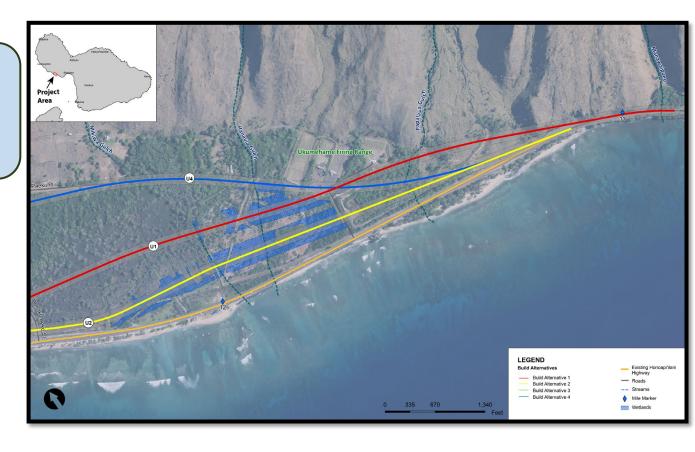


Wetlands and Waters Protection

Wetlands are areas of land saturated with water, either permanently or seasonally, and supports vegetation adapted to these wet conditions.

They are protected by the Clean Water Act, which regulates the discharge of pollutants into waters of the United States and requires permits for activities that could impact these ecosystems.

- Water features in the study area include approximately 21 acres of delineated wetlands, 12 ditches, 2 gulches, and 7 streams.
- Permanent impacts for the Preferred Alternative are not anticipated to exceed 0.1 acre in any delineated jurisdictional wetland.
- Bridges designed for 100-year storms; culverts designed for 50year storms (100-year in FEMA flood zones).
- Construction will adhere to all HDOT standards for control of stormwater, water quality, erosion, sedimentation, and turbidity.
- Compliance with Clean Water Act is ongoing through coordination with U.S. Army Corp of Engineers.
- Clean Water Act permitting will be completed during the next phase of the project.





Threatened and Endangered Species Protection

Threatened and Endangered Species are species that are at risk of becoming extinct.

They are protected by Section 7 of the Endangered Species Act which prohibits their harm and habitat destruction, and by implementing recovery plans to promote their conservation and survival.

- 23 threatened and endangered species were identified as potentially occurring within the project area.
- 2 listed species were observed in project area: Hawaiian Goose (nēnē), Hawaiian Stilt (ae'o).
- No critical habitat identified within the project area.
- Compliance with Endangered Species Act of 1973 through consultation with relevant agencies: NOAA (final), USFWS (ongoing).
- Next steps: finalize measures to protect threatened and endangered species.



