

Honoapiilani Highway Improvements

Ukumehame to Launiupoko

West Maui, Hawaii

SUPPLEMENTARY NOTICE OF INTENT DOCUMENT

Submitted by

Federal Highway Administration

NOVEMBER 2022



Table of Contents

1.0 INTRODUCTION	1
1.1 Project Location	1
1.2 Project Setting and History	1
1.3 Purpose of the Project	4
1.4 Need for the Project	4
1.5 Secondary Objectives	5
1.5.1 Provide Regional Transportation System Linkages that Support the Safe Movement of People and Goods	5
1.5.2 Conform with Regional Land Use and Transportation Plans	6
1.6 Alternatives Screening Methodology and Criteria	8
2.0 PRELIMINARY RANGE OF ALTERNATIVES	12
2.1 Build Alternatives	12
2.1.1 Build Alternative 1 (Red Alignment)	20
2.1.2 Build Alternative 2 (Yellow Alignment)	20
2.1.3 Build Alternative 3 (Green Alignment)	21
2.1.4 Build Alternative 4 (Purple Alignment)	21
2.2 Alternatives Considered but Removed from Further Evaluation	21
2.2.1 Build Alternative 5 (Dark Green Alignment)	21
2.2.2 Transportation System Management and Operations (TSMO) Alternative	22
2.2.3 Alternative Routes	23
2.2.4 Alternative Transportation Modes and Other Operational Alternatives	23
2.3 No-Build Alternative	24
3.0 AFFECTED ENVIRONMENT	25
3.1 Social Environment, Land Use, and Transportation Needs	25
3.2 Physical Environment	26
4.0 PERMITS AND APPROVALS	36
5.0 NEPA PROCESS	38
5.1 Planned Scoping Activities	38
5.2 NEPA Process and Timelines	38
5.3 Draft and Final Environmental Impact Statements	40

List of Figures

Figure 1. Project Location Map	3
Figure 2. Sea Level Rise Exposure Areas.....	7
Figure 3. Proposed Typical Cross-Section.....	14
Figure 4. Build Alternatives Evaluated in Pre-Scoping Phase	15
Figure 5. Refined Build Alternatives with Proposed Project Study Area.....	16
Figure 6 . Build Alternatives - Launiupoko to Olowalu Segment	17
Figure 7. Build Alternatives - Olowalu to Ukumehame Segment.....	18
Figure 8. Land Ownership	29
Figure 9. State Land Use Districts	30
Figure 10. West Maui Community Plan Designations	31
Figure 11. County Zoning Designations	32
Figure 12. Special Management Area (SMA)	33
Figure 13. Streams and Wetlands	34
Figure 14. Agricultural Lands of Importance to the State of Hawaii (ALISH).....	35
Figure 15. NEPA Process Timeline	39

List of Tables

Table 1. Percent of SLR-XA Avoided, by Build Alternative	19
Table 2. Physical and Natural Environment	27
Table 3. List of Anticipated Permits and Approvals.....	36

1.0 INTRODUCTION

This Supplementary Notice of Intent (NOI) Document supports the NOI published in the Federal Register and provides additional details to prepare an Environmental Impact Statement (EIS) for potential improvements to Honoapiilani Highway (State Route No. 30) between Ukumehame and Launiupoko in West Maui, Hawaii. This Supplementary NOI Document and the NOI published in the Federal Register are intended to be read together. Agencies, stakeholders, and the public are invited to comment on the Purpose and Need, Preliminary Range of Alternatives, Alternatives Screening Criteria, environmental studies needed, or any other aspect of the project. Instructions for submitting comments are provided in the NOI. Comments must be received by 30 days after the date of the NOI publication in the Federal Register.

1.1 Project Location

The proposed project is located in West Maui, in the area served by the existing Honoapiilani Highway between milepost 11 and milepost 17. Honoapiilani Highway, which is part of Maui's Belt Road system, is a two-lane principal arterial highway that provides the sole access between communities along the west coast of Maui and the rest of the island. The proposed southeastern terminus at milepost 11 is in Ukumehame in the vicinity of Papalaua Beach Park, and the northwestern terminus of the project is at milepost 17 in Launiupoko, where Honoapiilani Highway currently intersects the southern terminus of the Lahaina Bypass. Because highway relocation will be among the alternatives considered, the project's study area extends *mauka-makai* (from the mountains to the sea) along this highway corridor, from the base of the West Maui Mountains to the existing highway along the coastline, as shown in Figure 1, Project Location Map. This approximately six (6) mile long and 3/4-mile-wide project area is composed predominantly of a coastal plain that includes the *ahupuaa* of Ukumehame, Olowalu, and Launiupoko.

For describing locations, this document generally uses the standard cardinal direction terms north, south, east, and west. In addition, this document also uses commonly used local conventions such as *mauka/makai* (towards the mountains/ocean, which correspond to generally easterly/westerly directions), *pali* (cliff, but also refers to a specific place of steep topography south of the project area) and West Maui place names, such as Lahaina (a town to the north of the project area). These terms may be used interchangeably in this document, whenever most clear or convenient to describe a direction or location.

1.2 Project Setting and History

Honoapiilani Highway is the main travel way for people and goods between West Maui and the rest of the island. It connects West Maui to transportation hubs such as Kahului Airport, Kahului Harbor, hospital and medical services, as well as goods and services not readily available in West Maui. The region hosts about 15% of the island's population and is the second largest employment center (County of Maui, 2022 and 2018 Department of Business Economic Development and Tourism (DBEDT) Data Book, 2019). As the only access to this part of the island, roadway closings and delays carry severe consequences to West Maui residents and the economy. The *Hawaii Statewide Freight Plan* (2018) identifies the top ten truck count locations on each island.

On Maui, Honoapiilani Highway is one of the highest routes for freight truck volumes, as it ranks number four, five, six, seven, and eight in the island's top ten truck count locations. Because there is no other route to central Maui, even slowing traffic along this stretch can have significant effects on the movement of people and freight, including access for emergency vehicles, missed flights, and travel time delays for motorists.

Official data on the frequency of flooding do not exist, but West Maui residents say that Honoapiilani Highway becomes flooded frequently with the seasonal high surf with south swells and king tides (Hawaii News Now, "*As seas rise, calls grow to move major Maui highway inland*", June 14, 2017). Over the past 10 years, this stretch of highway has been repaired three times after storm and high wave events have undermined pavement sections and overtopped the roadway, rendering it impassable. Another repair project is currently in development to address erosion where 4,100 feet of highway fronting Ukumehame and 1,000 feet of highway fronting Olowalu will be shifted eight to twelve feet inland within the existing roadway right-of-way (ROW). These projects are short-term fixes because they address only the most severe locations where the road is already undermined. Federal regulations require that State Departments of Transportation evaluate locations in the transportation network, like this coastal segment of Honoapiilani Highway, that are subject to frequent emergency events and address them in their long-term transportation improvements planning (23 CFR Part 667.1).

The current alignment of Honoapiilani Highway lies within the projected Sea Level Rise Exposure Area (SLR-XA), as defined by the State of Hawaii's Climate Change Mitigation and Adaptation Commission (HCCC) and the State Department of Land and Natural Resources (DLNR). Therefore, service disruptions and the need for emergency repairs are expected to increase as the frequency and magnitude of these flood occurrences are exacerbated by climate change and sea level rise.

The current project is similar to, but shorter than, a previous proposal that sought to address the capacity, safety, and reliability of Honoapiilani Highway between Maalaea and Launiupoko. On June 7, 2007, the FHWA published a NOI in the *Federal Register* for an Environmental Impact Statement (EIS) to realign Honoapiilani Highway in West Maui (72 FR 31649). However, that EIS was never completed, and FHWA rescinded the NOI on June 5, 2020 (85 FR 34712) because the topography and estimated project construction cost for any build alternative exceeded the limited funding available. In contrast to the rescinded project, the current proposal is a more focused project to address the reliability of a shorter segment of the highway.

The project was awarded a U.S. Department of Transportation (USDOT) Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant to assist with funding. The RAISE Grant funding does not predetermine the alternative selection.



Figure 1. Project Location Map

1.3 Purpose of the Project

The primary purpose of this project is to provide a reliable transportation facility in West Maui and improve Honoapiilani 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. Areas within the SLR-XA boundary, including Honoapiilani Highway, are considered exposed and potentially vulnerable to sea level rise. The 3.2-foot SLR-XA encroaches on roughly four (4) miles out of the six (6) miles of the existing highway in the project area. Therefore, the primary purpose of the project is to reduce the highway's exposure to the SLR-XA, where feasible.

Public input received prior to developing this Supplementary NOI document supports this primary project objective. Strengthening and reinforcing the highway's reliability will improve the efficiency of not only daily travel demands important to island residents, businesses, and visitors, but also critical emergency response services.

In addition to creating a more resilient facility, secondary objectives have been identified and are described in Section 1.5. The FHWA and HDOT will finalize this Purpose statement, along with the secondary objectives, after the public scoping review period is complete. The Draft EIS will present supporting documentation for the finalized Purpose.

1.4 Need for the Project

The Hawaii Department of Transportation (HDOT) has prepared recent reports that document the climate hazards to which its facilities are exposed statewide: *Hawaii Highways Climate Adaptation Action Plan Exposure Assessment* (HDOT, May 2021) and *Statewide Coastal Highway Program Report* (HDOT, 2019).

The *Hawaii Highways Climate Adaptation Plan* identifies strategies to create a more resilient transportation system. As part of this plan, exposure assessments were conducted to assess highway infrastructure vulnerability to rockfall and landslides, sea level rise (passive flooding, annual high wave flooding, coastal erosion), storm surge from category 1 through category 4 hurricanes, tsunami, wildfire, and lava flow. Of these potential hazards, the most urgent need in West Maui is sea level rise (combination of passive flooding, annual high wave flooding, and coastal erosion) based on the history of storm surge as described in Section 1.2 (Project Setting and History) and the remainder of this Section.

The University of Hawaii School of Ocean and Earth Science and Technology (SOEST) Coastal Geology Group (CGG) has studied shoreline erosion trends across the State by evaluating mosaics of aerial photography that date back to 1912 (SOEST CGG, Historical Mosaics, <http://www.soest.hawaii.edu/crc/index.php/resources-2/historical-mosaics/>; last updated July 2021, accessed November 4, 2022). SOEST CGG's study areas relevant to this project from north to south are named Launiupoko, Awalua, Olowalu, Hekili, Ukumehame and Papalaua. In general, portions of the shoreline areas abutting the Highway near Launiupoko and between Ukumehame Park and Papalaua Wayside Park, are experiencing significant rates of erosion. Shorelines in these areas have been eroding an average of -1.4 ft/year and -1.9 ft/year, respectively.

For comparison, adjacent transects within the same study areas lose roughly -0.3ft/year and -0.7 ft/year. The eastern portion of SOEST CGG's Hekili study area contains segments of Honoapiilani Highway that is "threatened by shoreline change." (SOEST CGG).

Recognizing the effects of climate change across the State, HDOT commissioned a *Statewide Coastal Highway Program Report* (SCHPR) to develop a scientifically rigorous methodology to assess and rank the susceptibility of Hawaii's coastal roads to erosion and structural degradation due to multiple ocean hazards such as waves, currents, tides, and sea level rise. The report was published in final form on August 21, 2019 (Francis, et al. 2019). One component of this 2019 report evaluated over 300 discrete coastal highway sites across the State threatened by coastal hazards and climate change and prioritized them using a new ranking system called the Coastal Road Erosion Susceptibility Index (CRESI). The report ranked a section of Olowalu, known as Mopua (located in the northwestern portion of SOEST CGG's Hekili study area), as second in priority statewide with the recommendation to harden or relocate the highway. Ukumehame is ranked 11th in priority with a recommendation to elevate or relocate that section of road.

Highway service disruptions are expected to increase as the frequency and magnitude of flood occurrences are exacerbated by climate change and sea level rise. HCCC's SLR-XA boundary delineates the statewide footprint where passive flooding, annual high wave flooding, and coastal erosion has been modeled for the 0.5-foot, 1.1-foot, 2.0-foot, and 3.2-foot SLR-XA) scenarios. Any references to the SLR-XA boundary throughout project documentation assumes the 3.2-foot SLR scenario unless otherwise noted. Areas and assets, including Honoapiilani Highway, within the SLR-XA boundary are considered exposed and potentially vulnerable to SLR. Figure 2 shows the anticipated SLR and associated flooding and coastal erosion. Because of this relationship between the SLR-XA boundary and highway reliability, the project is needed to reduce the Highway's exposure to the SLR-XA where feasible, as described in Section 1.3.

1.5 Secondary Objectives

Preliminary secondary objectives include:

- Provide regional transportation system linkages that support the safe movement of people and goods; and
- Conform with regional land use and transportation plans.

Each secondary objective is briefly described below.

1.5.1 Provide Regional Transportation System Linkages that Support the Safe Movement of People and Goods

Over the last decade, the transportation network just north of the proposed project limits has been undergoing large changes. HDOT improved a portion of Honoapiilani Highway passing through the town of Lahaina and also constructed a portion of the planned Lahaina Bypass *mauka* of Lahaina. Lahaina Bypass Phase 1A from the Keawe Street Extension to Lahainaluna Road was completed in 2012; Phase 1B-1 from Lahainaluna Road to Hokiokio Place was completed in 2013; and Phase 1B-2 from Hokiokio Place to the southern terminus of the Lahaina Bypass was completed in 2018. These improvements are currently functioning as a two-lane highway but grading, drainage, and structures were designed to be fully built out to four lanes if the need arises and funding is available. In considering long-term solutions, consistent roadway system linkages

are needed to connect with these recent inland highway improvements, located beyond the SLR-XA and north of the project area. These improvements will also ensure that the new facility meets or exceeds current design standards.

1.5.2 Conform with Regional Land Use and Transportation Plans

Regional land use and transportation plans support improvements to Honoapiilani Highway as an opportunity to enhance multimodal transportation and access to recreational resources along the coast. The Maui Metropolitan Planning Organization's (MPO) *Hele Mai Maui Long-Range Transportation Plan 2040* (2019) identifies the proposed improvements "as critical to preserve the shoreline for public use". The Maui MPO's plan also seeks to develop West Maui Greenway, which includes paths for biking and pedestrian use from Ukumehame to Lipoa Point at the northern tip of West Maui. As a principal transportation facility, improvements to Honoapiilani Highway must consider how it will fit with the new multimodal facility.

In addition, the County's *West Maui Community Plan Update* (2022), and the *Pali to Puamana Parkway Master Plan* (2005) envision improvements to Honoapiilani Highway that allow "open space and park to buffer against the effects of sea level rise and climate change while providing recreational opportunities." Therefore, to protect the community's critical transportation network, consideration of how the transportation facility interacts with public access to the shoreline and complies with the regional plans for multimodal transportation uses is also needed.



Figure 2. Sea Level Rise Exposure Areas

1.6 Alternatives Screening Methodology and Criteria

Prior to initiating the Draft EIS, potential alternatives will be filtered through a two-step evaluation process designed to arrive at a preferred alternative that meets project Purpose and Need, while reflecting agency and community priorities. Steps in the screening process include:

- Step 1: Pass/Fail Screening
- Step 2: Alternatives Evaluation

Each step is an increasingly detailed analysis of how well an alternative achieves the project Purpose and Need; is considered feasible and constructible; performs under environmental impact indicators; costs; and other screening criteria that may be identified through the scoping process. An inherent aspect of this process is that the level of decision-making relies on information that is commensurate with the project development phase. In other words, qualitative pass/fail screening is used for the wider range of solutions at the project onset, while detailed study, prioritization, and ranking of alternatives across a broad set of criteria is reserved for comparing a smaller range of alternatives. Use of this type of process allows FHWA and HDOT to focus limited resources on those alternatives most likely to be selected as the preferred alternative.

FHWA welcomes comments on the screening criteria and any aspect of the alternatives screening methodology as described in this Section.

Step 1: Pass/Fail Screening

The pass/fail screening, sometimes called a fatal flaw analysis, broadly evaluates whether an alternative meets the project's primary Purpose and Need. In addition, criteria in this analysis considers whether the alternative is fundamentally feasible to construct, as well as the broadly perceived environmental impacts and order of magnitude costs. Four pass/fail criteria in the form of "yes" and "no" questions have been identified to eliminate alternatives that do not meet fundamental requirements of reducing the highway's exposure to the SLR-XA:

- Does the alternative reduce the highway's exposure to the SLR-XA and ocean hazards?
- Does the alternative meet American Association of State Highway and Transportation Officials (AASHTO) design standards?
- Do the order of magnitude costs for design and construction of this alternative fit within the long-term project funding stream?
- Can severe or extraordinary environmental consequences associated with the alternative be mitigated to an extent permissible within regulatory compliance?

An alternative or concept that has a "no" answer to any these questions is considered to not meet the project Purpose and Need or "fatally flawed" such that it would be removed from further consideration. At this stage, the analysis is qualitative and depends on the professional judgment of planners and designers. If a concept should be evaluated quantitatively and with more criteria to make an informed decision with regard to these questions, it can be carried forward to Step 2. However, the answer to these questions must be "yes" for an alternative to be viable. Additional pass/fail criteria may be added as a result of agency and public outreach during the NOI comment period.

Once an alternative has been determined to generally meet the criteria in Step 1, it is deemed to meet the primary Purpose and Need of the project.

Step 2: Preliminary Screening

In Step 2, an evaluation is conducted to determine how well the alternatives compare against each other in meeting the primary Purpose and Need, while balancing cost and environmental impacts. Other agency and community values may be identified for incorporation as criteria in this step as a result of agency and public outreach.

Unlike the first step, where alternatives must pass a basic threshold to advance to Step 2, this step involves ranking alternatives based on measures for each screening criterion. Alternatives that perform well will be further evaluated with more detailed technical study, while less-promising alternatives are eliminated from further analysis. To identify the best possible solutions, alternatives will be modified, typically as part of an effort to adhere to screening criteria. For this reason, the process is iterative. In addition, certain elements of an eliminated alternative concept may be retained and considered within other alternatives.

HDOT and FHWA have identified the following preliminary list of Alternatives Screening Criteria:

- Purpose and Need: Purpose and Need criteria consider how well the alternative performs in meeting the objective to reduce the highway's exposure to the SLR-XA. Reducing the highway's exposure to the SLR-XA may be achieved through a combination of design approaches, which will be considered on balance with environmental impacts criteria, and feasibility/constructability criteria. However, this aspect of screening focuses solely on how well the engineered approach performs in meeting the project's Purpose and Need. Performance measures are expected to become more detailed and quantitative as information is developed and based on the need to further differentiate comparison of each alternative against the evaluation criteria.

Section 2.1 describes the Build Alternatives with a preliminary assessment of the length of highway that each alternative reduces the SLR-XA encroachment on the existing highway by re-locating inland. As information is developed, this evaluation may become more detailed such as calculating the surface area of highway in which the alternative reduces the SLR-XA encroachment. Other information developed regarding the surrounding environment, such as base flood elevations within adjacent floodplains, and depths of coastal inundation, will inform the potential for additional engineering solutions that further reduce the surface area of the highway that remains vulnerable to SLR-XA encroachment. Such information will support more detailed performance criteria to measure the alternative's effectiveness. For example, if an area is partially inundated, do inundation and alternative conditions allow for at least two lanes of passable travel ways? Need for additional screening performance measures will be dictated by the level of design, available information, and whether additional differentiators are warranted for the alternatives comparison to arrive at a preferred alternative.

- Secondary Objectives: Secondary objectives criteria measure how well the alternatives perform in supporting transportation linkages and conforming to regional land use and transportation plans. Performance measures would be a mix of qualitative and quantitative information such as:

- Does the alternative have sufficient right-of-way width to accommodate a future four-lane facility throughout the project limits?
- How many acres of coastal lands does the alternative make available?
- Environmental Impacts: Environmental evaluation criteria relate primarily to the nature and potential degree of adverse effect or benefit to environmental resources. The criteria were derived from several environmental authorities, including:
 - Section 106 of the National Historic Preservation Act;
 - Chapter 343 of the Hawaii Revised Statutes (also known as the Hawaii Environmental Policy Act [HEPA]);
 - Section 404 of the Clean Water Act;
 - Section 4(f) of the U.S. Department of Transportation Act; and
 - Chapter 205A of the Coastal Zone Management Act.

The EIS will evaluate each alternative for intensity of impact on sensitive resources. Major impact criteria are as follows:

- Impacts on Traditional Cultural Practices, and other historic, archaeological, and cultural resources
- Substantial effects to social or economic welfare, including displacements and relocations
- Impacts on rare or endangered species or habitat
- Detrimental Effects to Air, Ambient Noise Levels, or Water Quality
- Impacts on environmentally sensitive areas such as beaches, parkland, and wetlands
- Substantial Effects to Scenic Vistas or View Planes
- Feasibility/Constructability: Once the evaluation accounts for consistency with design standards, the evaluation will apply feasibility criteria. These criteria evaluate the feasibility of each alternative in terms of engineering practicality and ease of construction (constructability) of each alternative. For example, some alternatives may require elevated roadways and bridges, or require curves in the roadway that would necessitate reducing travel speeds to non-permissible levels. The proposed feasibility and constructability evaluation criteria are the following:
 - Amount of grading, filling, and cuts
 - Numbers and types of bridges and culverts
 - Ability to maintain design speed
 - Private property acquisitions
 - Utility needs
 - Ability to phase construction, if needed
- Capital Cost/Financial Viability: Funding criteria is a key constraint that is closely linked to feasibility/constructability. Alternatives under consideration should be feasible within the anticipated long-term funding stream for the project. Critical design elements that

contribute to higher design and construction costs, which will be examined as part of this criteria include:

- Total Capital Cost (including new construction, right-of-way)
- Construction Cost (excluding design and right-of-way)
- Design Cost
- Right-of-Way Cost
- Annual Operating and Maintenance Cost

Only a subset of those alternatives which best meet the purpose and need, and are most aligned with the selection criteria, will undergo detailed analysis in the Draft EIS.

2.0 PRELIMINARY RANGE OF ALTERNATIVES

The preliminary range of alternatives to be evaluated in the EIS include the No-Build Alternative and multiple Build Alternatives. Other alternatives which were considered earlier in the process but dismissed from further consideration are also described below (see Section 2.2). This discussion of project alternatives may be modified based on public scoping input received.

2.1 Build Alternatives

To date, five (5) draft “Build Alternatives” have been identified, based on preliminary community input during early scoping meetings and engineering feasibility concerns. Each alignment assumes a typical 140-foot-wide cross-section, each with a two-lane roadway with sufficient right-of-way width to accommodate up to four lanes in the future, as shown in Figure 3. These five Build Alternatives are depicted in Figure 4 and in Figure 5 the alternatives are further refined. Each alternative would involve construction of a new highway largely along a more *mauka* alignment. However, one of these alternatives has already been eliminated from further consideration, as discussed in Section 2.2.

The Build Alternatives as shown in Figure 6 and Figure 7 show the remaining four (4) Build Alternatives 1 to 4, which are proposed for consideration in the Draft EIS. The current Build Alternatives share the following general characteristics.

- Most Build Alternatives, except Alternative 4, are consistent with alignments that were proposed in the County’s 2005 *Pali to Puamana Parkway Master Plan*, which examined possible realignments of Honoapiilani Highway between Ukumehame and Launiupoko. These alignments were modified to meet AASHTO design standards, avoid areas of erosion, and avoid known archaeological resources.
- All Build Alternatives would move at least a portion of the highway inland, away from the existing coastline and projected sea level rise flooding areas. On the Launiupoko end, all Alternatives would connect the improved Honoapiilani Highway with Lahaina Bypass.
- For portions of alignments that remain within the SLR-XA boundary, additional evaluations will be conducted to determine the depths of inundation at those locations and appropriate design solutions, such as whether the road should be elevated.
- All Build Alternatives would be designed with a 55 mile per hour (mph) design speed and posted at 45 mph, which requires minimizing curves. Typical roadway cross-sections, not accounting for drainage features, would be 140 feet wide to accommodate in-bound and out-bound 11-foot-wide travel lanes, 6-foot-wide shoulders, and a 42-foot-wide median. See Figure 3.
- The project area is constrained at three locations where alignment options are severely limited due to proximity to steep hills or cliffs: (1) near the terminus in Launiupoko; (2) in the Mopua area between Olowalu and Ukumehame, and (3) near the project terminus in Ukumehame, adjacent to the steep *pali* (cliff) area. Additionally, in Ukumehame, there is a public firing range and an adjacent detention basin for stormwater, both of which require special consideration. As shown in both Figure 4 and Figure 5, the greatest variation in the alignment is in the Olowalu area.

- All Build Alternatives would require property acquisitions. In Launiupoko and Olowalu, all alignments would require private property acquisitions. In Ukumehame, most properties immediately *mauka* of the highway are government-owned, meaning the Alternatives using those properties would require little to no private property acquisitions in that area. In contrast, the Alternatives further *mauka* in Ukumehame would require significant acquisition of private property. Although the descriptions of individual alternatives in Section 2.0 identify only Tax Map Key (TMK) Plats within which potential property acquisitions would occur, specific TMK parcels would be identified in the Draft EIS, as details for the short-list of alternatives are refined.

Other actions or alternatives may be identified and developed further as the Purpose and Need statement is refined with input from the scoping process. Prior to the Draft EIS, the list of Alternatives will be screened, using evaluation criteria described in Section 1.6, to develop the preferred alternative.

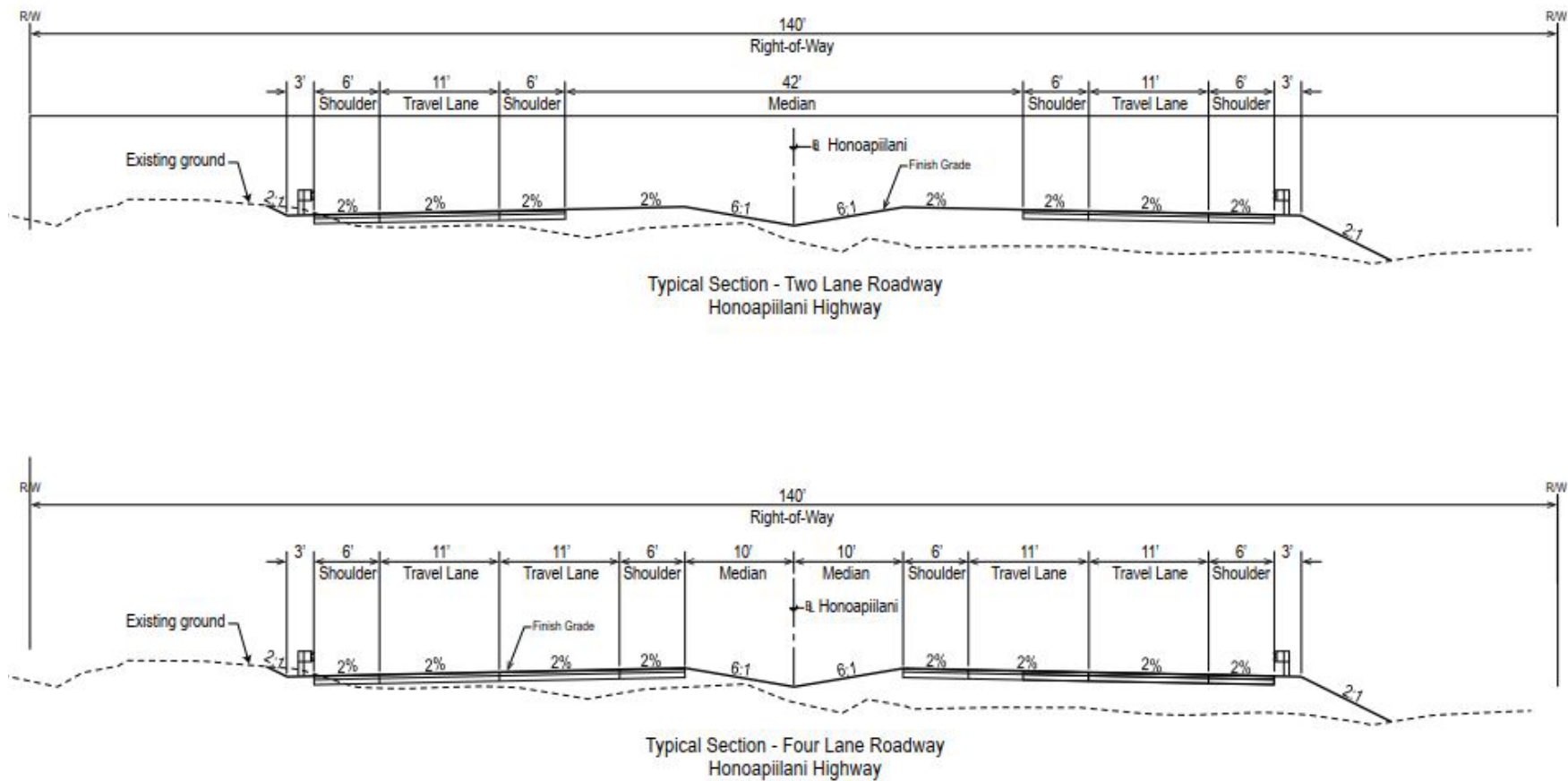


Figure 3. Proposed Typical Cross-Section

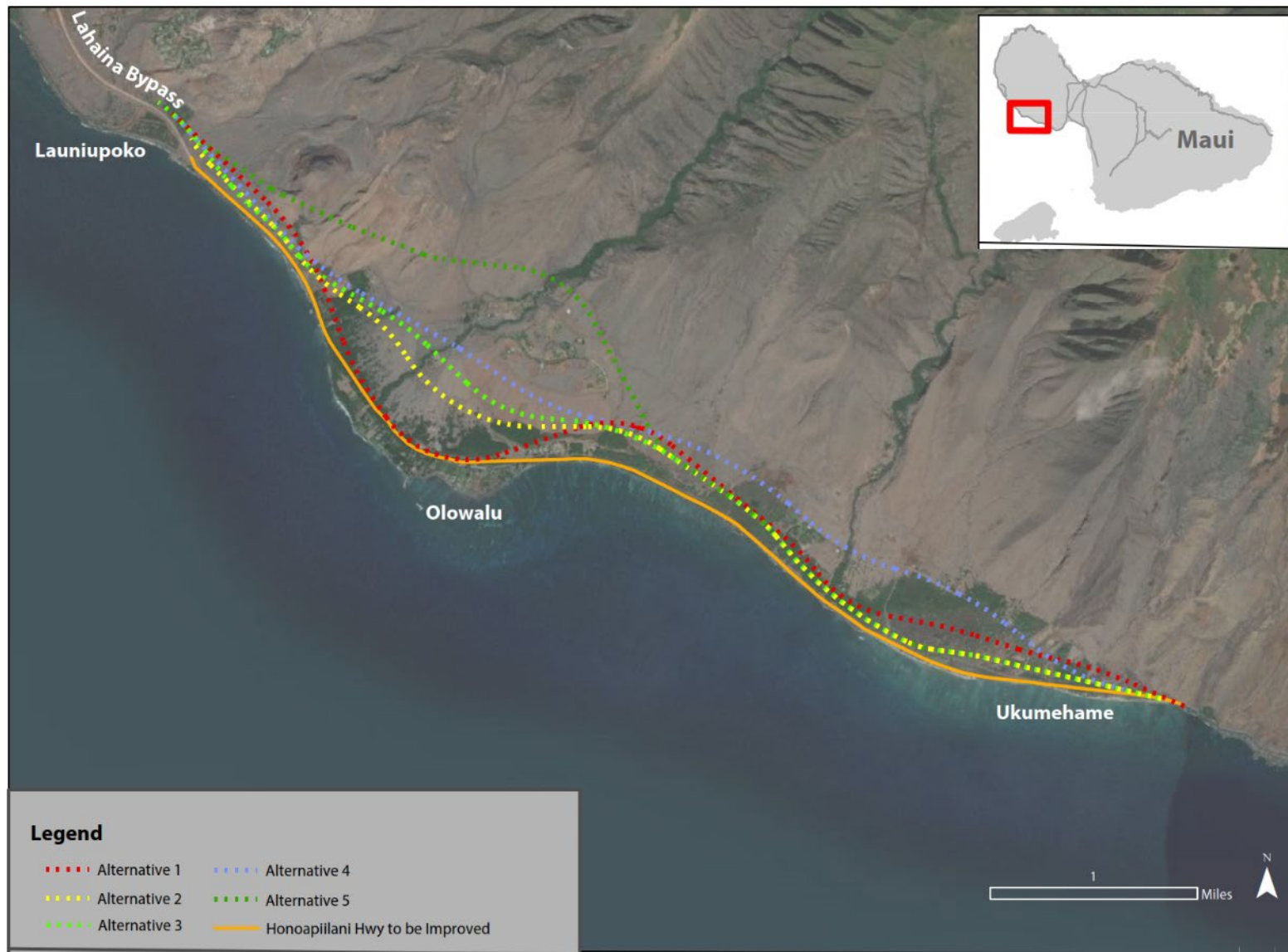


Figure 4. Build Alternatives Evaluated in Pre-Scoping Phase

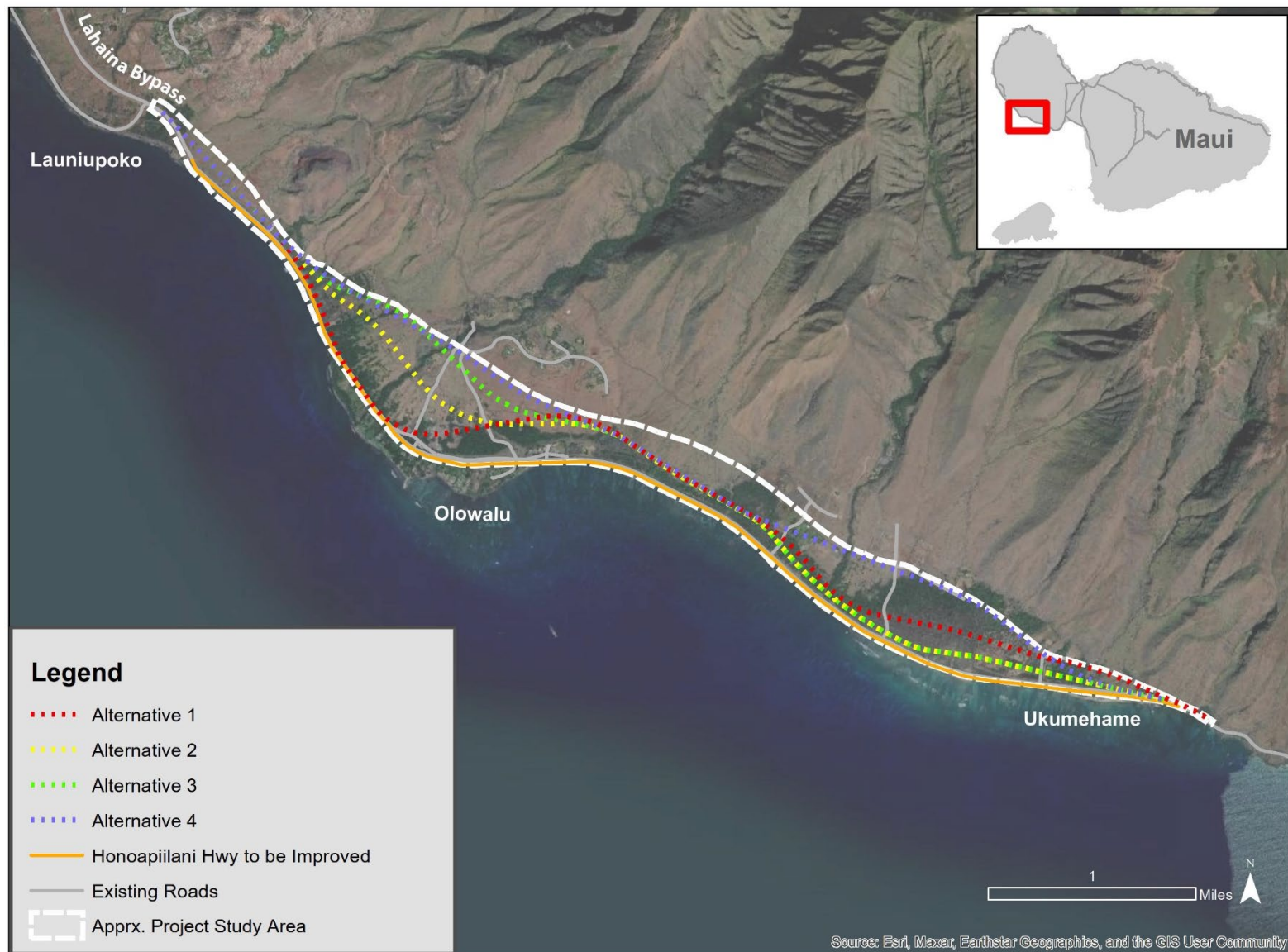


Figure 5. Refined Build Alternatives with Proposed Project Study Area

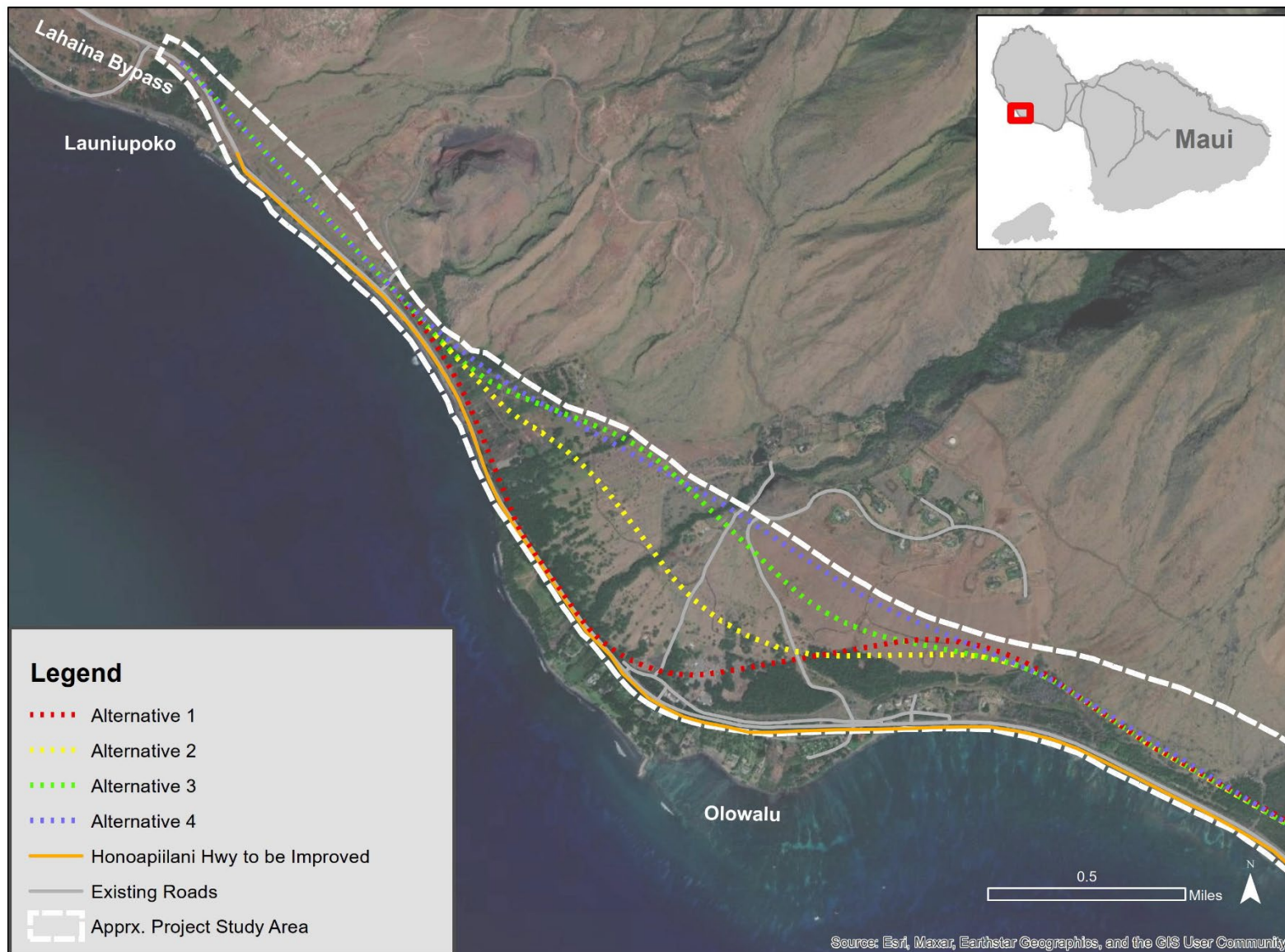


Figure 6 . Build Alternatives - Launiupoko to Olowalu Segment



Figure 7. Build Alternatives - Olowalu to Ukumehame Segment

Table 1. Percent of SLR-XA Avoided, by Build Alternative

Alternatives	Highway Length inside SLR-XA feet (miles)	Percent of roadway in SLR-XA, compared to Baseline¹	Percent of SLR-XA Avoided compared to Baseline²
Existing Highway (Baseline)	20,696 feet (3.9 miles)	No Change	No Change
Build Alternative 1 (Red Alignment)	3,330 feet (0.6 miles)	16%	84%
Build Alternative 2 (Yellow Alignment)	5,992 feet (1.1 miles)	29%	71%
Build Alternative 3 (Green Alignment)	5,988 feet (1.1 miles)	29%	71%
Build Alternative 4 (Purple Alignment)	1,597 feet (0.3 miles)	8%	92%
Build Alternative 5 (Dark Green Alignment)	5,989 feet (1.1 miles)	29%	71%

Notes:

(1) Percent of proposed Alternative remaining in the SLR-XA after realignment. Calculated by dividing the “Highway Length inside SLR-XA” of each Alternative by the “Existing Highway” length inside the SLR-XA.

(2) Percent of SLR-XA avoided, calculated by subtracting (1) from 100%.

2.1.1 Build Alternative 1 (Red Alignment)

Build Alternative 1 was adapted from the County of Maui's Pali to Puamana Parkway 2005 coastal or *makai* concept. A key element of this alternative is to maximize use of the existing Honoapiilani Highway right-of-way (ROW), particularly through Launiupoko and a portion of Olowalu.

The Olowalu section of this Alternative was modified to move the Highway further inland near Kapaiki Place neighborhood on Olowalu Village Road (shown on Figure 5) to avoid cultural resources based on recommendations from the community during early scoping meetings.

As the alignment proceeds toward Ukumehame Stream, it stays primarily within County and State-owned properties that were set aside for future government uses including a State highway. The alignment generally represents the furthest in-land route to avoid the SLR-XA, while remaining within County and State-owned properties, and avoiding the Ukumehame Firing Range near the *pali*. At Ukumehame Stream, the alignment returns closer to the existing highway to minimize potential impacts to land uses, which may be considered cultural practices, occurring on a property identified as a Land Commission Award (LCA) at the *makai* end of Ukumehame Stream. At the Ukumehame Firing Range, this alternative crosses through the SLR-XA, but avoids a sediment basin identified by the U.S. Fish and Wildlife Service's National Wetland Inventory Mapper (NWI) as a potential wetland area. As shown in Table 1, Alternative 1 would avoid approximately 84 percent of the SLR-XA encroachment area on the existing highway. Roughly 0.6 miles (3,330 feet) of this alignment would remain inside the SLR-XA.

2.1.2 Build Alternative 2 (Yellow Alignment)

Build Alternative 2 was adapted from the County of Maui's Pali to Puamana Parkway 2005 "middle" concept. In Launiupoko, this alignment would remain close to the existing Honoapiilani Highway. As this alignment crosses Olowalu, it would require the acquisition of private property, including a number of LCA lands in Olowalu. However, the Alternative would avoid the Kapaiki Place residential neighborhood. In Ukumehame, this alignment follows a more *makai* route to maximize use of County and State-owned property like Alternative 1 and stays closer to the existing Honoapiilani Highway, thereby avoiding impacts to the LCA at the *makai* end of Ukumehame Stream. Unlike Alternative 1, this alignment would not avoid the SLR-XA at Ukumehame Stream, because it seeks to keep as close to the existing Honoapiilani Highway as possible. This alignment would remain in the SLR-XA until it reaches the sediment basin below Ukumehame Firing Range. This sediment basin contains an area identified by the U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) as a potential wetland area.

Alternative 2 traverses the *makai* side of the sediment basin roughly following the *mauka* edge of the SLR-XA. As a result, this alignment does not avoid as much of the SLR-XA as Alternative 1. As shown in Table 1, Alternative 2 would avoid approximately 71 percent of the SLR-XA encroachment area on the existing highway. Roughly 1.1 miles (about 6,000 feet) of this alignment would remain inside the SLR-XA.

2.1.3 Build Alternative 3 (Green Alignment)

Build Alternative 3 was adapted from the County of Maui's Pali to Puamana Parkway 2005 "*mauka*" concept. It is identical to Alternative 2, except in Olowalu where the alignment is further inland or *mauka*. Adjustments in Olowalu were made to avoid affecting properties with permitted building plans that are near to beginning construction and to be more cohesive with the private subdivision's greenway. Most importantly, Alternative 3 attempts to follow an existing roadway and utility easement within the "Olowalu Mauka Roadway and Greenway Plan", once the AASHTO design standards have been applied. Preliminary engineering investigations and comments from early scoping suggest that the terrain underlying Alternative 3 may be more variable and challenging than Alternative 2. The alignment would require acquisition of private property and avoid the Kapaiki Place neighborhood. As shown in Table 1, Alternative 3 would avoid approximately 71 percent of the SLR-XA on the existing highway, similar to Alternative 2. Roughly 1.1 miles (about 6,000 feet) of this alignment would remain inside the SLR-XA.

2.1.4 Build Alternative 4 (Purple Alignment)

Build Alternative 4 was also adapted from the County of Maui's Pali to Puamana Parkway 2005 "*mauka*" concept. The alignment for Alternative 4 was selected to realign the highway as much as possible away from the SLR-XA, without as much consideration for property ownership as other Build Alternatives.

The route through Olowalu that distinguishes this alignment is based on preliminary landowner input provided in 2007. This alignment was further adjusted in 2022 to minimize the creation of remnant parcels by following proposed roads and property boundaries where possible. In doing so, it provides opportunities for multimodal connectivity between the private subdivision's greenway and the realigned highway. In Olowalu, Alternative 4 avoids the Kapaiki Place neighborhood but comes closest to the Puu Kilea cultural reserve, the site of the Olowalu Petroglyphs. Alternative 4 proposes to span a No Build Archaeological Buffer along Ukumehame Stream with a bridge to avoid impacts to this archaeological preservation area that was established as part of the Ukumehame Subdivision project, according to a 2005 Final Environmental Assessment. While other alternatives turn *makai* at Mopua (a locale at the southeastern end of Olowalu), only Alternative 4 continues *mauka* to realign the highway as much as possible away from the SLR-XA. It proceeds toward the Ukumehame Firing Range through private property and passes through the sediment basin before connecting back to the existing highway. As shown in Table 1, Alternative 4 would avoid approximately 92 percent of the SLR-XA on the existing highway, the most of all Build Alternatives. Roughly 0.3 miles (about 1,600 feet) of its alignment would remain inside the SLR-XA.

2.2 Alternatives Considered but Removed from Further Evaluation

The following alternatives were considered but are not proposed for evaluation in the EIS, based on the draft Screening Criteria presented in this Supplementary NOI Document (See Section 1.6).

2.2.1 Build Alternative 5 (Dark Green Alignment)

Build Alternative 5 was the most inland or *mauka* route evaluated with the Build Alternatives. This alignment was a new concept developed to avoid private property acquisition in Olowalu by

realigning the highway well above (*mauka* of) residential areas thereby using almost all County and State-owned lands. As shown in Table 1, this alternative would avoid roughly 71 percent of the SLR-XA encroachment area on the existing highway. Roughly 1.1 miles (about 6,000 feet) of its alignment would remain inside the SLR-XA inundation zone, primarily in the Ukumehame area. As the route approaches Mopua, it would proceed back towards the ocean, following the same path as Build Alternatives 2 and 3 through Ukumehame and would stay within State and County owned properties. For this reason, it is largely consistent with the County of Maui's Pali to Puamana Parkway 2005 plan.

However, FHWA and HDOT has eliminated this alternative from further study due to concerns for archaeological and cultural resources expressed by the Native Hawaiian community in early scoping meetings. Traditional Native Hawaiian land use and resource management still occurring along Olowalu Stream suggest that moving the highway to this upper elevation may create the most significant environmental impacts to both the natural and cultural environment. In addition, because this route would have to cross rugged terrain with many gullies and gulches, the much larger requirements for grading, cuts in the hillside, and bridge work relative to the other alternatives make it likely to have severe environmental impacts and to be the most expensive route.

2.2.2 Transportation System Management and Operations (TSMO) Alternative

Transportation System Management and Operations (TSMO) improvements are operational improvements that do not necessarily involve physical changes to infrastructure but rather maximize the efficiency of the current transportation system or reduce the demand for travel on the system through the implementation of low-cost improvements. TSMO comprises Transportation System Management (TSM) and Transportation Demand Management (TDM) improvements. Examples of TSM activities include the addition of turn lanes, optimized signalization at intersections, and electronic Intelligent Transportation Systems. Examples of TDM activities include ride sharing, van and carpooling, installation of park and ride facilities, and encouragement of teleworking.

A stand-alone TSMO Alternative would leave Honoapiilani Highway and the surrounding community substantially in its current configuration, except for possible short-term and minor activities, such as safety upgrades, maintenance, and previously approved projects, similar to the No-Build Alternative.

The TSMO Alternative would maintain, restore, or enhance the performance of the existing transportation network by implementing an integrated set of strategies to help manage and optimize system operation, including coordinating and collaborating among multiple stakeholders. Such strategies may include a wide variety of actions such as traffic signal optimization and intersection improvements, or collaboration with transportation services providers (e.g., Maui Bus or other community transit systems) to promote multimodal transportation solutions.

As a stand-alone option, the TSMO Alternative does not meet the purpose and need of the project because it assumes that Honoapiilani Highway remains substantially unchanged from its current location and configuration. The highway will remain along the shoreline and will not have measures specifically intended to address rising sea levels and foreseeable future inundation, such as elevating and reinforcing the facility within its existing alignment. Furthermore, although a TSMO alternative may minimize initial cost, ongoing maintenance and repairs costs – including

emergency response – may be higher with a TSMO alternative. Emergency events which periodically close or reduce capacity on the highway will continue to occur. As a result, the TSMO Alternative does not meet the project’s goals to reduce vulnerability to ocean hazards and improve public safety. Therefore, FHWA and HDOT will not consider the TSMO Alternative further in the EIS.

TSM/TDM improvements could be included as part of a Preferred Alternative and are not precluded from being implemented in conjunction with other improvements.

2.2.3 Alternative Routes

HDOT has previously considered alternative roadway routes with the same project termini and alternatives with different project termini. Possible alternative alignments that were previously considered and reasons for their elimination include the following:

- Longer highway realignment from Maalaea to Launiupoko, including a highway through or around the Pali. This alternative would need to include project elements such as a tunnel under/through the mountainous *Pali* region or an Ocean causeway around the coastline. However, as stated in FHWA’s June 5, 2020, notice rescinding a 2007 NOI to prepare an EIS for a longer highway realignment, this alternative route was dismissed from further consideration because of the technical challenges of the difficult terrain and the high construction cost. In addition, there would be multiple land use and environmental concerns involved in traversing the *Pali* region. Therefore, this alternative will not be evaluated in the EIS.
- Kaanapali to Wailuku Highway via the northern coast of West Maui. Kahekili Highway (County Route 340) connects with Honoapiilani Highway via the northern coast of West Maui but is narrow and generally has insufficient capacity and substandard roadway conditions to accommodate the vast majority of traffic traveling to and from West Maui, including freight traffic. It is anticipated that improving this route would result in much greater environmental and community impacts than remaining parallel to the existing Honoapiilani Highway route around the southern end of West Maui.
- Roadway couplet concepts such as two lanes westbound on a *mauka* alignment and two lanes eastbound on the existing road. This alternative would not meet the project purpose and need because it assumes that some travel lanes remain on Honoapiilani Highway along the shoreline and will not have measures specifically intended to address rising sea levels and foreseeable future inundation, such as elevating and reinforcing the facility within its existing alignment.

2.2.4 Alternative Transportation Modes and Other Operational Alternatives

HDOT previously considered alternative modes of transportation to reach West Maui. These alternatives include modes such as light rail transit or an intra-island ferry system between Lahaina and Kahului or Wailuku. Additional alternatives focusing on operational initiatives could help reduce or manage travel demand. These measures may include greater investments in the County bus system, encouraging West Maui hotels to provide enhanced shuttle service and carpools for workers and visitors, a large bikeway network, or other transit modes. However, even if such measures could reduce vehicular travel demand significantly on Honoapiilani Highway, West

Maui needs a reliable roadway continuing to serve as the main vehicular access facility connecting it with the rest of the island. For this reason, other modes and operational alternatives will not be considered in the EIS.

2.3 No-Build Alternative

In accordance with the Council on Environmental Quality's regulations implementing NEPA (40 CFR Part 1502.14(c)), the EIS will retain the No-Build Alternative for detailed study and to serve as a benchmark for comparison with the Build Alternatives.

The No-Build Alternative reflects future conditions if the proposed project were not constructed. Soft protections such as nature-based solutions, hard protections such as revetments and seawalls, or a combination of protections and elevating the road are short- to mid-term fixes and would be included in the No-Build Alternative due to the current state of the road and chronic impacts from coastal hazards. Future conditions would be based on projections of land-use and development that are likely to occur 25 years after the project is constructed. The Draft EIS will provide a comparison of project impacts based on the planning horizon year 2050.

The No-Build Alternative includes elements of the TSMO Alternative (see Section 2.2.1) and would leave Honoapiilani Highway in place except for possible short-term and minor activities such as safety upgrades, maintenance, and previously approved projects. Hardening in place and short-term fixes would be needed continually to address chronic impacts from coastal hazards.

3.0 AFFECTED ENVIRONMENT

This section provides a brief overview of the existing environmental conditions within the project study area. The Draft EIS will describe and evaluate potential direct and indirect impacts on existing conditions including, but not limited to, the resources described in this section.

3.1 Social Environment, Land Use, and Transportation Needs

West Maui is home to approximately 25,000 people, of which about 13,000 live in the area around the town of Lahaina north of the project study area. Since 2010, West Maui has experienced a faster population growth rate than the rest of the State. By 2040, West Maui is expected to have a population of almost 35,000. As with the rest of the State, tourism is a significant source of revenue for Maui. In 2019, West Maui had an average of 36,000 daily visitors, making it the second largest employment center on the island (West Maui Community Plan Update, January 2022. American Community Survey, Demographics data 2015-2019, U.S. Census Bureau.)

In contrast to the fast-growing Kaanapali, Lahaina, and Kapalua communities, the project area between Ukumehame and Launiupoko is considered much less developed and rural. It hosts two distinct communities - Olowalu and Ukumehame, who trace their settlement back to pre-western contact. To this day, small scale agricultural uses of the fertile land and stream resources, including *loi kalo* (taro), can be found amidst the fallow sugarcane fields that once supported the West Maui Plantation, Olowalu Company, and the Pioneer Mill Company.

Several residential development projects are planned by third parties on these pre-contact settlement areas and former sugar cane plantations, as well as further north towards Lahaina and Kapalua. Additional roadway infrastructure and public services are anticipated to accompany these planned developments, which may conflict to varying degrees with the proposed Honoapiilani Highway improvements. See Figure 8 for property ownership categories in the area, which indicate lands owned by developers and other private owners.

Moreover, County of Maui planning documents such as the *West Maui Community Plan Update* (2022), Maui MPO's *Hele Mai Maui Long-Range Transportation Plan 2040* (2019), the *Maui County General Plan 2030* (2010), and the older *Pali to Puamana Parkway Master Plan* (2005) all also acknowledge the importance of preserving open space, including shoreline parks and greenways. These County planning documents also emphasize the need for a multi-modal approach to transportation, moving the focus away from automobiles. Some of these plans specifically envision that a realigned Honoapiilani Highway would allow the development of an open space and park below the current highway alignment by making additional scenic and open areas available and converting the existing highway footprint to bicycle and pedestrian uses along the shoreline. In addition, HDOT's *Bike Plan Hawaii Refresh* (2022) and *Bike Plan Hawaii* (2003), a master plan to enhance the bicycling environment statewide, identifies Honoapiilani Highway as a future proposed bike route.

Public services in this area between Ukumehame and Launiupoko are currently limited. There are no fire stations, police stations, schools, libraries, or post offices. Nearest providers of such government services are in Lahaina, over four (4) miles north of the project's terminus in Launiupoko. Public recreational resources along this stretch of Honoapiilani Highway are primarily the coastline and public parks. Within the study area there are three designated public parks: Papalua Wayside Park, Ukumehame Beach State Park, and Launiupoko Wayside Park

(Figure 1). Much of the coastline provides opportunities for ocean activities such as surfing, fishing, swimming, picnicking, sunbathing, snorkeling, camping, and sightseeing.

A unique recreational resource within the project study area is the Ukumehame Firing Range, owned and operated by the County of Maui Parks Department, and is Maui's only firing range. This firing range is located near the Ukumehame terminus of the project study area. Most of its property in use for firing range activities lies to the *mauka* side of the facility, while the *makai* portion of the property is used for parking and other less essential functions of the firing range. If the proposed highway improvements were to use land within a public park or recreational area, such as the Ukumehame Firing Range or a beach park, a Section 4(f) analysis would be conducted in accordance with the requirements of the U.S. Department of Transportation (DOT) Act to demonstrate that there is no feasible and prudent alternative to the use of that recreational facility; that only a *de minimis* impact would occur to that facility; or the project's use meets specific criteria that would be considered exempt from the rule.

In accordance with the Executive Order on Environmental Justice (E.O. 12898), the Draft EIS will include information on the location of and project effects on minority and low-income populations, if any. The Draft EIS will include information on the location of and project effects on EJ populations, such as the communities of Olowalu, Ukumehame and including the neighborhood of Kapaiki Place, to evaluate the potential for adverse effects. The analysis will include a determination of adverse effects and whether those effects would rise to a level of disproportionately high and adverse effects. As appropriate, the Draft EIS will incorporate measures to avoid adverse effects and if possible, reduce impacts to any disproportionately high and adverse effects on minority and low-income populations' health or environment. Impacts to EJ communities may include ROW acquisition for a new alignment, increases in noise, or other environmental factors.

3.2 Physical Environment

Steep valleys and ridgelines of the West Maui mountains frame the physical boundaries for the communities of Olowalu and Ukumehame, which are then further subdivided by the Olowalu and Ukumehame Streams and tributaries. Towards the coastline and the existing Honoapiilani Highway, the slopes become less rugged and steep, eventually settling to a three percent to near level slope at the coastal plain. Offshore, the Olowalu reef area, which extends from Ukumehame to Launiupoko, hosts about 1,000 acres of some of the healthiest and oldest living corals within the main Hawaiian Islands (Maui Nui Marine Resource Council, 2017).

The Draft EIS will include an assessment of ecological resources in the project study area, including a botanical survey and wetland study that will identify vegetation types and plant communities. The Draft EIS will also discuss the presence or absence of threatened and endangered species or species of concern to support required regulatory consultation for these resources. (See Section 5.0, Permits and Approvals)

The Draft EIS will also include studies of archaeological/historical sites and cultural practices in the project study area. The corridor includes pre-contact sites and features, such as heiau, petroglyphs, habitation sites, burial sites, and post-contact agricultural features such as water ways, plantation villages for workers, and the Olowalu Sugar Mill Ruins. Archaeological and historic properties in the corridor will be considered in the Draft EIS, as part of conducting consultation

under Section 106 of the National Historic Preservation Act and complying with Section 4(f) of the U.S. DOT Act. FHWA and HDOT will coordinate with the State Historic Preservation Officer (SHPO) and native Hawaiian Organizations (NHO). Documentation of the Section 106 consultation process will be included in the Draft and Final EIS. Parties with an interest in the project's potential impact on archaeological, historical, and cultural resources are asked to contact HDOT during the NOI review and scoping process.

A study of the project's potential impact on the visual environment will be included in the Draft EIS. Visual impacts arising from changes in available views of the landscape as a result of the project would be determined through the subjective assessment of sensitivity of the visual receptors such as those driving on the highway and the magnitude of the change in view.

Table 2 summarizes the physical and natural environment in the project area. Resources that are likely to be affected or concerns that may be a differentiator among the Build Alternatives are described in the table. Temporary construction impacts will also be discussed in the Draft EIS.

Table 2. Physical and Natural Environment

	Description of Project Study Area
Existing and Proposed Land Uses	The existing Honoapiilani Highway right-of-way is used for transportation purposes. A new alignment may require use of undeveloped and partially developed lands, those formerly used for agriculture, and cultural preservation lands. Areas currently or proposed to be used for residential, commercial, public facility, agricultural development lots, and/or parklands may also be affected. (See Figure 8 through Figure 11)
State Land Use Districts	Agricultural, Conservation (See Figure 9)
West Maui Community Plan	Park, Open space, Agriculture (See Figure 10)
County Zoning Designation	Agriculture, Park, Residential, Commercial (See Figure 11)
Special Management Area	Within Special Management Area (SMA) (See Figure 12)
Streams, Wetlands, and Floodplains	<p>There are three major streams in the project area: Launiupoko, Olowalu, and Ukumehame Streams. There are additional streams in the project corridor. (See Figure 13) The Draft EIS will identify major streams/tributaries, ditch systems, wetlands and other "waters of the U.S." in the study corridor.</p> <p>According to the U.S. Fish and Wildlife Service Wetland Mapper, small wetlands may exist in the project study area, including a rectangular property between the Ukumehame Firing Range and Papalaua Wayside Park. (See Figure 13) Fieldwork will be conducted to identify and delineate wetlands that may be affected and identify appropriate avoidance, minimization, and mitigation measures.</p> <p>Portions of Honoapiilani Highway are currently located in flood-prone areas, as defined by the Federal Emergency Management Agency (FEMA). The Draft EIS will identify current and future flood-prone areas. Because a new roadway could affect regional drainage patterns, the Draft EIS will examine the impact of each of the project alternatives on area hydrology, drainage, and flood conditions.</p>
Tsunami Evacuation Zones	The existing Highway is within the Tsunami Evacuation Zone.

Biological Resources	<p>The project will include preparation of technical reports on biological resources to characterize the ecology of the area. The Draft EIS will include an assessment of protected species, including botanical resources, terrestrial animals, and birds. A botanical survey and wetland study will identify vegetation types and plant communities within the project area. Because in-water work may be needed to build bridges over major streams in the area, a report documenting habitat for native and introduced aquatic species (e.g., fish, insects, mollusks, and crustaceans) will be prepared. The Draft EIS will also propose mitigation measures to minimize the impact of construction activities.</p> <p>FHWA and HDOT will consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration (NOAA) will be conducted in accordance with Section 7 of the Endangered Species Act, as well as the State of Hawaii Department of Land and Natural Resources (DLNR).</p>
Archaeological, Historic, and Cultural Resources	<p>A number of archaeological, historical, and cultural sites are present in the project study area, including well-known sites such as the Olowalu Petroglyphs and Olowalu Cultural Reserve. Given the prolific pre-contact settlement in this area, at the request of the Native Hawaiian families, Land Commission Award properties (LCAs) will be avoided whenever possible to minimize potential impacts to archaeological and cultural resources and Hawaiian family properties. Other sensitive resources, and technical reports prepared on these subjects may be kept confidential and not reproduced in the public distribution of the Draft EIS. A summary discussion of archaeological, historical, and cultural resources will be provided in the Draft EIS.</p>
Agricultural Lands of Importance to the State of Hawaii (ALISH)	<p>Important agricultural lands are present throughout the project study area. As shown in Figure 14, the project study area includes Agricultural Lands of Importance to the State of Hawaii (ALISH) and Federally-defined Prime and Unique agricultural lands. Potential impact to farmlands will be evaluated according to the Federal Farmland Protection Policy Act (FPPA).</p>
Hazardous Materials	<p>The Draft EIS will include a hazardous materials study, to identify potential soil and groundwater contamination sites and to assess the impact of the proposed action. Areas of concern may include lands previously in agricultural use or near the Olowalu Recycling and Refuse Convenience Center.</p>
Visual Impacts	<p>The Draft EIS will include a study of the visual impacts of the potential alternatives. Consideration for voyaging canoes and wayfinding cultural practices will be included.</p>
Climate Change and Sea Level Rise	<p>The Draft EIS will evaluate the existing and proposed highway's vulnerability to coastal hazards, specifically existing and future coastal erosion and flooding. See Figure 2 for anticipated sea level rise and associated flooding and coastal erosion.</p>

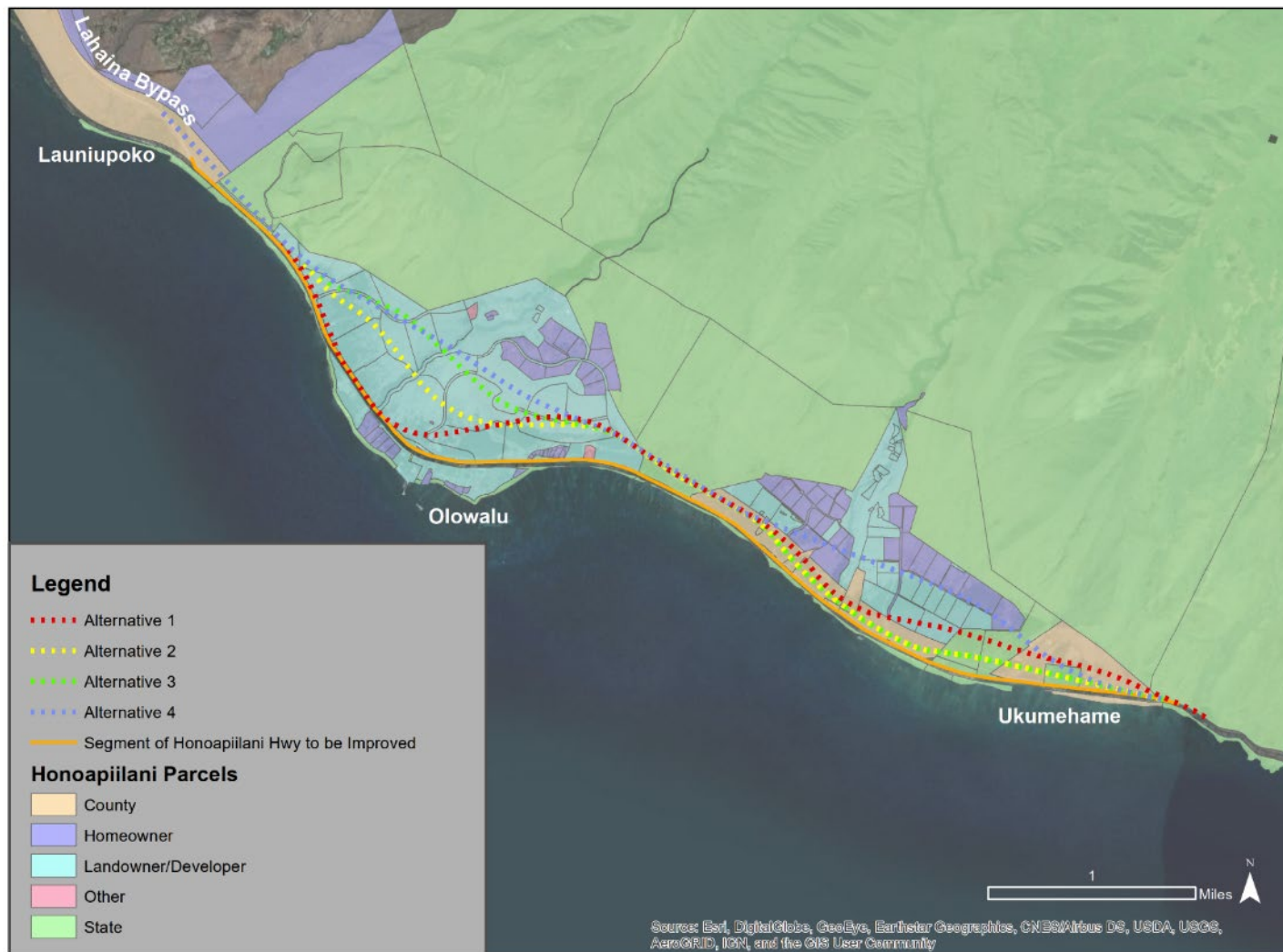


Figure 8. Land Ownership



Figure 9. State Land Use Districts



Figure 10. West Maui Community Plan Designations



Figure 11. County Zoning Designations



Figure 12. Special Management Area (SMA)



Figure 13. Streams and Wetlands



Figure 14. Agricultural Lands of Importance to the State of Hawaii (ALISH)

4.0 PERMITS AND APPROVALS

The permits, reviews, and approvals required for the project will depend on the features of the selected alternative. The list of anticipated Federal, State, and local permits in Table 3 will be refined as the project alternatives are developed. Input on other approvals that may be necessary is requested from government agencies and other participants as part of this environmental review process.

Table 3. List of Anticipated Permits and Approvals

Permit / Approval	Issuing / Approving Agency
Federal	
National Environmental Policy Act (NEPA)	Federal Highway Administration (FHWA)
Department of Army Permit, Clean Water Act (CWA) Section 404 and Rivers and Harbors Act (RHA) Section 10	U.S. Army Corps of Engineers (USACE), Regulatory Branch
Department of Transportation Act of 1966, Section 4(f) Evaluation	FHWA
Federal Emergency Management Agency (FEMA) Floodplain Coordination	FEMA
Endangered Species Act, Section 7 consultation	U.S. Department of Interior, U.S. Fish and Wildlife Service (USFWS); and U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS, also known as NOAA Fisheries)
Farmland and Conversion Impact Rating, pursuant to the Farmland Protection Policy Act	U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS)
Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat coordination	NMFS (NOAA Fisheries)
National Historic Preservation Act Section 106 consultation	State Historic Preservation Officer (SHPO)
Clean Air Act, Section 309	U.S. Environmental Protection Agency
U.S. Coast Guard (USCG) Bridge Permit Coordination	U.S. Coast Guard (USCG)

Permit / Approval	Issuing / Approving Agency
State of Hawaii	
Hawaii Revised Statutes (HRS) Chapter 343, environmental review compliance	Governor, State of Hawaii
Coastal Zone Management Act (CZMA) Consistency Determination	Department of Business, Economic Development and Tourism, Office of Planning and Sustainable Development, Coastal Zone Management Program (DBEDT-OPSD, CZM)
CWA Section 401, Water Quality Certification	Department of Health (DOH), Clean Water Branch
CWA Section 402, National Pollutant Discharge Elimination System (NPDES) Permit	DOH, Clean Water Branch
HRS Chapter 6E-8, historic preservation review	Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD)
Stream Channel Alteration Permit (SCAP)	DLNR, Commission on Water Resource Management (CWRM)
Conservation District Use Permit	DLNR, Office of Conservation and Coastal Lands (OCCL)
Americans with Disabilities Act Accessibility Guidelines	DOH, Disability and Communication Access Board (DCAB)
Community Noise Permit / Community Noise Variance	DOH, Indoor and Radiological Health Branch
County of Maui	
Special Management Area (SMA) Permit	County of Maui Planning Department
Building and Grading permits	County of Maui Planning Department

5.0 NEPA PROCESS

5.1 Planned Scoping Activities

FHWA and HDOT have developed a *Coordination Plan for Public Outreach and Agency Involvement* (Coordination Plan) for this project, which articulates the roles and responsibilities of those agencies invited to participate as Cooperating or Participating Agencies in the project development and review process. Consistent with this plan, a series of community meetings are also planned. One set of informal Community Open House meetings was conducted on February 22 and 24, 2022. Additional small meetings were held prior to the preparation of this NOI, including meetings with agencies, landowners, and Native Hawaiian organizations (NHO) and individuals.

To assist further in determining the scope of issues to be addressed and in identifying the potential for significant issues related to the proposed action, a public scoping meeting will be held following the publication of this NOI. A 30-day public comment period will begin upon the publication of the NOI. The public will have the opportunity to submit written comments at the public scoping meeting and during the 30-day scoping comment period. Similarly, a 30-day scoping comment period for the HRS Chapter 343 review process will also be held roughly concurrently with the NEPA scoping period.

Two virtual public scoping meeting will be held on December 14, 2022; one from 12 p.m. to 2 p.m. and a second from 6 p.m. to 8 p.m. An in-person public scoping meeting will be held on December 15, 2022 at the Lahaina Civic Center from 6 p.m. to 8 p.m. The most current public meeting information will be available on the project website at www.HonoapiilaniHwyImprovements.com.

For public scoping information and requests, including special assistance requirements to participate fully in the meeting, please contact HDOT using the contact information provided on the Project Summary pages at the beginning of this NOI by **December 7, 2022**.

5.2 NEPA Process and Timelines

Figure 15 illustrates when the important decision points during the environmental review process occur. Timeframes may be adjusted as needed.

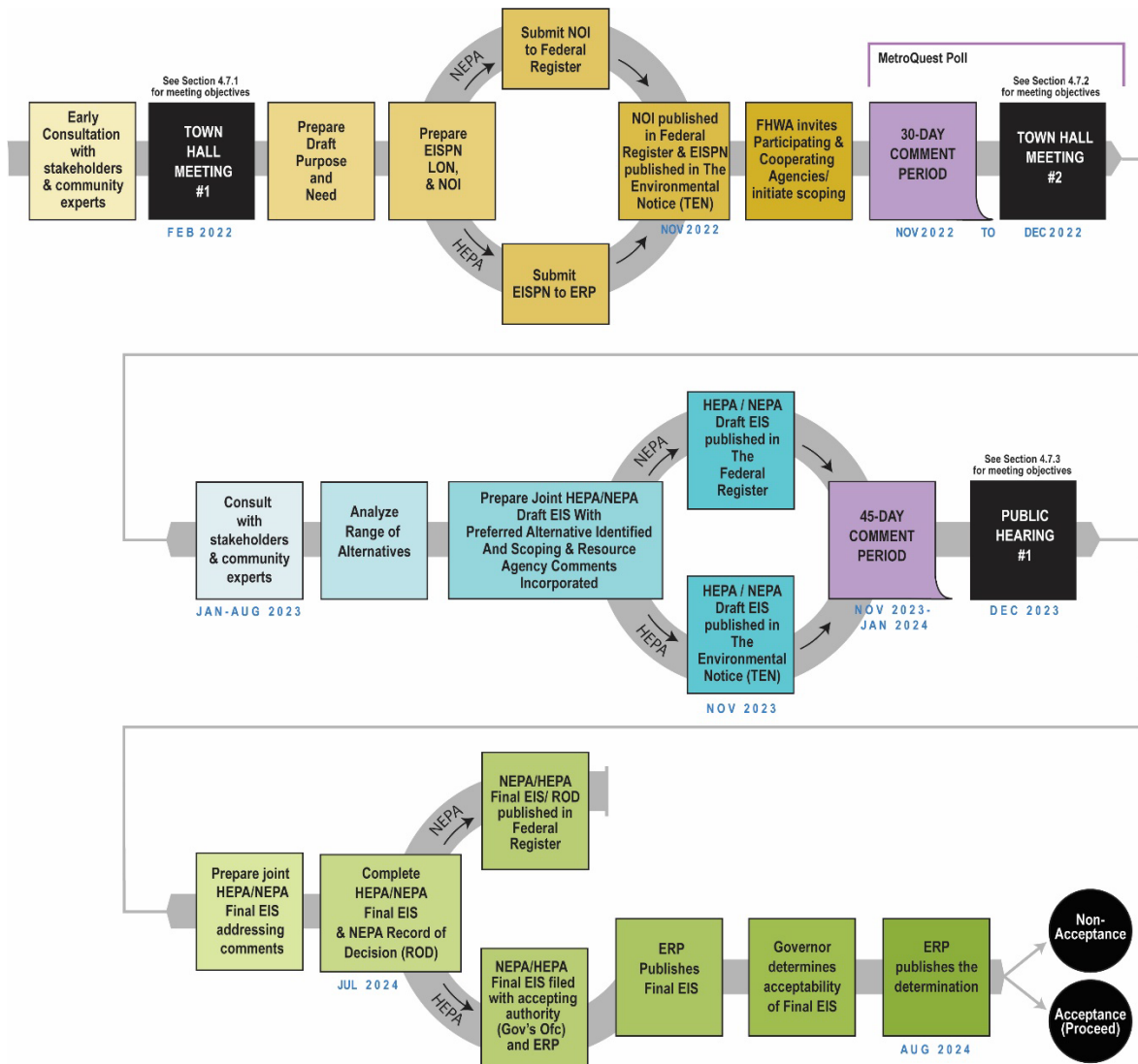


Figure 15. NEPA Process Timeline

5.3 Draft and Final Environmental Impact Statements

Scoping input will be considered in the selection of alternatives for further study and development of the Draft EIS. The Draft EIS will describe the project alternatives being considered, and discuss the potential impacts of the alternatives in a comparative format. It will define the issues that differentiate between the alternatives and provide a basis for choosing a preferred alternative. Areas of potential impact to be discussed in the EIS will be finalized after the completion of the scoping process, but may include land use and zoning; parklands and recreational resources; shoreline access; economic development; community disruption and displacements; environmental justice; cultural, historic, and archaeological resources, aesthetics; air quality; noise; wildlife, vegetation, threatened and endangered species; farmland; water quality, wetlands, waterways, and floodplains; energy; hazardous materials; indirect and cumulative impacts; and construction-phase impacts. The EIS will also address impacts to resources protected by Section 4(f) of the 1966 U.S. Department of Transportation Act.

Upon completion of the Draft EIS, a notice of availability will be published in the State's Environmental Review Program's (ERP) publication, *The Environmental Notice*, and a notice of availability will be published in the *Federal Register*. The ERP notice will trigger a 45-day public review period under HRS Chapter 343, and the *Federal Register* notice will also trigger a 45-day public review period under NEPA. All comments received by the later deadline will be considered. A Draft EIS Public Hearing will be conducted during the public review period. The Final EIS will incorporate public comments on the Draft EIS.

Under HRS Chapter 343, upon acceptance by the Governor of Hawaii of the Final EIS, a notice of acceptance of the Final EIS will be published in *The Environmental Notice*, initiating a 60-day challenge period.

Title 23 U.S.C. 139(n)(2) provides for a combined Final EIS and Record of Decision (ROD) document. Therefore, the project development team intends to prepare a combined Final EIS/ROD, so long as the project meets the conditions outlined in FHWA's January 14, 2013 guidance document on MAP-21 Section 1319 Accelerated Decision-making in Environmental Reviews.