# MA‘ALAEA MAUKA WILDFIRE PROTECTION AND RELATED MANAGEMENT

PROJECT BRIEF

DIVISION OF FORESTRY AND WILDLIFE

MAUI BRANCH

JANUARY 2022

The state and private lands that comprise the Pohakea Watershed of Ma‘alaea pose important challenges for resource managers and affected communities due to the high frequency of wildfires that threaten public safety, property, and natural resources, and high rates of erosion that affect near shore waters, damaging coral reef ecosystems that support recreational, commercial, and subsistence activities. Recent efforts by a broad coalition of conservation partners are making significant progress to plan and implement a suite of management actions to address those issues. Among those actions are efforts to acquire lands to be set aside and managed for their natural and cultural resource values. The purpose of this project brief is to describe management strategies and actions that are planned or underway for the Maalaea Mauka parcel, under consideration for acquisition by the county and conservation partners (TMK (2) 3-6-001:018).

## PROTECTION

The lands mauka of the subject parcel, which include the Pohakea Watershed (TMKs (2) 3-6-001:014 and 4-8-001:001), are currently unencumbered state lands that face challenges that are similar to those of the subject parcel. To begin to address those issues, as part of a broader collaborative effort with conservation partners, the Division is scoping set aside of the unencumbered lands to the forest reserve system. Set aside of those lands for inclusion in the West Maui Forest Reserve will place them under Chapter 13-104, Hawaii Administrative Rules, providing legal protections for their natural resource values. Designation as a forest reserve will also enhance stewardship and management opportunities by placing them under the management of the Division of Forestry and Wildlife (DOFAW) with budgeted support for resource management, including development and implementation of fire presuppression and suppression plans. In addition, we plan to include the lands in the Mauna Kahalawai Watershed Partnership, which will provide additional management support for watershed and fire management.

As part of the scoping for potential stewardship and management opportunities, the partners have proposed to transfer the subject parcel to DOFAW for the purpose of inclusion into the forest reserve system, extending the forest reserve protections of the Pohakea Watershed lands to the highway and enhancing opportunities for watershed management as part of the forest reserve and watershed partnership. Connectivity of subject parcel to the forest reserve and mauka lands would improve effectiveness to mitigate fire and erosion and facilitate improved management of watershed resources.

## PLANNING

Effective planning for conservation of natural resources is essential for successful efforts to conserve natural resources and prevent and suppress wildland fires. There are a number of

excellent land management plans available that address resource conservation and fire needs for lands that are adjacent to and near the subject parcel, for which management prescriptions are readily applicable to the subject parcel. Each is currently being implemented by agency, community, and landowner partners. A brief description of each follows.

### *Mauna Kahalawai Watershed Management Plan*

A comprehensive management plan to protect and preserve native ecosystems and fresh water supply for the 50,000-acre watershed lands that comprise Mauna Kahalawai. Includes detailed guidance for the control of feral ungulates and invasive species, monitoring threats and performance toward management objectives, and education and outreach to engage communities in natural resources protection.

### *Western Maui Community Wildfire Protection Plan*

A comprehensive plan for the prevention of wildfires on lands in west Maui. The plan includes assessment of threats, risks, and hazards, and provides an action plan for implementation of short and long term measures to prevent and suppress wildfires. This plan is required for eligibility for federally funded grant programs for fire prevention.

### *South Maui Community Wildfire Protection Plan*

Comprehensive plan for the prevention of wildfires on lands in south Maui, including the subject parcel. The plan includes assessment of threats, risks, and hazards, and provides an action plan for implementation of short and long term measures to prevent and suppress wild fires. This plan is required for eligibility for federally funded grant programs for fire prevention.

### *Pohakea Watershed Stormwater Management Plan*

Documentation of the sources, locations, and causes of erosion and sediment transport caused by surface water flow contributing to water quality degradation in downstream near shore and marine habitats. The plan provides source by source recommendations for actions needed to reduce erosion and impacts to marine habitats.

In addition to the plans noted above, following set aside of the lands mauka of the subject parcel to the forest reserve system (TMKs (2) 3-6-001:014, 4-8-001:001), DOFAW will develop a forest reserve management plan with community engagement for those areas. The subject parcel may be included in that plan if it becomes a part of that forest reserve, or if otherwise appropriate and desirable. The forest reserve management plan will incorporate relevant management guidance from the plans above as well as more specific management prescriptions, such as those discussed below.

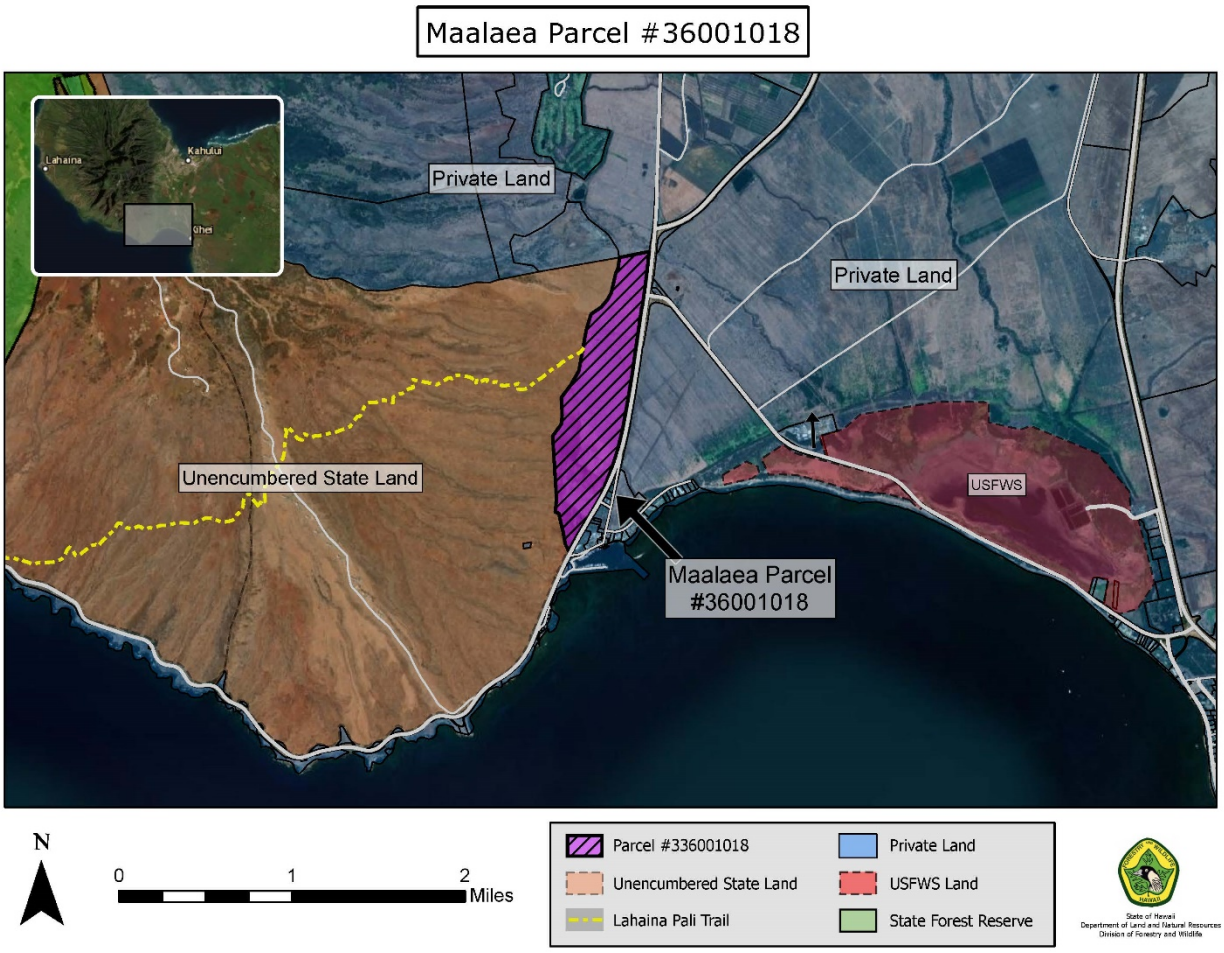


Figure 1. Overview of subject lands and adjacent landowners and features

## MANAGEMENT ACTIONS

In addition to the measures currently planned and underway pursuant to the above plans, DOFAW and partners are planning and implementing a number of management actions on the subject parcel to prevent and suppress wildfires, control and mitigate erosion, restore and reforest habitat, provide for compatible public use, and foster community engagement. A brief description of those management concepts is provided below.

### *FIRE BREAKS*

Effective fire breaks are an important line of defense for the prevention and suppression of wildland fires. DOFAW maintains approximately 18 miles of fire breaks in west Maui, including several miles of breaks on the mauka lands of the Pohakea Watershed. In 2020, we began a collaborative project with the Maui Nui Marine Resources Council to expand that work to the subject parcel, creating an additional 3.5 miles of fire breaks along both sides of the length of the parcel adjacent to the highway makai and to the state lands mauka. We are currently planning

to expand those firebreaks by adding three connecting cross breaks to the parcel, including a number of green breaks, for a total of 4.5 miles of breaks on the parcel.

### *WATER*

Purchase of the subject parcel by the county is expected to include purchase of three wells, a 750,000-gallon tank and easement for the delivery of water across adjacent lands. The inclusion of those water resources with the purchase provides significant benefits for the management of the subject lands, including habitat restoration and management that will enable the construction of green breaks, reforestation, and establishment of vegetation for the control of erosion that damages coral reef and near shore marine environments.

### *HABITAT MANAGEMENT*

The dry and windy conditions of the Maalaea area, coupled by the very flashy fuels present on the subject parcel and adjacent lands, are highly conducive to the rapid spread of wildfires. The purchase of the subject parcel, along with the water easements that are expected to be a part of the sale, will facilitate collaborative management opportunities to improve habitat and reduce fire hazards through revegetation with less fire prone species and by establishing green fire breaks that are not likely to burn in the event of a fire on adjacent lands. We expect that the subject parcel will provide opportunities for community and volunteer-based reforestation work that will enhance opportunities for compatible uses, including hiking and outdoor recreation.

### *IGNITION SOURCES*

Power lines and associated structures are suspected to be a source of ignition on lands adjacent to the subject parcel. DOFAW is working with Hawaiian Electric and partners to review potential source points and plan and implement measures to reduce ignition from those sources. Preliminary assessment of sources includes a series of powerlines and poles running mauka from the subject parcel. Following the assessment, we expect Hawaiian Electric to implement and maintain fire breaks at each suspected source to reduce the risk of ignition at those points.

### *EROSION CONTROL*

Erosion of soils on the subject parcels contributes to the deposit of large volumes of sediments into the ocean at Maalaea Bay during periods of heavy rain, threatening coral reef ecosystems and the economic, recreational, and subsistence activities that depend on those resources. Frequent fires exacerbate the problem by burning vegetation, rendering the soils bare and exposed to loss. Management activities to restore vegetation and reduce fires will assist in the control and mitigation of erosion. In addition, we plan to design and implement physical improvements to capture and redirect sedimentation to prevent it from reaching the ocean. Those improvements will require significant investment in planning, design, and capital improvement, and while those funds are not currently available to support those efforts, DOFAW

and community partners are actively seeking to secure those funds through state, federal, and private grant opportunities.

### *COMMUNITY ENGAGEMENT*

A number of community organizations are keenly interested in management of the biological and cultural resources of the subject parcel. Some are already involved in management of the subject parcel and other Mauna Kahalawai lands, and others are poised to actively participate. The Maalaea Village Association has been a leader in these efforts, as have the Maui Nui Marine Resources Council, Maui Cultural Lands, and others. DOFAW looks forward to expanding community partnerships to foster responsible stewardship and realize the community's vision for the lands at Ma'alaea and Pohakea Watershed.

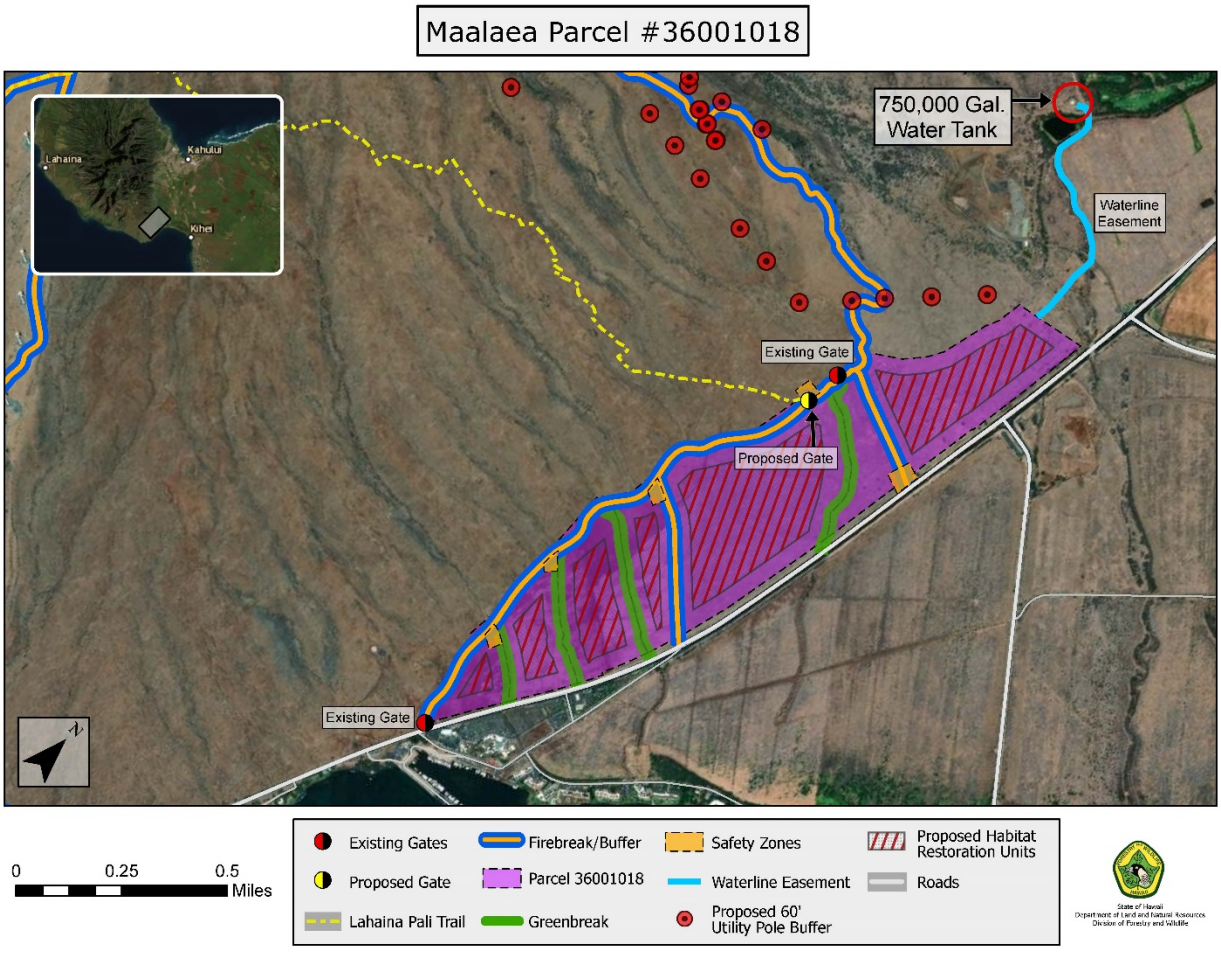


Figure 2. Proposed management concepts on and near the subject parcel that are expected to benefit wildfire reduction, erosion control, and near shore marine habitats.