

# Forest Legacy Project

## East Maui Rainforest

Haiku, Maui, Hawaii, Hawaii



### FUNDING HISTORY

FY 2022 Forest Legacy Program Funding	\$6,000,000
FY 2022 Non-Federal Cost Share	\$4,000,000
FY 2022 Project Costs	\$10,000,000
FY 2022 Project Acres	1,047
<b>Forest Legacy Funding To Date</b>	<b>\$0</b>
<b>Total Project Costs</b>	<b>\$10,000,000</b>
<b>Total Project Acres</b>	<b>1,047</b>



Tract Name	Size (ac)	Tract Cost	FLP Funding	Non-Fed Cost Share	Status
Hana Highway Coastal Rainforest	1,047	\$10,000,000	\$6,000,000	\$4,000,000	Proposed 2022

### GENERAL DESCRIPTION

Cascading waterfalls, towering cliffs, and coastal rainforest are just a few of the important features of the 1,047-acre Hana Highway Coastal Rainforest (HHCR) tract of the East Maui Rainforests Project on the island of Maui. FEE acquisition of HHCR secures public access to forest and shoreline resources that support recreational, cultural, and subsistence uses. The coastal cliffs and forested plateau of HHCR contain designated federal critical habitat for 5 federally endangered plant species and nesting habitat for 10 seabird species. Originating at the summit of Haleakala Volcano, 9 streams flow through HHCR to the sea providing habitat for native stream fauna and nutrient-rich freshwater for coastal fisheries. Under private ownership, HHCR is under imminent threat of conversion, as its dramatic scenic features, accessibility, and lack of protection make it well suited for residential development. Strategically located next to state forest reserve, HHCR is a priority for the state which is actively working to strengthen the continuity of protection and management of the region's forests from the summit to the sea. HHCR will also expand the existing 108,000-acre contiguous network of protected reserves that encompass Haleakala.



The coastal forests of HHCR extend nearly 1 mile upland from the sea cliffs (Photo by DOFAW)

### PROJECT FEATURES

#### Important

- **SCENIC:** HHCR borders a 7 mile stretch of the world-renowned Hana Highway that meanders along Maui's northeast coast. Famous for stunning views of lush forest, towering cliffs, 50 historic bridges, and 20 cascading waterfalls, the highway is a popular full-day tourist experience (1,800 cars/day).
- **PUBLIC ACCESS:** The northeast coast of Maui has the fewest shoreline access points on the island, restricted in several locations by private development. HHCR will secure public access to forest and shoreline resources that support recreational, cultural, and subsistence uses.
- There are only 2 managed public coastal recreation areas in the region; the closest is a 1-hour drive east of HHCR at the over-capacity Wainapanapa State Park (300K visitors/yr). HHCR will provide additional recreation opportunities such as hiking trails from the highway to and along the shore.

- **AQUATIC HABITAT:** Upland of HHCR's 9 perennial streams (10% of total on Maui), regulated diversion of stream water is permitted for private agricultural use. Acquisition will ensure continuous flow of the remaining water from Haleakala's summit to the sea, protecting stream ecological integrity.
- Streams that flow from headwaters to the sea are critical for survival of native Hawaiian goby which migrate upstream by ascending steep waterfalls. Goby and other native stream fauna, such as shrimp and damselflies, have been observed in HHCR's 2 highest quality streams, Waikamoi and Puohokamoa.
- The coastal waters off HHCR are classified as AA water quality (highest EPA Clean Water rating). Forest protection and soil erosion mitigation upslope will preserve the clean and clear water that flows to the sea.
- Water in northeast Maui is a critical resource for recreational, subsistence, and cultural uses. HHCR's streams provide nutrients and freshwater that support healthy coastal fisheries and populations of native stream fish and shrimp that are an important component of fishing in the region.
- **T/E SPECIES:** HHCR has 8.6 acres of federal designated critical habitat for 5 coastal plant species, such as *Brighamia rockii* which has less than 200 wild individuals. Surveys of HHCR will inform management actions to protect and expand the population and habitat of these species.
- HHCR's coastal cliffs provide nesting habitat for 10 seabird species, 2 of which are federally endangered (Band-rumped storm petrel and Newell's shearwater). 4 species, including the black noddy and white-tailed tropic bird, are present at HHCR nesting in cliff faces and burrows under tree roots.
- HHCR is an important undeveloped sea-to-land flyway for the federally endangered Hawaiian Petrel, with the largest known nesting colony located upland at Haleakala National Park. If developed, artificial lights on HHCR will disorient petrels and other seabirds potentially causing injury or death.
- Two federally endangered native damselfly species (*Megalagrion nesiotes* and *Megalagrion pacificum*) have been observed in HHCR's streams. HHCR's forests support foraging and roosting habitat for the federally endangered Hawaiian hoary bat, threatened by habitat loss and collisions with structures.
- Marine habitat extending 200 meters off HHCR are federal designated critical habitat for the federally endangered Hawaiian Monk Seal. Protection and proper management of the forest and streams on HHCR will support the health of the near-shore marine ecosystems critical for monk seal recovery.
- **ECONOMIC/NON-TIMBER:** Tourism is the largest economic driver on Maui, which saw 3M visitors spend \$5.12B in 2019. Visitors who drive Hana Highway past HHCR's scenic beauty spend over \$210/day on lodging, shopping, food, car rental, and attractions, contributing \$138M/year to the local economy.
- HHCR provides opportunities to generate revenue through camping, agroforestry crops, and non-timber forest products such as hala tree leaves and bamboo shoots which are actively being harvested nearby in Koolau Forest Reserve. Revenue generated will support management activities on HHCR.
- **UNIQUE:** Undeveloped coastal forests and shorelines areas have become rare in Hawaii due to development pressures. On Maui, 43% of private coastal areas and have been developed or converted to agriculture. 80% of HHCR remains in mixed native/non-native forest providing irreplaceable coastal habitat.
- **CULTURAL:** Native Hawaiians comprise approx 36% of the population in northeast Maui (22% island wide). Access to resources on undeveloped land are essential for traditional and customary practices such as gathering plant materials for lei making or medicinal practices, and shoreline/stream fishing.



From top left, clockwise: Native monk seal, goby, shearwater, and hala tree (Photo by DOFAW)

- HHCR contains intact groves of indigenous hala (Pandanus tree) that are a large component of coastal forests. Hala is a significant cultural resource, used for weaving, cordage, thatching, and medicine, that has lost much of its former range due to forest conversion.
- HISTORICAL: The precursor to the Hana Highway was a trail constructed by the Chief of Maui in the 1500s that is believed to have encircled the entire island. Remnants of this historic east Maui trail, also known as the "Piilani Trail", still exist on HHCR and will be protected and restored.
- Hana Highway is listed on the National Register of Historic Places and was designated a Millennium Legacy Trail by President Clinton in 2002, as it reflects the unique spirit of east Maui.

## Threatened

- LACK OF PROTECTION: HHCR is zoned agricultural, allowing for subdivision into roughly 110 lots ranging from 2-40 acres with 2 dwellings/lot allowed. Intensive farming, land and forest clearing, homes with large grassy lawns, and infrastructure are allowed without approval, permit, or harvest plan.
- LANDOWNER CIRCUMSTANCE: The landowner, a commercial real estate and agriculture company, is a major private landowner in the state. They have indicated they are supportive of a state purchase but have expressed their intention to sell on a short timeline.
- The landowner's current objective is to strategically monetize non-core assets including agricultural and conservation forest land. In 2018, they sold 41,000 acres on Maui to a joint farming venture; this was one of the largest land sales in state history.
- ABILITY TO DEVELOP: HHCR is attractive for development due to its agricultural zoning, accessibility (only 20 miles from Kahului, Maui's largest town with an int'l airport and commercial district), gentle slopes on 70% of the property, serene views and electrical infrastructure along the highway.
- ADJACENT LAND USE: The population on Maui grew 58% between 1990 and 2010 and is expected to increase 35% by 2030. This increase is putting substantial pressure on agriculture and forested land west of HHCR that are being converted to urban development.
- Residential sprawl in the region is marching relentlessly eastward. The Huelo area, located just half a mile west of HHCR, consists of approx. 100 ag zoned lots (2-30 ac). The 100-acre Kailua Country Estates subdivision (KCE), located 0.3 mi. south of HHCR, has approx. 20 ag zoned lots.
- In the past 5 years, over 30 homes have sold in Huelo and KCE. Primarily high-end homes, vacation rentals, and eco-retreats, nearly half sold for over \$800k (avg 2,700 sq. ft). The largest home sold for \$4M at 7,800 sq. ft. Without protection, development of HHCR is virtually certain.
- In 2019, Maui saw an all-time high of 3M visitors, up approx. 10% from 2017. To accommodate the increase, 10 new or expanded hotels are currently being proposed. The increasing number of visitors who drive Hana Highway are straining the region's limited existing resources and accommodations.



*The forested plateau at nearby Huelo Point has been cleared for homes and lawns (Photo by Redfin)*

## Strategic

- PLAN: HHCR contains critical habitat for 2 endangered coastal plant species (Cyperus pennatiflorus and Vigna owahuensis) identified in the US Fish and Wildlife Service Recovery Plan for Multi-Island Plants. Potential recovery strategies at HHCR include surveys, enhancing wild populations, establishing new populations, construction of exclosures, and maintaining genetic stock.
- Acquisition of HHCR supports the recommended action of conserving monk seal habitat identified in the National Oceanic and Atmospheric Administration Hawaiian Monk Seal Recovery Plan and Hawaii State Wildlife Action Plan (SWAP). HHCR will support monk seal habitat conservation through protection and management of upland forest and streams that directly affect the health of near-shore waters.

- HHCR supports the Hawaii Forest Action Plan's (FAP) strategies of preserving water quality of streams and nearshore waters, protecting areas for nature-based recreation, and mitigating forest loss. The FAP also advocates for the use of the traditional Hawaiian land management system in implementing FAP strategies. This system acknowledges the connection of upland forests to the sea.
- HHCR supports the SWAP's highest priority objective to protect, manage, and restore native species/habitats, including seabirds and the hoary bat (both id'd as "species of greatest concern" in SWAP). HHCR is an ideal site for the Maui Seabird Recovery Project to manage and restore 10 seabird species protected by the Migratory Bird Treaty Act and will maintain suitable habitat for the hoary bat.
- The Hawaii Coastal and Estuarine Conservation Plan identifies HHCR as a priority area that supports the plan's priority of conserving coastal areas with ecological, recreational and cultural values. The state will manage HHCR to protect coastal forest habitat and flowing streams for endangered species, stream fauna, nesting seabirds, healthy near-shore waters, and public access.
- COMPLEMENT PROTECTED LANDS: HHCR is strategically located next to the state Koolau Forest Reserve (FR), which is part of a contiguous network of 108,000 acres of state, federal, and non-profit reserves that encompass most of Haleakala. HHCR will be designated as FR, adding to the landscape of managed areas that were created to conserve Maui's forest resources.
- HHCR will help achieve the goals of the East Maui Watershed Partnership (EMWP), a working relationship of 7 landowners established in 1991 to increase watershed protection through collaborative management. EMWP currently encompasses 100,000 acres of uplands forests on the northeast slope of Haleakala. As a FR, HHCR will enlarge EMWP by connecting to the lowland coastal forests.
- The majority of upland forests on Maui are protected, however most coastal areas such as HHCR are not, resulting in a large gap in protection of lowland forests and streams. The state is actively working to strengthen and expand the continuity of protection and management of Maui's forests from the summit to the sea through acquisition of HHCR and other private lands along the coast.
- In support of the state's initiative to expand and connect protected areas in the region, several unprotected state parcels ("Priority State Parcels" on map) and private lands to the east ("Potential FY23 FLP Tract") have been prioritized for addition to Koolau FR. The state also continues to engage in efforts to acquire private conservation zoned land upland of HHCR ("Potential FY24 FLP Tract").



Waikamoi stream ends as a waterfall that cascades from the cliffs into the sea (Photo by DOFAW)

## Readiness

Pre-Appraisal/Market Analysis	0
Easement or Fee Conditions	0
Non-Federal Cost Share Commitment	0
Signed Purchase Agreement	0
Title Search	0
Mineral Determination	0
Stewardship Plan (or equivalent)*	1
<b>Readiness Total Tally Score</b>	<b>1</b>

## Supporting Parties

U.S. Fish and Wildlife Service; Maui County Department of Water Supply; Maui Nui Seabird Recovery Project; and Maui Conservation Alliance.

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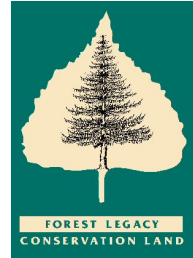
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# East Maui Rainforests Forest Legacy Project

- HHCR FY22 FLP Tract (1,047 Acres)
- Existing FLP Projects
- State Reserves
- Hana Highway
- Streams
- Piilani Trail
- Critical Habitat
- Watershed Partnerships
- Development/Housing Lots or Subdivision
- Haleakala National Park
- Priority State Parcels
- Private Reserves (Conservation Easements)
- Wainapanapa State Park
- Kahului Int'l Airport
- Towns
- Potential FY23 FLP Tract
- Potential FY24 FLP Tract

