

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



April 11, 2017

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Deputy Manager and Chief Engineer

Mr. Scott Glenn, Director
Office of Environmental Quality Control
State of Hawaii
Department of Health
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

Dear Mr. Glenn:

Subject: Haiku Stairs Study Environmental Impact Statement Preparation Notice

Under the provisions of Act 172 (12), the City and County of Honolulu Board of Water Supply (BWS) has determined at the outset that an environmental impact statement is required for the Haiku Stairs Study at Tax Map Key: 4-6-015: 011, in the Ko'olaupoko district on the island of O'ahu. A completed Bulletin Publication Form and a summary of the proposed action is enclosed (with a copy of the same sent via electronic mail to oeqc@doh.hawaii.gov).

Pursuant to the requirements of Section 11-200-3, Hawaii Administrative Rules (HAR), and Section 11-200-15, HAR, we request that you provide notice of this statutory determination in the next available periodic bulletin (Environmental Notice) for the public to submit comments to the BWS during a 30 day public comment period.

If you have any questions, please contact Scot Muraoka, Long Range Planning Branch of our Water Resources Division at 748-5940 or Haikustairseis@hbws.org.

Very truly yours,


for ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

Enclosures

cc: Department of Planning & Permitting, Designated Accepting Authority (by Office of the Mayor)
Group 70

RECEIVED
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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

AGENCY PUBLICATION FORM

| | |
|--|---|
| Project Name: | Ha'ikū Stairs Study |
| Project Short Name: | (please use no more than five succinct words; count not to include document status, e.g., EA) |
| HRS §343-5 Trigger(s): | Use of County lands, use of County funds, use of any land classified as conservation district by the state land use commission under Chapter 205. |
| Island(s): | O'ahu |
| Judicial District(s): | Ko'olaupoko |
| TMK(s): | (1) 4-6-015:011 |
| Permit(s)/Approval(s): | Conservation District Use Permit; Historic Preservation Review under HRS 6E-8; various site and building approvals for demolition work |
| Proposing/Determining Agency: | City and County of Honolulu Board of Water Supply |
| Contact Name, Email, Telephone, Address | Scot Muraoka, PE 630 South Beretania Street Honolulu, Hawai'i 96843 (808) 748-5940 haikustairseis@hbws.org |
| Accepting Authority: | City and County of Honolulu Department of Planning and Permitting |
| Contact Name, Email, Telephone, Address | Raymond Young, Planner 650 South King Street Honolulu, Hawai'i 96813 (808) 768-8049 haikustairseis@honolulu.gov |
| Consultant: | G70 |
| Contact Name, Email, Telephone, Address | Kawika McKeague, AICP 925 Bethel Street, 5th Floor, Honolulu, HI 96813 (808) 523-5866 haikustairs@g70.design |

Status (select one)☐ DEA-AFNSI**Submittal Requirements**

Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.

☐ FEA-FONSI

Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.

☐ FEA-EISPN

Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.

☒ Act 172-12 EISPN
("Direct to EIS")

Submit 1) the proposing agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.

☐ DEIS

Submit 1) a transmittal letter to the OEQC and to the accepting authority, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.

☐ FEIS

Submit 1) a transmittal letter to the OEQC and to the accepting authority, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.

- ☐ FEIS Acceptance Determination The accepting authority simultaneously transmits to both the OEQC and the proposing agency a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
- ☐ FEIS Statutory Acceptance Timely statutory acceptance of the FEIS under Section 343-5(c), HRS, is not applicable to agency actions.
- ☐ Supplemental EIS Determination The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.
- ☐ Withdrawal Identify the specific document(s) to withdraw and explain in the project summary section.
- ☐ Other Contact the OEQC if your action is not one of the above items.

Project Summary

Provide a description of the proposed action and purpose and need in 200 words or less.

The mission of the Honolulu Board of Water Supply (BWS) is to provide safe, dependable and affordable water now and into the future. The BWS is proposing to undertake the removal of Ha'ikū Stairs as its continued management and operations is not consistent with the BWS mission. The Ha'ikū Stairs are comprised of over 4,000 steps that extend from Ha'ikū Valley to the ridge line of the Ko'olau Range and connects to a trail in Moanalua Valley. The Ha'ikū Stairs in its current condition is a potential liability for BWS because of hikers who ignore posted no trespassing signs and continue to illegally climb Ha'ikū Stairs. Risk of injury, harm, or death is a concern. In 2015, BWS began to assess options to either remove the structure or potentially convey the land to another responsible entity to assume ownership.

This environmental review will formally assess the removal of Ha'ikū Stairs as the BWS' proposed action and evaluate a range of alternatives that include: no action, BWS ownership of land with provision of legal access; and the partial or complete transference of the land and stairs to a public or private entity. The environmental review will consider a range of associated range of short-term and long-term impacts to the physical and natural environment; archaeological and cultural resources; socioeconomic conditions; and compliance with applicable land use plans and policies with viable alternatives. Implementation of the proposed action is anticipated to generate only minimal long-term impacts to the natural and human environment beyond the demolition and removal period, but possibly not to extend more than a year after implementation.

Ha'ikū Stairs Study

TMK (1) 4-6-015:011

He'eia, Ko'olaupoko, O'ahu, Hawai'i



Environmental Impact Statement Preparation Notice

April 2017

Proposing Agency:



Honolulu Board of Water Supply
630 South Beretania Street
Honolulu, Hawai'i 96843

Prepared by:



925 Bethel Street, Fifth Floor
Honolulu, HI 96813

HONOLULU BOARD OF WATER SUPPLY HA'IKŪ STAIRS STUDY

He'eia, Ko'olaupoko, O'ahu, Hawai'i

TMK (1) 4-6-015:011

Environmental Impact Statement Preparation Notice

Proposing Agency:



Honolulu Board of Water Supply
630 South Beretania Street
Honolulu, Hawai'i 96843

Prepared By:



925 Bethel Street, 5th Floor
Honolulu, Hawai'i 96813

This environmental document is prepared pursuant to Hawai'i Revised Statutes, Chapter 343, Environmental Impact Statement Law and Chapter 11-200, Hawai'i Administrative Rules (Department of Health), "Environmental Impact Statement Rules"

April 2017

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HA'IKŪ STAIRS STUDY**

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Environmental Impact Statement Preparation Notice

1.0 INTRODUCTION

This document is prepared in accordance with the requirements of Hawai'i's Environmental Protection Act (HEPA), Chapter 343, Hawai'i Revised Statutes (HRS) as amended, and Chapter 11-200 Hawai'i Administrative Rules (HAR), which govern the State of Hawai'i Office of Environmental Quality Control (OEQC). Under HRS §343-5, this project triggers a need for an environmental review as it includes the use of county lands or funds or involves the use of lands classified as conservation district.

1.1 ACT 172-2012 EISPN CONTENT REQUIREMENTS

Pursuant to Act 172 enacted in 2012, if an agency determines through its judgment and experience that an Environmental Impact Statement (EIS) is likely to be required, the agency may choose not to prepare an environmental assessment and instead prepare a Draft EIS that begins with the preparation of an Environmental Impact Statement Preparation Notice (EISPN). Per HEPA, the EISPN under Act 172 should at a minimum indicate in a concise manner the following:

1. Identification of applicant or proposing agency
2. Identification of accepting authority
3. Brief description of proposed action
4. Determination
5. Reasons supporting determination; and
6. Name, address, and phone number of contact person for further information

As the state agency that facilitates the HEPA process, OEQC advises that the following elements be addressed in an EISPN:

- A discussion of the purpose and need of the action and detail as to why the action is being proposed and what need it serves.
- A description of the receiving environment and at the affected site with some initial detail as to whether or not it is considered a sensitive area or environment. The description should include any anticipated impacts of the receiving environment to be assessed in the EIS.
- A description of the planning horizon for the action and identified actions that are projected in the reasonably foreseeable future.
- A brief description of alternatives to the proposed action that are being considered.
- An identification of parties consulted or to be consulted that may be affected by the proposed action both directly and indirectly, including community members.
- An identification of agencies that will issue discretionary or ministerial approvals in the future for the action.
- An identification of elements of the significance criteria that influenced the decision of an agency to proceed directly to the EIS preparation. The assessment of significance is integral to the environmental review process.

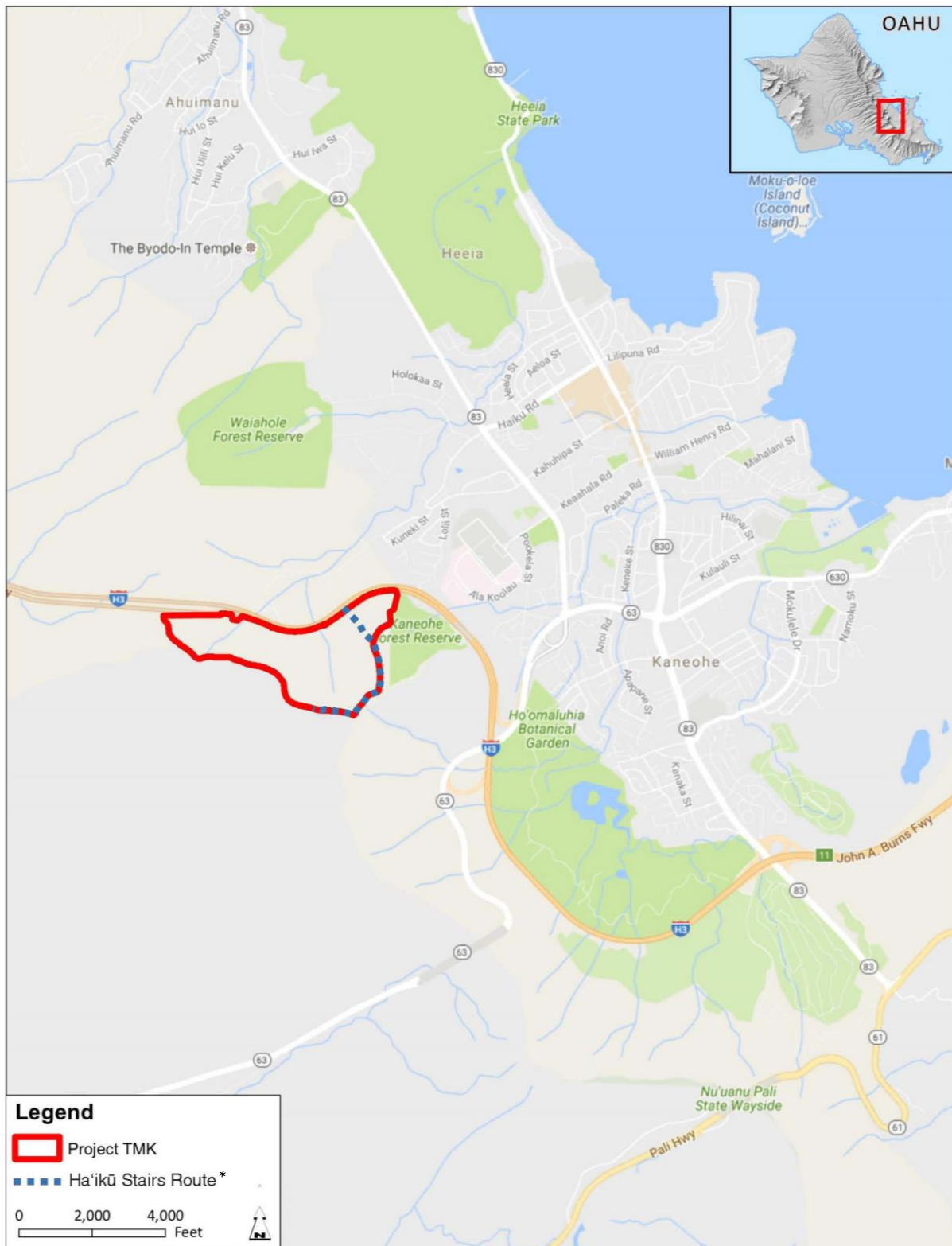
Environmental Impact Statement Preparation Notice

1.2 PROJECT INFORMATION SUMMARY

| | |
|--|---|
| Proposing Agency: | City and County of Honolulu (CCH) Board of Water Supply (BWS) 630 South Beretania Street Honolulu, Hawai'i 96843 Contact: Scot Muraoka, P.E. Water Resources Division, Long-Range Planning Branch, Phone: (808) 748-5940, Email: haikustairseis@hbws.org |
| Accepting Authority: | Authorized Mayor's Representative, CCH Department of Planning and Permitting 650 South King Street Honolulu, Hawai'i, 96813 Contact: Raymond Young Phone: (808) 768-8049 Email: haikustairseis@honolulu.gov |
| Name of Action: | Ha'ikū Stairs Study |
| Planning/Environmental Consultant: | Group 70 International, Inc. 925 Bethel Street, 5 th Floor Honolulu, Hawai'i 96813 Contact: Kawika McKeague, AICP Phone: (808) 523-5866, Email: haikustairs@g70.design |
| Project Location: | Ha'ikū, He'eia, Ko'olaupoko, O'ahu, Hawai'i (Figure 1& 2) |
| Tax Map Key (TMK): | (1) 4-6-015:011 (Figure 3) |
| Land Area: | 224.756 acres |
| State Land Use District: | Conservation District (Figure 4) |
| Conservation Subzone: | Protective Subzone |
| City and County of Honolulu: | |
| Zoning (Land Use Ordinance) | P-1, Restricted Preservation (Figure 5) |
| Ko'olau Poko Sustainable Communities Plan, as proposed under Bill 57 (2016) | Portion of parcel within proposed Ha'ikū Valley Cultural & Nature Preserve, under Parks and Preservation designations (Figure 6) |
| Special Management Area (SMA) | Project site is located outside of the SMA |
| Flood Management Zone | Flood Zone D (possible but undetermined flood hazard) |

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*A portion of the upper section of the stairs system may reside on non-BWS lands. A survey is on-going to verify BWS ownership.

Figure 1 Project Location Map

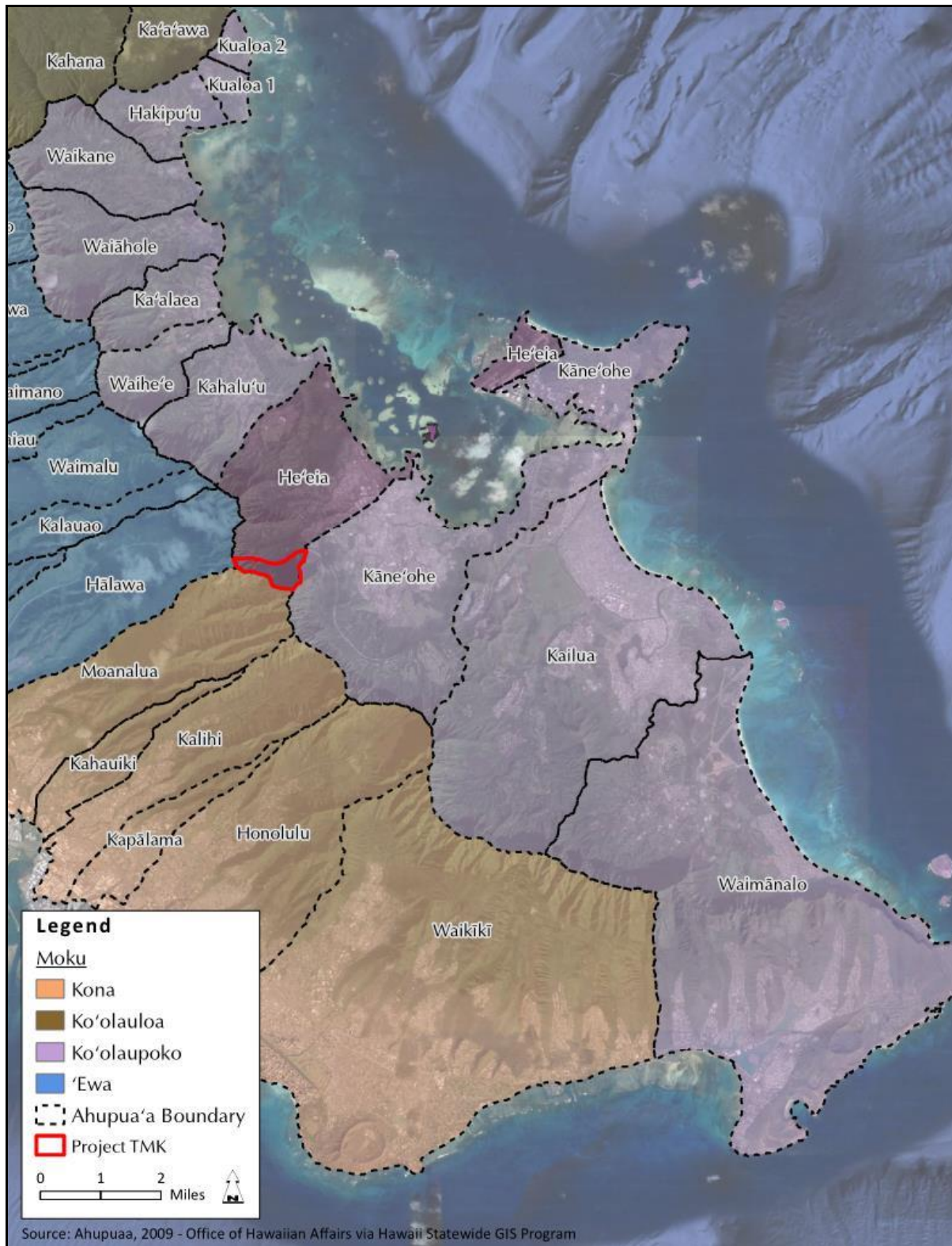
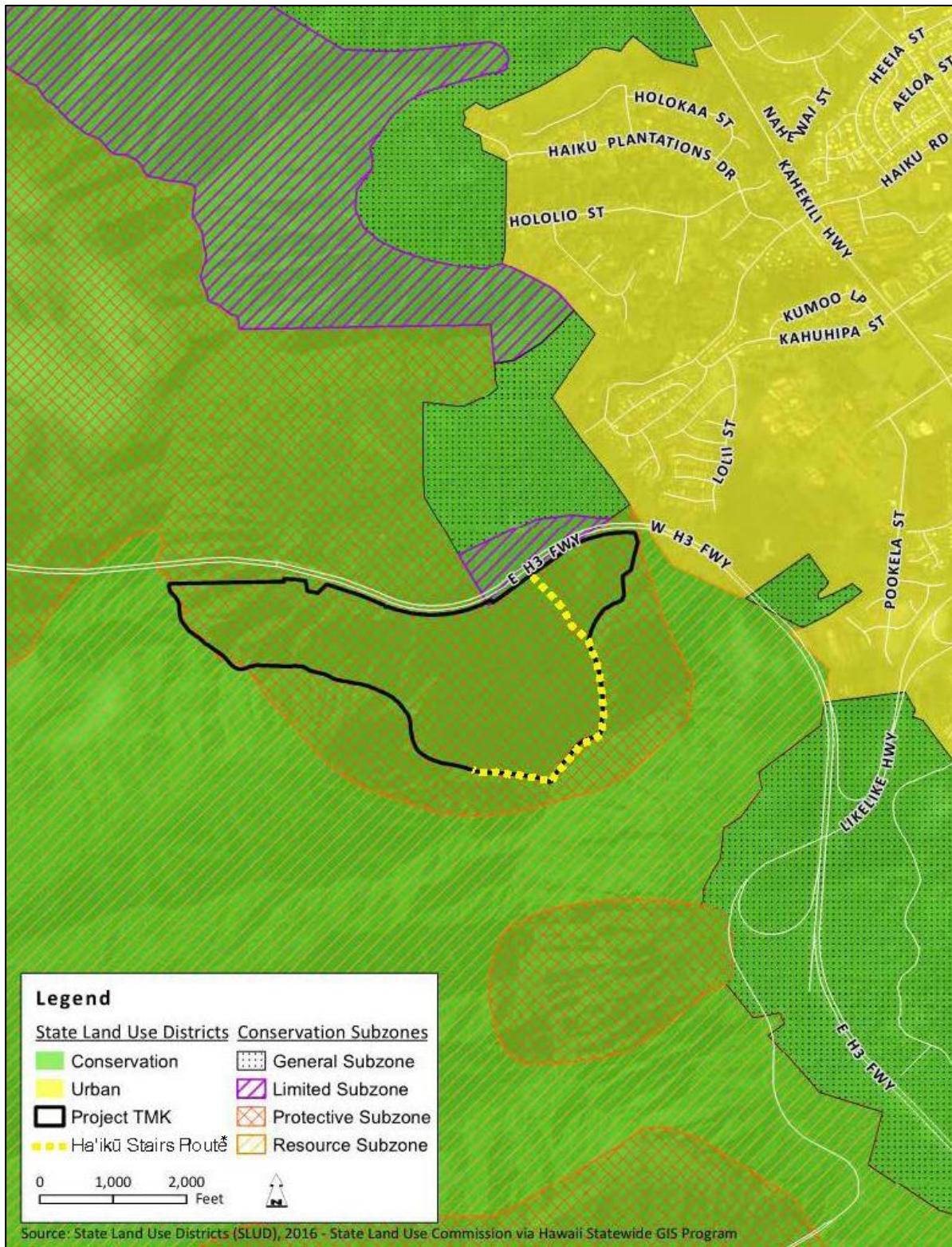


Figure 2 Moku and Ahupua'a Map



*A portion of the upper section of the stairs system may reside on non-BWS lands. A survey is on-going to verify BWS ownership.

Figure 3 Tax Map Key (TMK) (1) 4-6-015:011

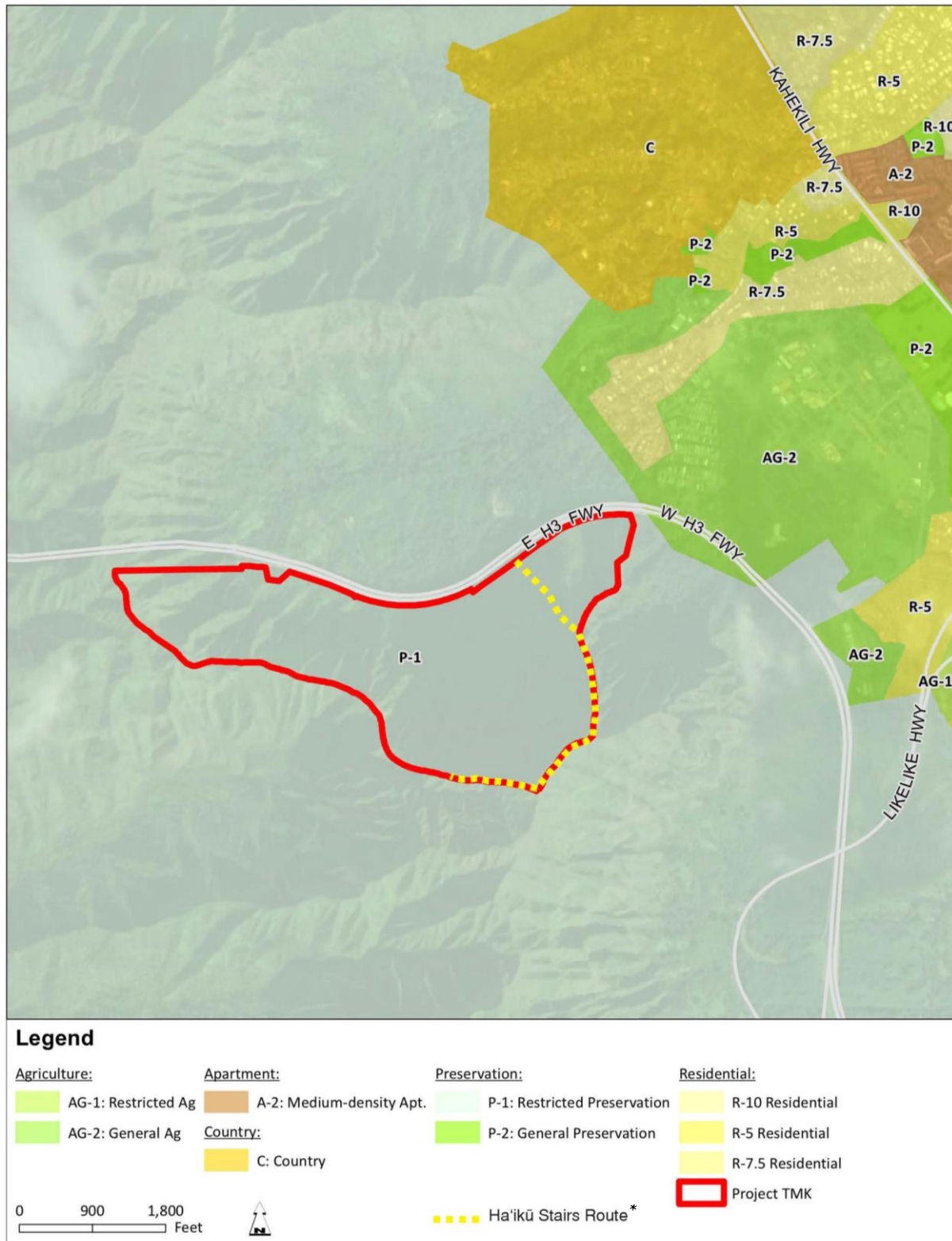


*A portion of the upper section of the stairs system may reside on non-BWS lands. A survey is on-going to verify BWS ownership.

Figure 4 State Land Use District Designations and Conservation District Subzone Map

HONOLULU BOARD OF WATER SUPPLY HA'IKŪ STAIRS STUDY

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*A portion of the upper section of the stairs system may reside on non-BWS lands. A survey is on-going to verify BWS ownership.

Figure 5 City and County of Honolulu, Land Use Ordinance, Zoning Map

HONOLULU BOARD OF WATER SUPPLY HA'IKŪ STAIRS STUDY

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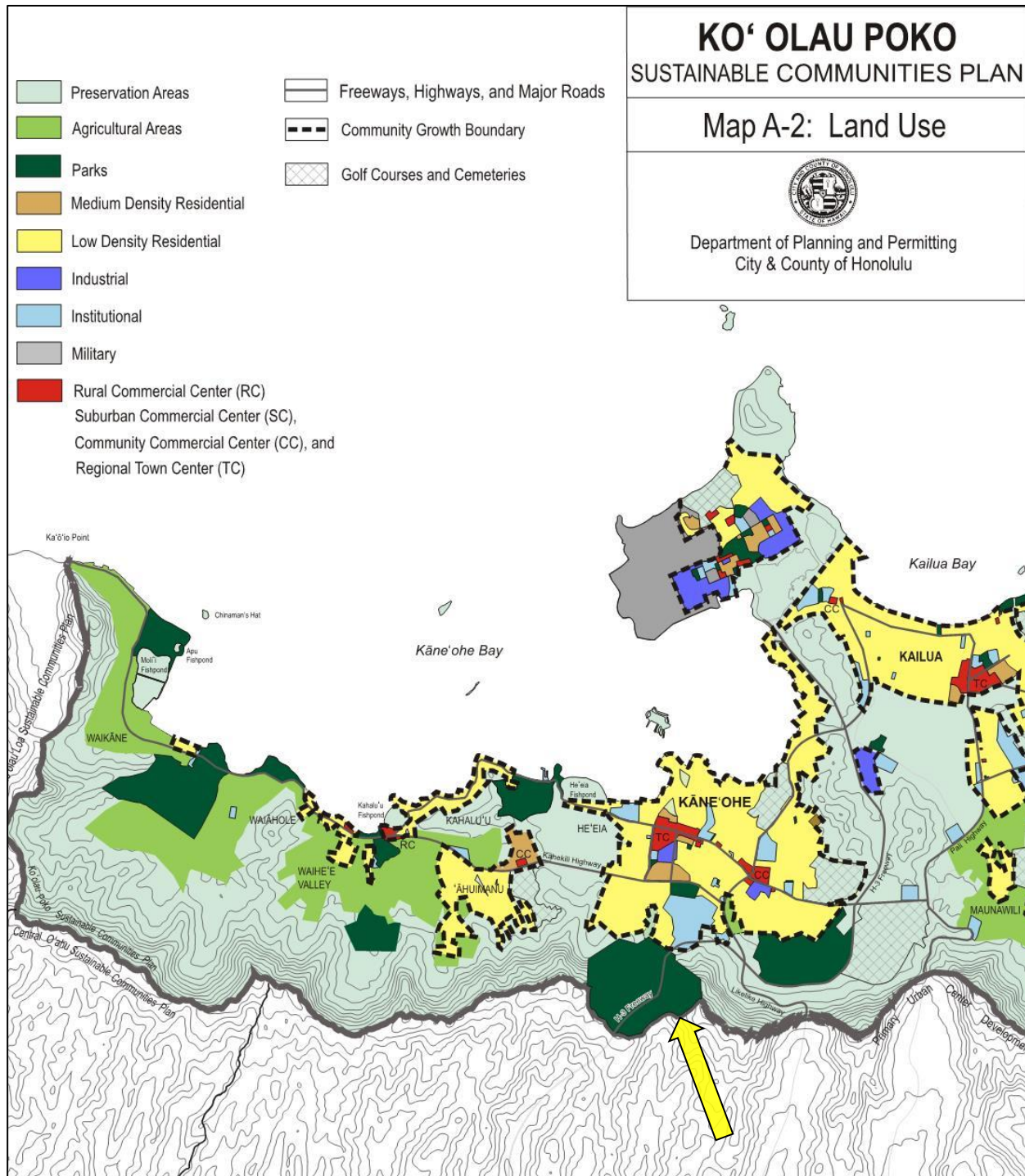


Figure 6 City and County of Honolulu, Land Use Ordinance, Zoning Map

2.0 PROPOSED ACTION & ALTERNATIVES

2.1 PROJECT AREA DESCRIPTION

The Ha'ikū Stairs are comprised of 4,000 steps that extend from the base of Ha'ikū Valley to and along the ridge line of the Ko'olau Range and connects to a trail in Moanalua Valley. The Haiku Stairs resides on TMK (1) 4-615:011, which is owned by BWS but also straddles the ridgelines of adjoining landowners, namely the City and County of Honolulu (non-BWS), the Department of Hawaiian Home Lands (DHHL) and the Department of Land and Natural Resources (DLNR). BWS is currently conducting a boundary survey to verify the location of the stairs to underlying properties. This survey will be included in the EIS.

The project parcel also lies adjacent to the Interstate H-3 Freeway, which is managed by the Department of Transportation, Highways Division. The parcel also is immediately adjacent to the Kāne'ōhe Forest Reserve and Honolulu Watershed Forest, both managed by DLNR. Other public lands in near proximity are managed by the Hawai'i Housing Finance & Development Corporation, the Hawai'i State Hospital, the University of Hawai'i Windward Community College, and the Kāne'ōhe District Park. Nearby large private landowners include Ko'olau Land Partners, Fathers of Sacred Hearts, the Queen Emma Land Company, and Kamehameha Schools (*Figure 7 to Figure 9*).

2.2 ORIGINS OF THE HA'IKŪ STAIRS AND PARCEL ACQUISITION

BWS acquired the vertical portion of the amphitheater shaped Ha'ikū Valley from Bishop Estate as a single lot through condemnation in 1958 for water development purposes. BWS developed the Ha'ikū Well on the Kahuku side of the valley and the construction of H-3 subsequently split it into two parcels, as TMK: 4-6-015:001 and 4-6-015:011, respectively.

Originally built of wood in the 1940s by the U.S. Navy to access radio communications antennae facilities along the ridgeline, Ha'ikū Stairs was replaced with stainless steel stair modules in the late 1950's. In 1975, the U.S. Coast Guard converted the facility into the Omega navigation station until it terminated operations in 1991. Since 1987, the Ha'ikū Stairs has remained closed to the general public due to vandalism and liability concerns. In 2005, the City refurbished the Ha'ikū Stairs with the intent of formally re-opening it for public use while it worked to secure legal access.

BWS began the process of transferring the parcel and the Ha'ikū Stairs to the City because water sources were already developed on the Kahuku side of the valley and the City Department of Parks and Recreation (DPR) was poised to take over operation and maintenance responsibilities. Unfortunately, the City Council did not approve the property transfer from BWS to DPR. Currently, BWS continues to pay for security to keep trespassers off the stairs and the Honolulu Police Department (HPD) and Honolulu Fire Department also continue to absorb the costs of trespassing enforcement and rescue operations. Further evaluation of available documents relative to the frequency of illegal hikers and the operational costs for either the rescue and recovery of or police response to trespassing activities by illegal hikers to State and County agencies will be included in the EIS.

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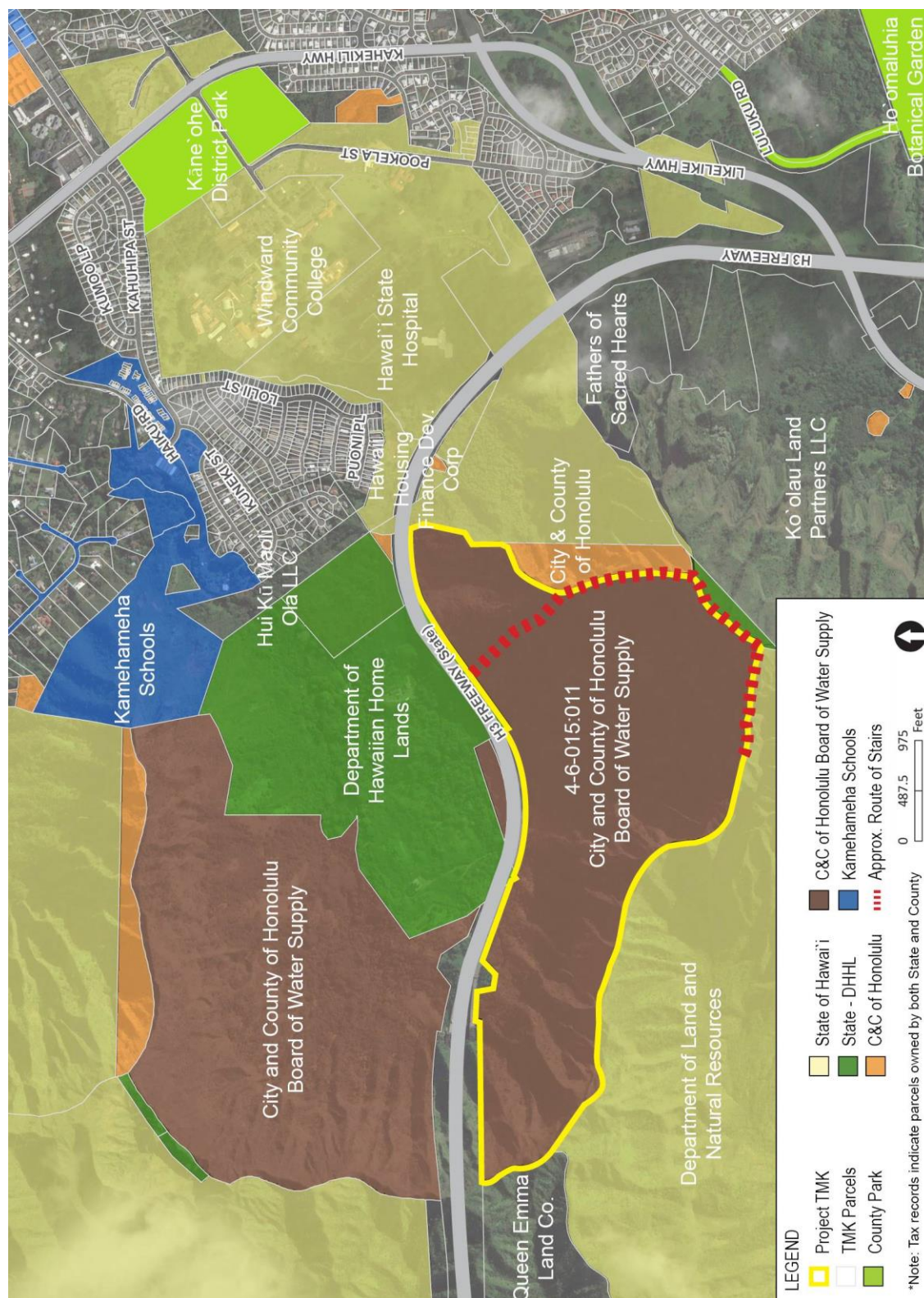


Figure 7 Land Ownership in Immediate Project Vicinity

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There are alternate routes to the stairs from the west listed on DLNR's Na Ala Hele trail website. The website states that the officially maintained portion of the Kulana'ahane trail begins at Moanalua Valley Park and ends at the twenty-fifth crossing. Anything beyond that crossing, including the Ko'olau summit with an overlook of Ha'ikū Valley, is not part of the officially maintained legal trail. The Kamananui Valley Road trail page on the website states the Ha'ikū Stairs are closed and access "is not allowed".

2.3 BWS MISSION & PROJECT PURPOSE AND NEED

The core mission of BWS is to provide safe, dependable, and affordable drinking water to its customers on O'ahu. Maintenance and operations of Ha'ikū Stairs does not support or serve the agency's core mission.

Although the Ha'ikū Stairs provides scenic vistas of the Ko'olau and Kāne'ohe Bay, in its current condition, the stairs are a liability for BWS and adjoining ridgeline landowners because of hikers who ignore posted no trespassing signs and continue to illegally climb Ha'ikū Stairs. Risk of injury, harm, or death is a legitimate concern of BWS as a landowner.

In 2015, BWS began to assess options to either remove the structure or potentially convey the land to another responsible entity to assume ownership of the parcel. The purpose and need of this environmental review will formally assess these options and their range of environmental impacts to then inform BWS and the community as to what the future of Ha'ikū Stairs should be.

2.4 PROPOSED ACTION AND ALTERNATIVES TO BE FURTHER CONSIDERED

The parcel on which Ha'ikū Stairs lies is currently protected as watershed lands under Revised Ordinances of Honolulu Section 40-3.1. Trespassing is a criminal offense and is punishable by fines and imprisonment. Currently, the BWS annually spends approximately \$160,000 of water rate funds for security at Ha'ikū Stairs that should otherwise be used to deliver water to its customers. As an example, in late April 2016, a swing was illegally installed along Ha'ikū Stairs, which presented potential life endangering consequences. In this case, BWS contracted the removal of the swing at a cost of \$23,000 to ratepayers. Additionally, neighbors that reside near unauthorized accesses to Ha'ikū Stairs have experienced years of property damage, some property theft, and in some cases, physical harm or threats of harm by trespassers crossing through their property. It is estimated that almost 4,000 people illegally access the stairs annually.

In 2014, Councilmember Ikaika Anderson assembled a small group of local community and civic leaders, residents, and landowners to discuss issues related directly to Ha'ikū Stairs and to develop a recommendation for their future use and disposition. The Ha'ikū Stairs Working Group evaluated three use scenarios that included: 1) maintain the status quo or "do nothing"; 2) remove the Ha'ikū Stairs; or 3) re-open Ha'ikū Stairs to the public. For each scenario, several pros and cons were discussed by the group relative to the following criteria:

Environmental Impact Statement Preparation Notice

- Is the proposed scenario compatible with residential neighborhood?
- Will existing trespassing and nuisance behavior to neighboring residences be reduced?
- What are the additional costs for maintenance and long-term operation for each scenario?
- Are long-term human impacts to the natural and cultural environment reduced and/or preserved?
- Are there educational, recreational, or training opportunities or accesses for scientific and cultural purposes available?
- Can revenue be generated and/or property values increased with scenario in-place?

Additionally, one of the major road blocks in any use scenario where the stairs are opened to the public, there must be a provision of a legal easement. In addition to assessing the use and disposition, the Ha'ikū Stairs Working Group had evaluated (10) possible access routes with three (3) likely access routes selected in its final report. Each of these access routes were evaluated and compared with the following criteria: a) vehicle access to stairs; b) availability of public parking; c) availability of restrooms; d) distance from neighboring residences; e) familiarity of route to general public; f) additional costs of maintenance and repair; f) number of landowner crossings. However, none of the three likely access routes were fully vetted at that time with affected landowners.

In developing reasonable alternatives for this EIS, BWS considered the past efforts of the Ha'ikū Stairs Working Group. First and foremost, the proposed action must eliminate liability and risk for BWS. Second, for any scenario that considers the continued use of the stairs, the proposed action must identify the means for an access easement to be provided and ensure those easement rights could be transferred to a responsible entity, if proper conditions are met. Thus, the EIS will assess the following:

- **Removal of Ha'ikū Stairs (Proposed Action).** This action would eliminate non-mission critical liability to BWS and adjoining ridgeline landowners and involves either the partial or total removal of the structure thereby ending future illegal accesses up the ridgeline. If the other two alternatives discussed below cannot be achieved, the BWS will have no choice but to remove the Ha'ikū Stairs.
- **Legal Access Alternative.** This alternative would require an access easement with government agency landowners to define and condition an acceptable hiking trail route, as well as address parking and support facilities. Further, the oversight and implementation of any improvements to or operations and maintenance of the hiking trail and structure would require a separate agreement with a qualified entity that would assume these responsibilities.

Of the three likely options evaluated by the Ha'ikū Stairs Working Group, the top preference was an access path that would start at the City's Kāne'ohe District Park, continue through the Kahuku side of Windward Community College and the DOH Hawai'i State Hospital, and end along the DOT H-3 Service Road to the base of the stairs. The EIS will further examine the feasibility of this option, including impediments faced in providing/promoting public access to hiking trails over private lands, watersheds, nature reserves, and Conservation District lands of O'ahu.

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- **Conveyance Alternative.** This scenario would result in the transfer of all or a portion of the underlying parcel from BWS to a more qualified government entity or even possibly to a private interest. Segments of the stairs on non-BWS owned lands may be retained by the underlying landowner. Prior to any conveyance, the provision of legal access would still have to be approved before the transfer of authority and ownership could occur. Additionally, the transfer of public lands to a qualified government entity or sale to a private interest may have specific conditions that would need to be addressed prior to implementation. The EIS will further examine the feasibility of this alternative.
- **No Action Alternative.** Under HEPA rules, this alternative must also be assessed in the EIS. In this case, Ha‘ikū Stairs would remain “as-is” with the land and structure remaining under BWS ownership. No improvements would be made, access would remain closed, and concerns of liability and risk would continue to remain. In 2014, the Ha‘ikū Stairs Working Group was unanimous in that maintaining the status quo and doing nothing was not an option.

2.5 PROJECT SCHEDULE & REQUIRED PERMITS AND APPROVALS

This environmental review process is anticipated to take at least a year to complete. The recommended alternative would then be pursued including specific design and permitting requirements, as project funding becomes available. This phase could take at least three years to complete. Actual project implementation could take an additional two years from that point to project completion. Overall, the anticipated timetable for the project is approximately 5-6 years.

Table 1 identifies the major reviews, permits and approvals, and approving authorities anticipated to be required for project implementation. A comprehensive list of the various site, building, construction and infrastructure approvals will be provided in the EIS.

| Environmental Review & Necessary Permits and Approvals for Removal | Reason for Permit or Approval | Approving Authorities |
|---|---|---|
| Final EIS Acceptance Chapter 343, HRS | <ul style="list-style-type: none"> • Use of County lands and funds • Use of any land classified as Conservation District by the State Land Use Commission under Chapter 205 | Office of the Mayor or Authorized Mayor’s Representative |
| Conservation District Use Permit | Work within Conservation District - Protective subzone | Department of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands |
| Historic Preservation Review Chapter 6E, HRS | Prior to any approval of a government project as defined under HRS 6E-8 | DLNR, State Historic Preservation Division (SHPD) |
| Site and Building Approvals | Demolition work for the project | City and County of Honolulu, Department of Planning and Permitting |

Table 1 Listing of Anticipated Permits and Approvals for the BWS Ha‘ikū Stairs Proposed Action

3.0 PROJECT SETTING

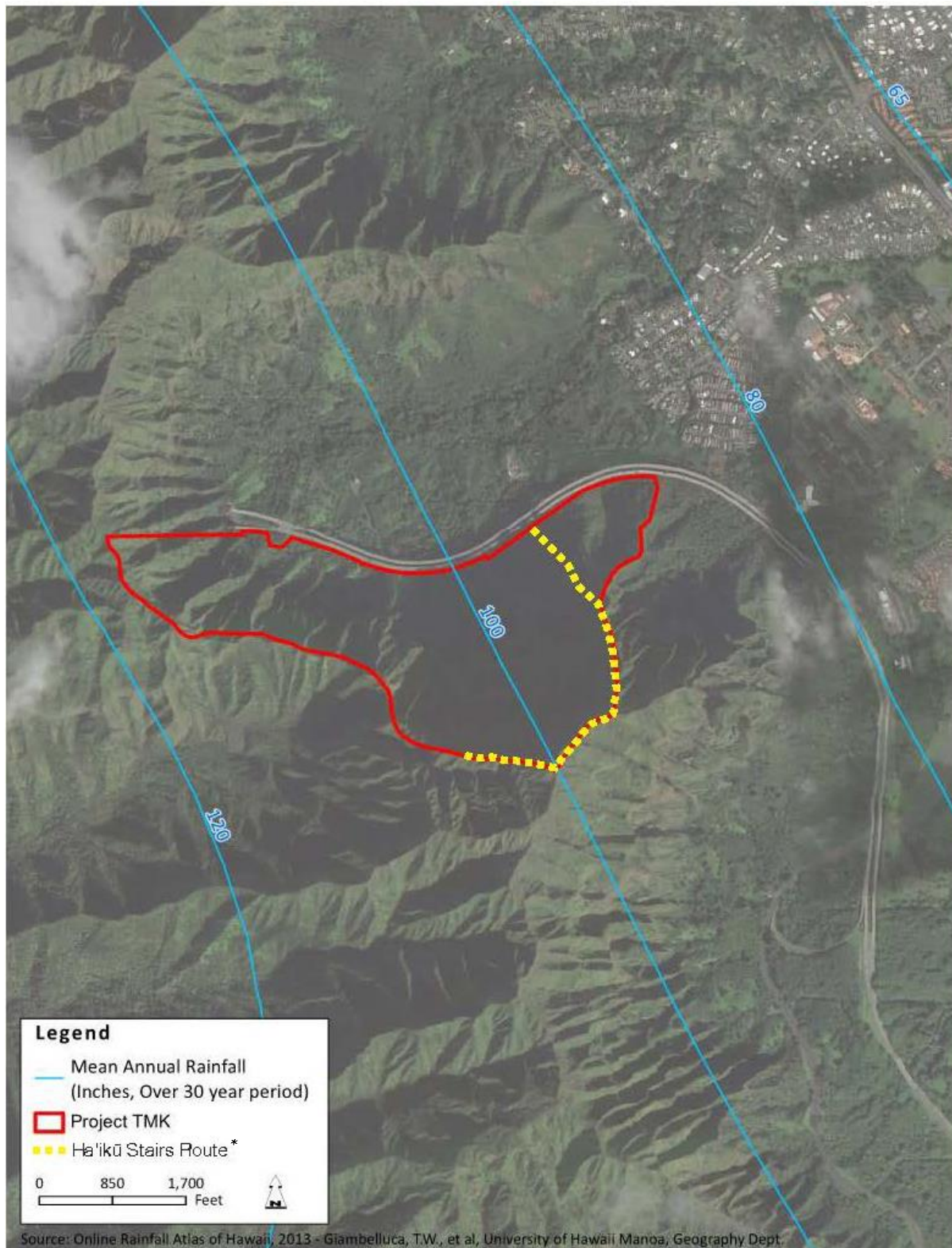
3.1 PHYSICAL AND NATURAL ENVIRONMENT

According to the BWS Ko'olau Poko Watershed Management Plan (2012), trade wind patterns have a significant effect on Windward O'ahu's climate. Trade winds blow from the northeast most of the year and bring warm moist air from the ocean onto the land. As the air is deflected up along the Ko'olau Mountains, the air cools, forms clouds, and releases rain onto the land below. The mountain regions of Windward O'ahu experience frequent rainfall and are often covered by clouds. Fog drip at the higher elevations also contributes to overall precipitation. The general climate of the coastal areas and central plains of Windward O'ahu have moderate to frequent rainfall. The highest annual average rainfall in the district (196.85 inches) occurs in the upper portions of the Waiāhole and Waikāne ahupua'a. According to the Rainfall Atlas of Hawaii (2011) published by the University of Hawai'i at Mānoa Department of Geography, the annual mean rainfall within the project area is between 80 to 120 inches (*Figure 10*).

Ko'olaupoko is the remnant of a deeply eroded Ko'olau shield volcano. The Ko'olau volcanic eruptions occurred approximately two million years ago and left basaltic lava flows that layered upon each other to form a gently sloping lava dome. These flows were fed by magma pouring out of fissures in the volcano. When molten rock solidifies in the narrow cracks that are under pressure, the rock that is created is much denser and much less permeable than the surrounding porous lava flows. These dense, usually vertical geological structures are known as volcanic dikes. Over the course of time, landslides and erosion caused by rain, surface water flow, wind, and fluctuations in sea level have shaped the volcanic dome into the valleys and gentle sloping coastal plains of the present day. Accordingly, soils within the project area are comprised of the following soil types: rock land (rRK), rock outcrop (rRO), rough mountainous land (rRT), Lolekaa silty clay, ranging in 15 to 25% slopes (LoD) and 40 to 70% slopes (LoF), and Alaeloa silty clay, 40 to 70% slopes (ALF). Runoff is very high for rRT and rRT soils (*Figure 11*). Issues of slope effect, soil stability, and erosion will be addressed in the EIS.

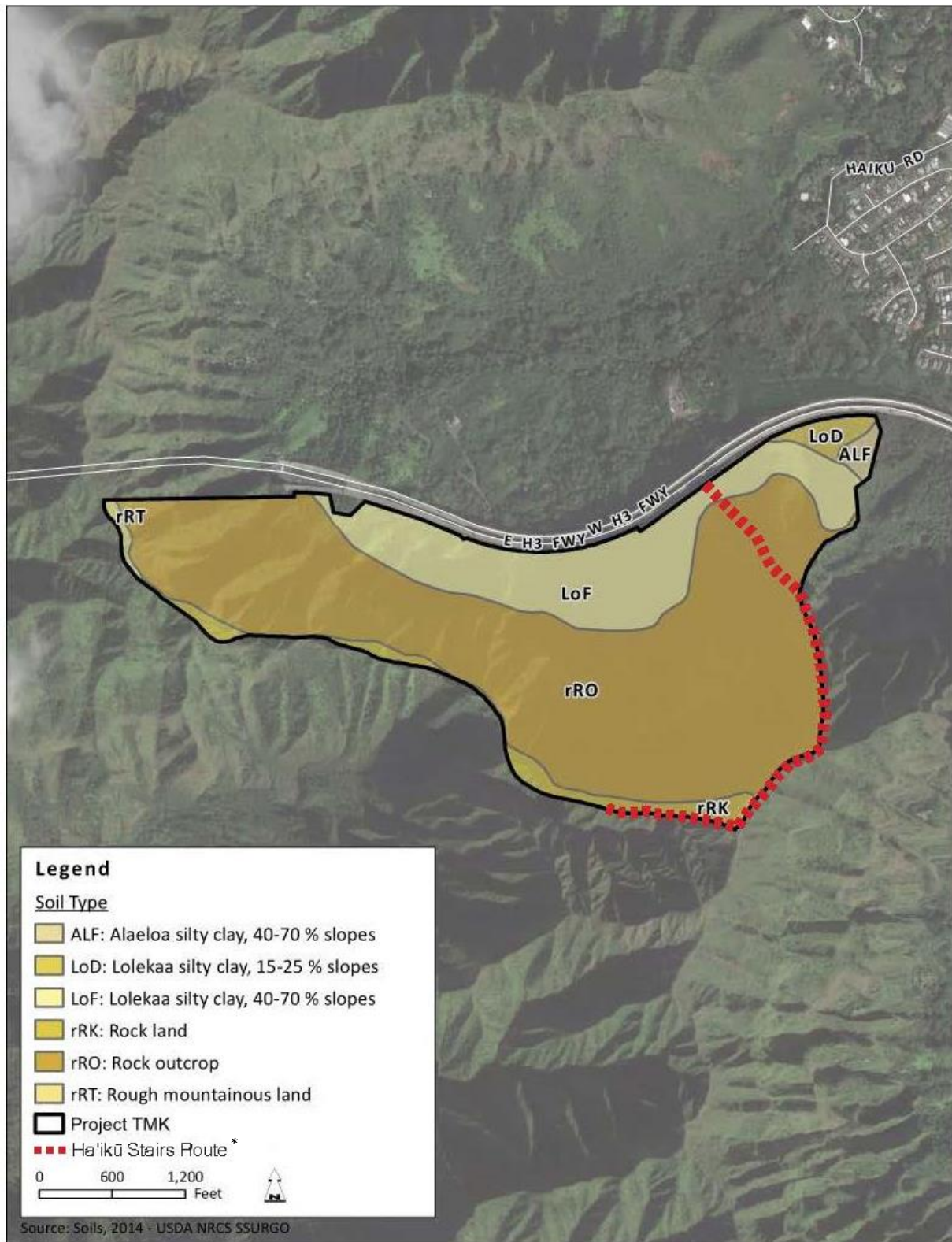
The EIS will also examine other pertinent features of the physical and natural environment. Existing data will be compiled from past environmental studies, and new studies will be completed to address the potential impacts of the proposed action as well as the alternatives considered within several discipline areas. The study disciplines include: climate (rainfall, flooding, and wind patterns); geology, topography, soils; and flora and fauna habitats. The combination of the infrastructure assessment and biological assessment will help determine the potential impacts of the alternatives to the physical and natural environment.

A biological assessment will be conducted to describe and identify area vegetation, creating an inventory of plant species, and identifying threatened and endangered plant species, as well as any species of concern. The area of investigation will be primarily limited to accessible areas of Ha'ikū Stairs and the preferred access route on governmental lands.



*A portion of the upper section of the stairs system may reside on non-BWS lands. A survey is on-going to verify BWS ownership.

Figure 8 Mean Annual Rainfall



*A portion of the upper section of the stairs system may reside on non-BWS lands. A survey is on-going to verify BWS ownership.

Figure 9 Soil Characteristics

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The biological assessment will document the field study findings and discuss potential project impacts and outline possible mitigation measures with recommendations for protection of critical habitat. The survey will also include a faunal study observing and documenting bird and mammal species that are known or identified to occur within the project area as well as critical habitat.

It is understood that other biological studies were completed for the area inclusive of the Ha'ikū Stairs by other community stakeholders. Request for these studies will be made, as appropriate to help establish a comparative analysis of species diversity, abundance, and any change in habitat threats.

3.2 HUMAN ENVIRONMENT

The EIS will evaluate other resource types that represent past and present human interaction and connectivity between the natural and built environments. The EIS will evaluate known impacts to archaeological, historic, and cultural resources; and effects to ambient noise and air quality; visual resources and significant viewsheds. Further, access paths and adequacy of the stairs infrastructure will be evaluated. Potential impacts of the proposed project to the human environment will be addressed, and appropriate mitigation measures will be proposed.

Archaeology and Historical Architecture

Under 6E-8, HRS, before the BWS commences any project which may affect historic property, aviation artifact, or a burial site, it must provide SHPD an opportunity for review of the effect of the proposed project on identified historic properties. Under HAR, Chapter 13-275 ("Rules Governing Procedures for Historic Preservation Review for Governmental Projects Covered Under Sections 6E-7 and 6E-8, HRS"), the historic preservation review process is designed to identify significant historic properties within a project area and then develop and execute plans to handle impacts to these properties in the public interest. The historic preservation review process includes four distinct steps, including: 1) identification of historic properties; 2) an evaluation of historical significance; 3) a determination of effect to significant historic properties; and 4) mitigation.

Under state law and rules, a "historic property" means "any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old". The historical significance of a property is further qualified in that it must possess the integrity of one of the following: location, design, setting, materials, workmanship, feeling, and association and must meet one of the five (5) established criterion:

- A) Be associated with events important to broad patterns of history;
- B) Be associated to the lives of persons important in our past;
- C) Embody the distinct characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic value;
- D) Have yielded or likely to yield information for research on prehistory; or
- E) Have an important value to Native Hawaiians or another ethnic group to associations with cultural practices once carried out or due to association of traditional beliefs or events.

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In consultation with SHPD, an Archaeological Inventory Survey (AIS) will be conducted in accordance with the regulatory requirements of the historic preservation review process. It is also anticipated that an Architectural Inventory Survey (ArcIS) will be undertaken to assess as to whether Ha'ikū Stairs qualifies 1) as a historic property that 2) possesses the integrity of historical significance. Accordingly, information in the ArcIS will be of sufficient quality to either complete a National Register of Historic Places nomination form or some equivalent to be agreed to by SHPD.

Infrastructure Assessment

The general structural conditions of Ha'ikū Stairs will be assessed and evaluated in an infrastructure assessment. The study will identify key areas of concern to rehabilitate the structure and will include preliminary design recommendations for both a removal scenario as well preliminary estimated costs for repair and rehabilitation of critical sections of the structure. For the Removal alternative, a range of approaches to 100% removal including foundational elements as well as a selective partial removal (cut and cap with foundations left in place) will be assessed. Project phasing and disposal methods for removed materials as well as required permitting approvals will be detailed.

Noise Assessment

A Noise Assessment will be conducted to identify existing sources and exposure thresholds of noise. The Noise Assessment will then identify potential short-term and long-term potential impacts related to noise generation. Short-term impacts may include noise generation impacts as a result of increased frequency and exposure to possible helicopter fly overs or other transport vehicles for construction-related activities to neighboring residences and nearby uses. Long-term impacts may include increased noise generated by hikers walking along the designated access route in certain proximities to neighboring residences. Assumptions on frequency of daily recreational hiker use will be based upon data gathered by comparisons of other popular hiking venues of a similar level of difficulty.

3.3 CULTURAL RESOURCES & TRADITIONAL CULTURAL PRACTICES

The environmental review must assess any adverse effects on cultural resources or traditional cultural practices. A Cultural Impact Assessment (CIA) will be prepared in accordance with regulatory requirements of Chapter 343, HRS, as amended by House Bill No. 2895, House Draft 1 of the State of Hawai'i Twentieth Legislature and approved as Act 50 (2000). The purpose of this Act is to "require that environmental impact statements include the disclosure of the effects of proposed actions on the cultural practices of the community and the State," specifically addressing the "effects on Hawai'i's culture, and traditional and customary rights." As appropriate, key State affiliates, including the Office of Hawaiian Affairs; SHPD; and the O'ahu Island Burial Council may also be consulted during the preparation of the CIA along with other key knowledgeable informants such as kupa'āina, kua'āina, kumu, loea, and other cultural practitioners, as well as area organizations such as the Ko'olaupoko Hawaiian Civic Club, Papahana Kuaola, Kāko'o 'Ōiwi, Ke Kula 'o Samuel Kamakau Charter School, Hakipu'u Learning Center, the University of Hawai'i-Windward Community College Hawaiian Studies Program, and Paepae o He'eia.

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3.4 SOCIOECONOMIC CONDITIONS

The EIS will examine socioeconomic conditions and trends and include an analysis of demographic, economic, and social data in He'eia and on O'ahu. Potential economic and fiscal impacts, including anticipated costs for either the removal or long-term improvements with their respective cost and multiplier effects will be outlined in the EIS.

3.5 LAND USE PLANS, POLICIES AND CONTROLS

The EIS will identify Federal, State, and City level land use plans, policies and controls that are applicable to the project. On the State level, the EIS will review the project's compliance with the Hawai'i State Plan; 2050 Sustainability Plan; State Functional Plans; State Land Use; historic preservation; the environmental review process and hazardous material, stormwater management, and water quality regulations. On the County level, the EIS will evaluate the consistency of the project with the City and County of Honolulu General Plan, City Ko'olau Poko Sustainable Communities Plan, Land Use Ordinance, and the BWS Ko'olau Poko Watershed Management Plan.

4.0 PROBABLE IMPACTS AND MITIGATIVE MEASURES

4.1 SHORT-TERM IMPACTS

Short term impacts would be primarily related to demolition/removal or repair/rehabilitation construction-related activities, depending on the alternative scenario. Potential short-term impacts to be evaluated in the EIS include: dust and erosion due to demolition and removal activities; parking and traffic generated due to staging and storage of construction equipment and trucks; potential direct and indirect economic benefits or losses, inclusive of expenditures and employment, and purchase of services; and increased noise due to construction equipment and vehicles. The EIS will present an analysis of the anticipated construction phase impacts and mitigation.

4.2 LONG-TERM IMPACTS

The alternatives are each anticipated to generate their own minimal long-term impacts to the natural and human environment.

The Removal alternative could have a brief period of long-term impacts beyond the demolition and removal period but not to extend more than a year after implementation. These brief long-term impacts to be examined in the EIS include effects on soil composition and run-off; associated water quality and drainage; exposure and risk to natural hazard areas including flooding and rockfall risk; wildlife biota and habitat; cultural and historic resources.

The Legal Access and Conveyance alternatives may present a range of brief long-term impacts similar to the Removal alternative but also induce longer impacts through the operation and maintenance lifecycle of the stairs. Additional considerations will be given to long term impacts on roadways and traffic, noise, air quality, wind conditions, visual resources, social and economic considerations, public infrastructure and public services. Material and economic resources will be irretrievably committed to the stairs removal. Potential impacts on the watershed due to hiking trails and hiker impacts on the environment, including but not limited to effects on wildlife, erosion, forest fires, and littering will be reviewed as a part of the EIS.

4.3 SIGNIFICANCE CRITERIA

In the EIS, BWS must consider the significant effect, defined under State law and rules as the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the state's environmental policies or long-term environmental goals and guidelines as established by law, or adversely affect the economic or social welfare. Accordingly, BWS will address the thirteen (13) significance criteria to determine if the range of alternatives may have a significant effect. Preliminarily, the following are being considered.

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- 1) *Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;*

It is anticipated that the alternatives will not involve any significant loss of natural or cultural resources. An AIS, ArcIS, and a Biological Survey will be conducted separately during the preparation of the EIS to assess the potential sensitivity and occurrence of such resources. Appropriate mitigation measures that are in accordance with applicable state laws and administrative rules will be outlined should such resources be discovered.

- 2) *Curtails the range of beneficial uses of the environment;*

Each of the alternatives may provide a range of beneficial uses as well as consequences to the natural environment. The EIS will assess what activities best protect the natural environment from potential irreversible ecological damage as a result of continued human presence and impact as well as ensure the safety and protection of the public from harm or endangerment.

- 3) *Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;*

The purpose of Chapter 344, HRS, is “to establish a state policy which encourages productive and enjoyable harmony between man and his environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, and enrich the understanding of the economic systems and natural resources important to the people of Hawaii”. It is anticipated that the alternatives are consistent and supportive of Chapter 344 policies, goals, and guidelines.

- 4) *Substantially affects the economic or social welfare of the community or State;*

It is anticipated the each of alternatives may provide both positive and negative economic and social welfare. The analysis of socioeconomic conditions in the EIS will further expand on this point. In the Removal alternative, monies currently allocated for security and other maintenance purposes could be reallocated to overall BWS water resource management activities. Comparatively, under the Legal Access or Conveyance scenarios, an appropriately managed strategy of the stairs could help establish Ha'ikū Stairs as a public asset but require additional funding to sustain operations during the lifecycle of project.

- 5) *Substantially affects public health;*

It is anticipated that the each of the alternatives will have a beneficial impact on public health. Although the removal of Ha'ikū Stairs could be considered as the removal of a recreational resource that has a public health benefit, there are certain risk factors to public health due to injury or death from accidents or reckless unauthorized uses, such as the illegal swing installation if the structure is left as-is and not appropriately maintained and managed.

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- 6) *Involves substantial secondary impacts, such as population changes or effects on public facilities;*

It is anticipated there are no substantial secondary impacts or effects on public facilities under the Removal alternative. For the Legal Access and Conveyance alternatives, the provision of an access easement could have some secondary but unsubstantial impacts due to the need of selective improvements along the Kāne'ōhe District Park and along the access route to the base of Ha'ikū Stairs.

- 7) *Involves a substantial degradation of environmental quality;*

Understanding the environmental quality of the nearby biological conditions may help to establish a baseline to identify a range of impacts by each of the alternatives. Restoring the surrounding environment to a more natural state by removing the stairs may reduce the potential damage that could occur through the introduction of invasive seed dispersion from shoes, clothing, and equipment of illegal trespassers. The Legal Access and Conveyance alternatives must consider how to develop and implement best management practices to either maintain or enhance the integrity and quality of the natural environment. The EIS will examine how each alternative could protect the natural environment during project implementation.

- 8) *Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;*

The EIS is a full disclosure of anticipated impacts of the alternatives. Associated actions that may require future entitlements or agency approval may be disclosed, once identified, to ensure that the overall cumulative effect of the project in relation to known and foreseeable actions has been fairly evaluated.

- 9) *Substantially affects a rare, threatened, or endangered species, or its habitat;*

The EIS and associated biological study will evaluate the potential impacts to the flora and fauna habitat surrounding the project area. The study will identify key resources and provide recommendations and best management practices to ensure the protection of the natural environment during project implementation.

- 10) *Detrimentially affects air or water quality or ambient noise levels;*

Air and water quality impacts will be evaluated as a part of the EIS. A noise impact assessment will be conducted during the preparation of the EIS to address sound generating activities during construction and propose mitigation measures, as appropriate.

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- 11) *Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;*

The project site is situated approximately 2.5 miles from the nearest shoreline. It is not located within the State Civil Defense tsunami zone. The project area is contained within the Federal Emergency Management Agency Zone D, which are defined as areas in which flood hazards are undetermined, but possible. Due to the elevation of the project area and remoteness from the shoreline, the project is unlikely to suffer damage from flood or tsunami natural hazards. For the alternatives, best management practices for sediment and erosion control would need to be defined.

- 12) *Substantially affects scenic vistas and viewplanes identified in county or state plans;*

It is anticipated that the alternatives could improve any vistas and view perspectives from key public corridors in the valley toward the upland slopes of the project area by removing what could be perceived as a visual blight and intrusion to the natural environment. Key viewplanes and scenic vistas in the Ko'olau Poko Sustainable Communities Plan will be assessed and evaluated.

- 13) *Requires substantial energy consumption.*

No substantial energy consumption is anticipated as a result of any alternative.

Environmental Impact Statement Preparation Notice**5.0 DETERMINATION AND FINDINGS**

The use of County lands or funds is the primary trigger that requires the completion of this environmental review. Accordingly, an EIS will be prepared to provide an analysis of the potential land use related impacts and evaluate corresponding mitigation measures for the proposed action and the alternatives considered. Under Chapter 343, HRS, the final authority to accept the EIS rests with the Office of the Mayor, or an authorized representative. It is anticipated that the final EIS will be accepted by the designated authority.

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**6.0 AGENCIES AND PARTIES CONSULTED
IN THE PREPARATION OF THE EISPN**

Consultation is a requirement under §11-200-15, HAR. Accordingly, the direct to EIS option requires comprehensive consultation prior to and during the preparation of the EIS. The BWS is committed to providing a transparent and accessible process for public comment through small-group and public meetings with various agencies, landowners, community organizations, and individuals with an interest in this project. The consultation process will be ongoing throughout the environmental review and formally commences with the distribution of this EISPN.

Information collected from these consultations will be incorporated into the EIS, wherein helping to identify important issues and provide guidance ranging from the scope of studies to the analysis and evaluation of impact.

Below is a list of agencies, organizations, and individuals that were contacted during the preparation of the EISPN, or have been identified to be consulted during the preparation of the EIS. Additional parties of interest may be identified during the review period of either the EISPN or EIS. The appropriate number of EISPN copies will be provided to agencies and libraries, as requested by OEQC

| Parties to Receive a Copy of the EISPN | |
|--|--|
| Federal Agencies | |
| Department of the Interior, U.S. Fish & Wildlife Service | |
| State of Hawai'i Agencies | |
| Department of Agriculture | |
| Department of Accounting & General Services | |
| Dept. of Business, Economic Development & Tourism, Office of Planning | |
| Department of Defense | |
| Department of Education | |
| Department of Hawaiian Home Lands | |
| Department of Health | |
| Behavioral Health Administration, Adult Mental Health Division, Hawai'i State Hospital | |
| Environmental Health Administration | |
| Office of Environmental Quality Control | |

HONOLULU BOARD OF WATER SUPPLY HA'IKŪ STAIRS STUDY

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|---|
| Department of Land and Natural Resources (DLNR) |
| DLNR, Commission on Water Resources Management |
| DLNR, Division of Forestry and Wildlife (DOFAW) |
| DLNR, DOFAW, Nā Ala Hele |
| DLNR, Historic Preservation Division |
| DLNR, Office of Conservation and Coastal Lands |
| Department of Transportation, Highways Division |
| Office of Hawaiian Affairs (Hālawā Luluku Interpretive Development) |
| University of Hawai'i |
| Environmental Center |
| Windward Community College Chancellor's Office |
| Windward Community College Hawaiian Studies Coordinator |
| City and County of Honolulu Departments |
| Department of Design and Construction |
| Department of Planning and Permitting |
| Department of Parks and Recreation |
| Honolulu Fire Department |
| Honolulu Police Department |
| Elected Officials |
| State Senator Jill N. Tokuda, District 24 |
| State House Representative Ken Ito, District 49 |
| Council District Representative Ikaika Anderson, District 3 |
| Media |
| Honolulu Star Advertiser |
| Libraries |
| Kāne'ōhe Public Library |
| State Main Library |
| Legislative Reference Bureau |

**HONOLULU BOARD OF WATER SUPPLY
HA'IKŪ STAIRS STUDY**

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| Community Interest Groups and Organizations |
|---|
| American Hiking Society |
| Anchor Church |
| Friends of Ha'ikū Stairs |
| Ha'ikū Village Neighborhood Security Watch Group (Mr. Kenneth Rose and Ms. Rae Leong) |
| Hakipu'u Learning Center Public Charter School |
| Hawaiian Trail & Mountain Club |
| Hui Kū Maoli Ola |
| Kahalu'u Neighborhood Board, No. 29 |
| Kailua Neighborhood Board, No. 31 |
| Kāko'o 'Ōiwi |
| Kamehameha Schools |
| Kāne'ohe Neighborhood Board, No. 30 |
| Ke Kula 'o Samuel M. Kamakau Charter School |
| Ko'olaupoko Hawaiian Civic Club |
| Ko'olau Foundation |
| Paepae o He'eia |
| Papahana Kuaola |
| Queen Emma Land Trust |
| Sierra Club of Hawai'i |