

# Waimānalo Federal Authority Survey Project





- Nationwide Federal land surveyor specializing in Native Trust Lands
- U.S. DOI, Bureau of Land Management (BLM) CERTIFIED SURVEYOR
- Surveys for Native Hawaiian, American Indian, and Alaska Native Trust lands
- Surveyed in Hawai'i for over a decade
- More than 40 years experience **in large acreage cadastral surveying**
- A native lands advocate in federal and state land policy

## **Certified Federal Surveyor**

**James M. Powers, PLS, RPLS, CFedS, CP**

- Certified Federal Authority Surveyor
- Founder and Owner / CEO of RPS
- Holds 32 state licenses, including Hawai'i, PLS
- Certified Federal Surveyor CFedS BLM
- Certified Photogrammetrist CP

## **PowerPath Solutions LLC**

**L. Diane Powers Stegall**

- Federal Contract Administrator
- Specializing in Federal compliance and project completion
- Extensive experience in Tribal lands, Fee-to-Trust, process compliance for BLM State and Federal offices





## **DUDEK**

- National, multidisciplinary land surveying, environmental, and engineering firm
- Projects in 50 states
- Ranked as one of the Top 125 U.S. Environmental Firms (Engineering News-Record, 2020)
- Dudek's Hawaii'i office has provided survey services across all Hawaiian islands for over 20 years
- Dudek's Hawaii'i office has been a consultant to the Department of Hawaiian Home Lands

## **Hawai'i-Based Partner**

### **Steve Hochart**

- Dudek Hawaii'i/National Mapping and Surveying Practice Leader
- Dudek Waimānalo Project Manager
- Brings more than two decades of mapping in Hawaii'i to the team

### **Stephen Paul PLS**

- Dudek Hawaii'i Senior Project Surveyor and CADD Production Manager
- Brings vast Hawaii'i survey experience to the team

**Project Team has worked with DHHL since 2015.**





***RPS/DUDEK Survey Team***  
*has delivered more than 300,000 acres of projects together - here in Hawai'i and across the continental United States.*

***Specializing in native lands  
reclamation and protection through  
boundary survey***



# Waimānalo Survey Scope of Work

**RPS/Dudek surveys assist the Department of the Interior by identifying and marking the boundary lines of the Waimānalo sites.**

This is accomplished by:

1. Researching all **title(s) of origin** and investigating all necessary land records to determine exact legal boundaries as first recorded.
2. Ascertaining the **actual location of HHL boundaries** on the ground by marking the exterior boundaries, boundaries of inholdings of the HHL parcels, and related rights-of-way. Noting any encroachments, exceptions, and abuses.
3. Providing the necessary data and information to **list each parcel in the BLM official land records system.**

**These Federal Authority boundaries will be defended by the United States and can be relied upon by Federal agencies and courts. They will support keeping Hawaiian Home Lands intact and the protection of, and investments in, the Hawaiian Home Lands Trust.**





## **Supporting Native American Self-Determination and Self-Governance**

- Assisting the United States with its trust responsibilities to protect Native American trust lands
- Assisting Native American communities in identifying, protecting, and stewarding their ancestral and trust lands
- Providing land survey training to Native American surveyors within their native homelands
- Providing intern opportunities to learn from, work with, and eventually become a Certified Federal Surveyor (CFedS) to conduct Federal Authority Surveys of native trust lands
- Supporting native land stewardship, capacity building, and community development

**RPS owner Mick Powers was invited to the inaugural CFedS class due to his long tenure in native trust land surveying and his interest in supporting the culture within native lands preservation thus preserving our nation's heritage . . . "embracing of heritage, culture and the legacy that native lands represent . . ."**



# CFedS - Certified Federal Surveyor Program

## What is it and what does it do?



### Purpose

The Department of the Interior was mandated to create a program to improve the quality of surveys on:

Native Federal Trust Lands

Expanded to include ALL Federal Boundaries

**Protecting Government and Native property rights is paramount.**



### Program

The CFedS Program is jointly administered by the BLM and the American Congress on Surveying and Mapping (ACSM).

CFedS is an intensive training program in boundary survey along or near **Federally mandated boundary lines.**



### Training

Complexities of the Public Land Survey System (PLSS) are rarely taught at universities. The criteria greatly impact the accuracy of trust land boundaries, affecting land control and the distribution of rights.

***Topics covered in CFedS licensing:***

1. Land Survey Law
2. **Federal Survey System (PLSS)**
3. **Federal Boundary Standards**
4. Records research and analysis
5. Trust Land Law

# Red Plains Surveying and Native Lands CFedS Surveying

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## Internship

Red Plains Surveying offers internships for Native Hawaiian, American Indian, and Alaska Native land surveyors to enter into the CFedS program through their doors in order to invest in the cultural stewardship of these ancestral homelands and their resources by their respective indigenous nations and communities.



## Training/Employment

Red Plains Surveying offers opportunities and seeks out qualified applicants to work with them on projects within Native lands.

Internships train Native surveyors in the CFedS program, supplies hours toward licensing, and provides employment for Native lands surveyors.



## Business Development

Developing a Native Hawaiian CFedS, Federal Surveyor, in Hawaii opens the door to the beginning of a Native Hawaiian business opportunity for land surveyors caring for their homelands.

Red Plains offers business mentorship for smaller new businesses to enter the Small Business Administration's 8(a) or similar mentorship programs.



# Dudek Public Outreach Program

- Coordinate with local school principals to schedule times for children K-8 to learn about the applications of Technology for Land Surveying.
- Mentoring Time Covers:
  - UAV Imagery Collection for their school.
  - Teach the students how 100s of images are combined into a single image of their campus.
  - Teach the students how the image can be used to map their campus and how it relates to Land Surveying.
- Waimānalo Specific:
  - Educate the students on the land surveying work being completed in their backyards and how it will benefit them and their community.



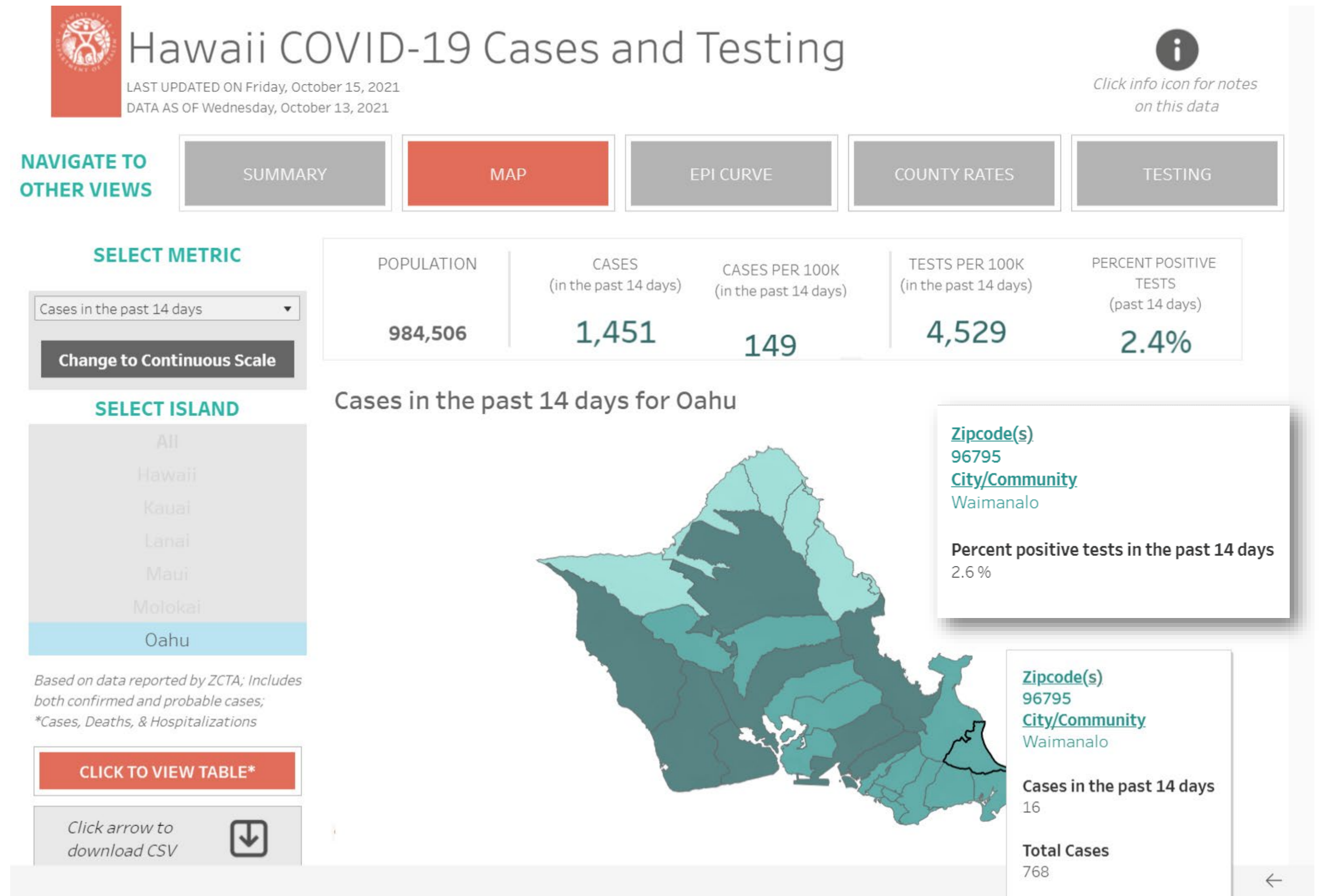
# Dudek Internship Program

- Dudek will coordinate with Kamehameha Schools and Kailua High School to offer an internship program for graduated or graduating seniors (ages 18 and older).
- Internship will cover:
  - Learning about field applications of land surveying.
  - Learning about office data processing of field collected land surveying data.
  - Working in the field and office with the Dudek Hawai'i team to complete the land surveying projects for DOI's Federal Survey of Hawaiian Home Lands.



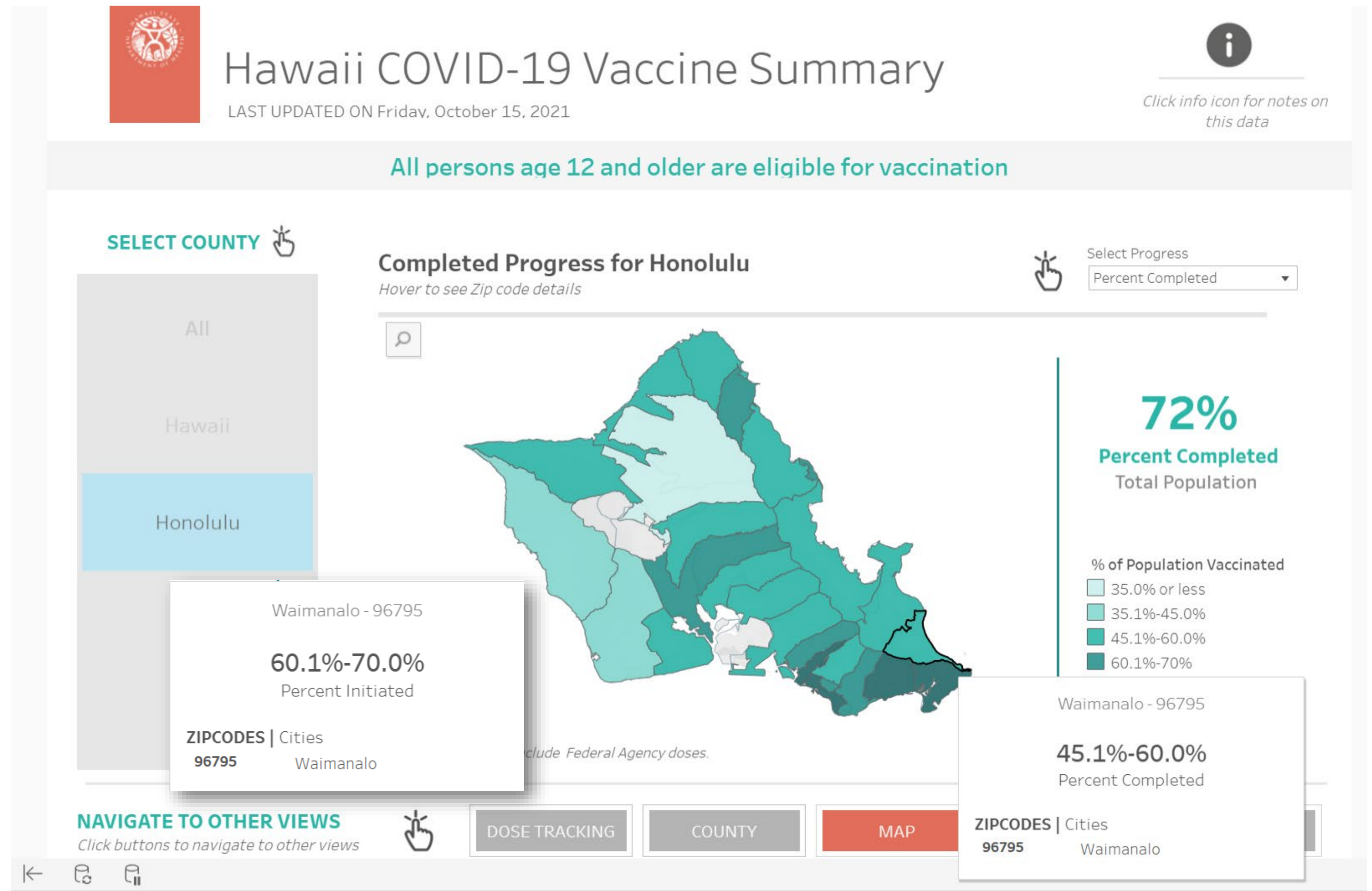
# COVID-19 Awareness

- The Survey Team continues to track the COVID-19 cases and positivity rate and is encouraged by the dropping numbers in the Waimānalo community.
- The Survey Team follows national and local news about current and projected trends.
- The Survey Team will continue to monitor the COVID-19 cases and positivity rate throughout the field survey work.



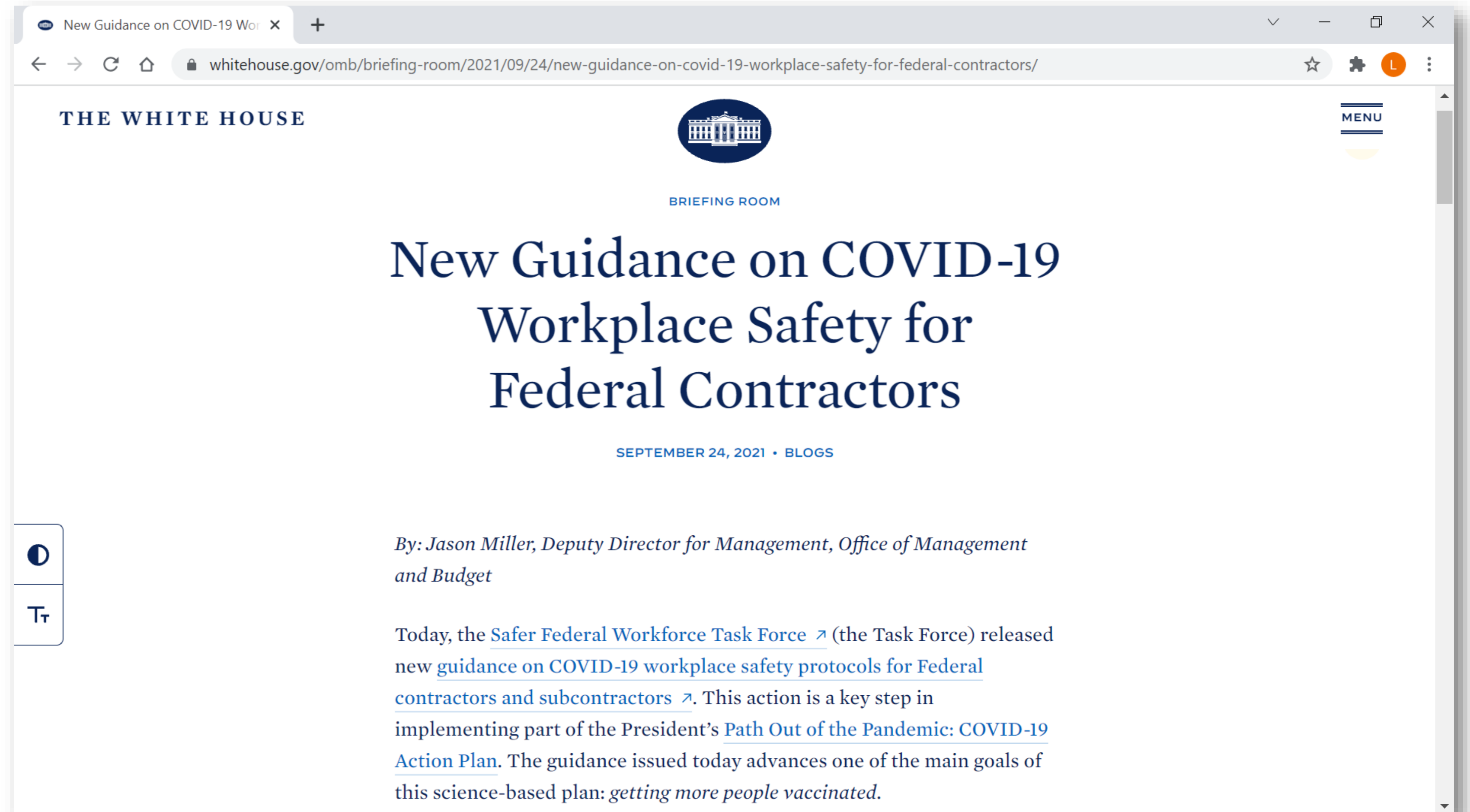
# COVID-19 and Community Awareness

- The Survey Team continues to track the community's vaccination rates as well.
- The Survey Team also tracks other community activities and concerns.



# Federal, State, and County COVID-19 Compliance

All Federal contractors working on DOI's Federal Survey of Hawaiian Home Lands projects are required to comply with Federal, State, and local government requirements and to follow Federal, State, and local government guidance and protocols.



The screenshot shows a web browser window with the URL [whitehouse.gov/omb/briefing-room/2021/09/24/new-guidance-on-covid-19-workplace-safety-for-federal-contractors/](https://whitehouse.gov/omb/briefing-room/2021/09/24/new-guidance-on-covid-19-workplace-safety-for-federal-contractors/). The page header includes "THE WHITE HOUSE" and the White House logo, with "BRIEFING ROOM" below it. The main title is "New Guidance on COVID-19 Workplace Safety for Federal Contractors" in a large, dark blue font. Below the title, it says "SEPTEMBER 24, 2021 • BLOGS". The author information is "By: Jason Miller, Deputy Director for Management, Office of Management and Budget". The main text begins with "Today, the [Safer Federal Workforce Task Force](#) (the Task Force) released new guidance on [COVID-19 workplace safety protocols for Federal contractors and subcontractors](#). This action is a key step in implementing part of the President's [Path Out of the Pandemic: COVID-19 Action Plan](#). The guidance issued today advances one of the main goals of this science-based plan: *getting more people vaccinated.*"

# Survey Field Safety Protocols

Red Plains Surveying and Dudek are implementing protocols to keep the communities and their crews safe.

Staff and their vehicles will be identifiable in the field.

Field crews will have in their vehicles, among other things -

- Copy of Safety Plan which is regularly updated and reviewed;
- Complete a daily safety briefing in the field.
- Protocols for the discovery of iwi kūpuna and cultural resources.



# Notices and Parcel-Specific Rights of Entry

## Coordination with Land Managers and Adjoining Landowners

- Where Hawaiian Home Lands are general leased or licensed, Dudek will coordinate with the respective entity's land manager.
- Some boundaries will be surveyed from the adjoining land, thus Dudek will seek entry through the respective landowners and land managers, i.e., State Dept. of Transportation (HDOT), Dept. of Ag. (HDOA).

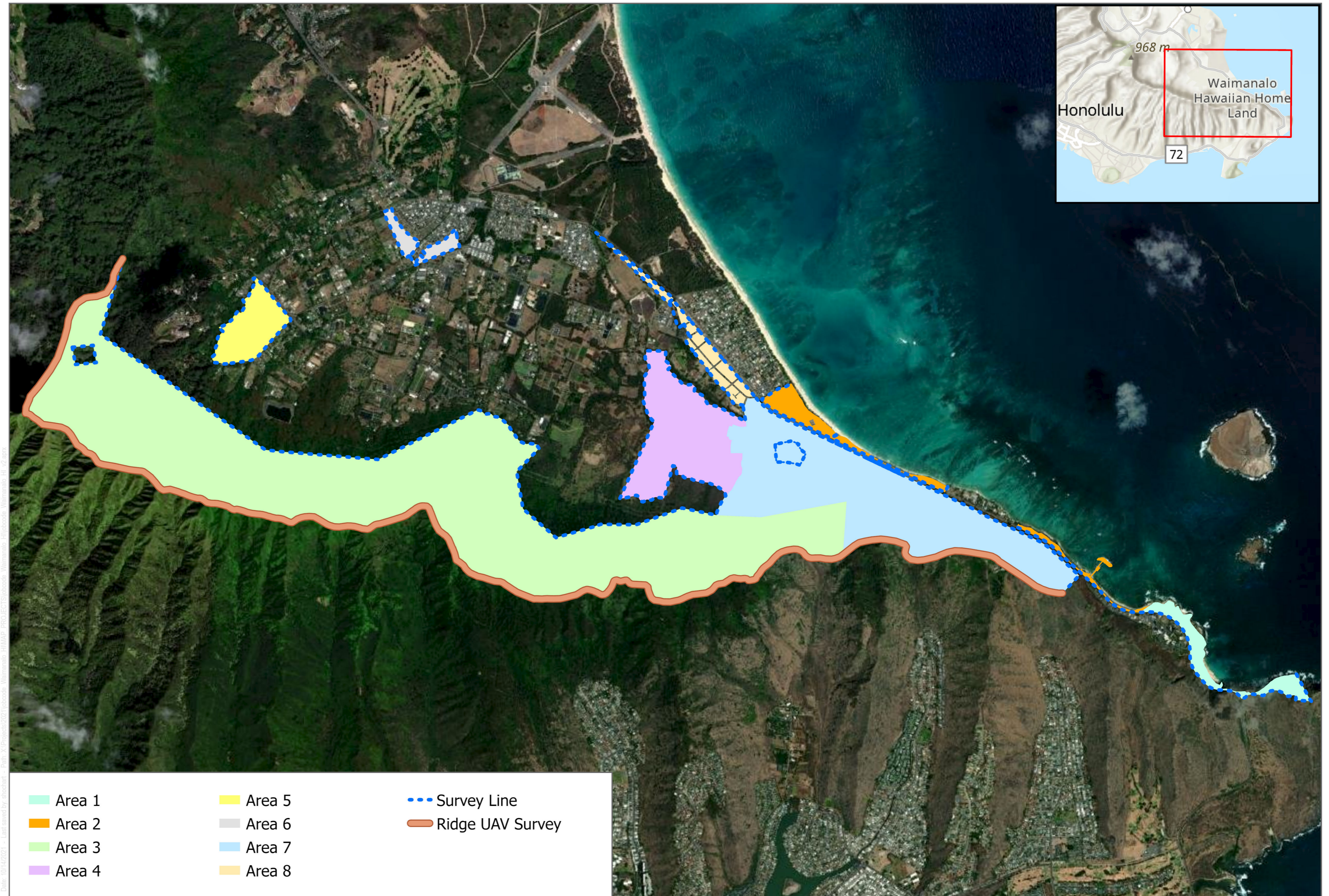
## 30-Day Notification to Lessees and Adjoining Landowners

- Dudek will mail notices and a request for right of entry to the individual homestead lots.



# Project Areas

93% of the project area for Waimānalo can be surveyed utilizing access through open space and agricultural land with no residential homestead lot access or interactions.



SOURCE: Dudek



Survey Line  
Waimānalo Hawaiian Homelands



# Area 1

Surveying the boundaries of the Makapu'u and Kaupō Beach Parks parcels will be executed in coordination with the HDOT and DHHL's licensee, the City and County of Honolulu, through its beach park managers.



SOURCE: Dudek



Survey Line  
Waimanalo Hawaiian Homelands

# Area 2

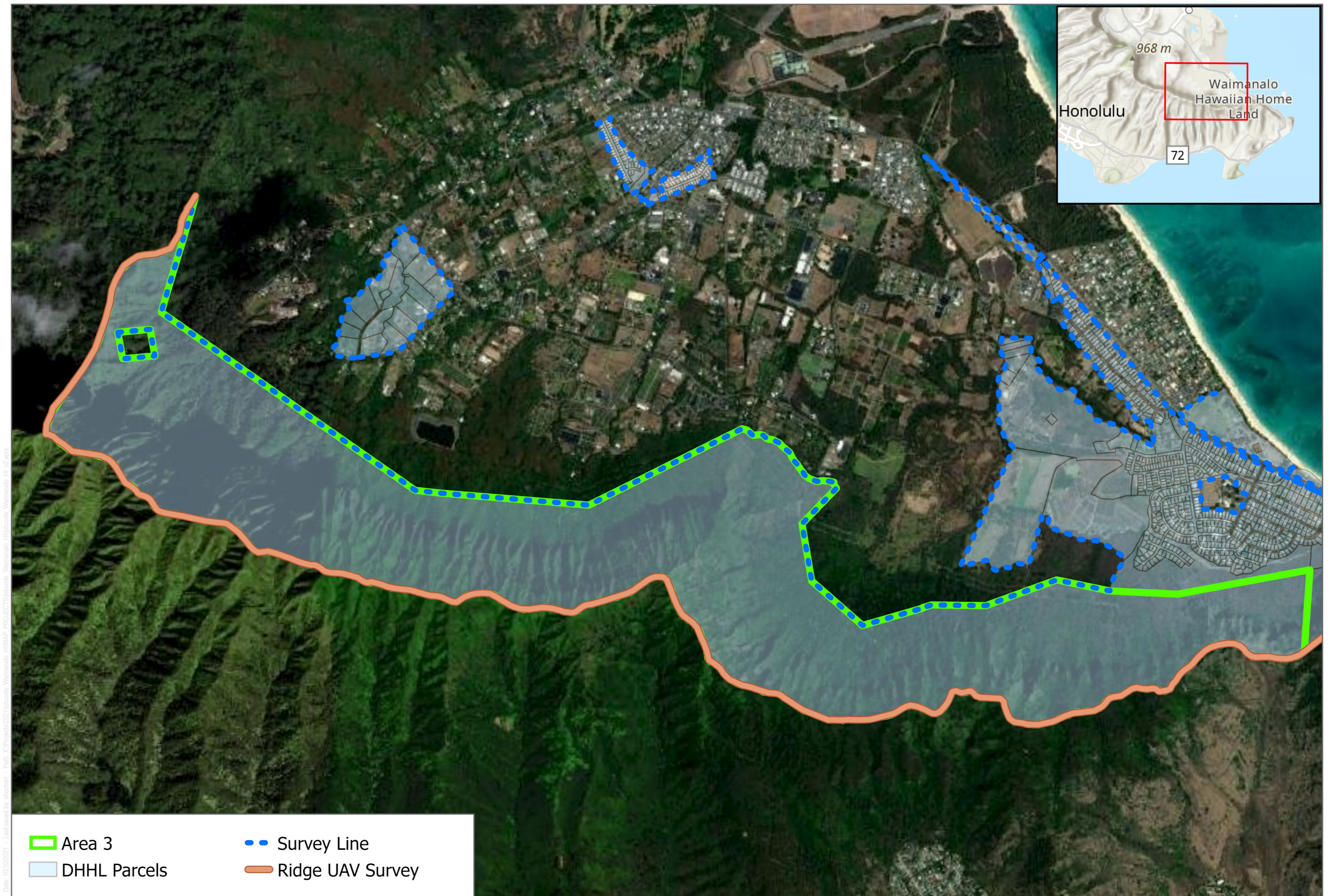
Surveying the boundaries of the Waimānalo and Kaiona Beach Parks parcels will be executed in coordination with the HDOT and DHHL's licensee, the City and County of Honolulu, through its beach park managers.



# Area 3

The boundary being surveyed in this area is between open spaces of Department of Land and Natural Resources (DLNR) land and agricultural leased lots under HDOA and a major parcel of Hawaiian Home Lands designated as part of the Waimānalo Forest Reserve which is managed by DLNR.

The ridge UAV survey will also be coordinated with neighboring landowners DLNR and Kamehameha Schools.



SOURCE: Dudek



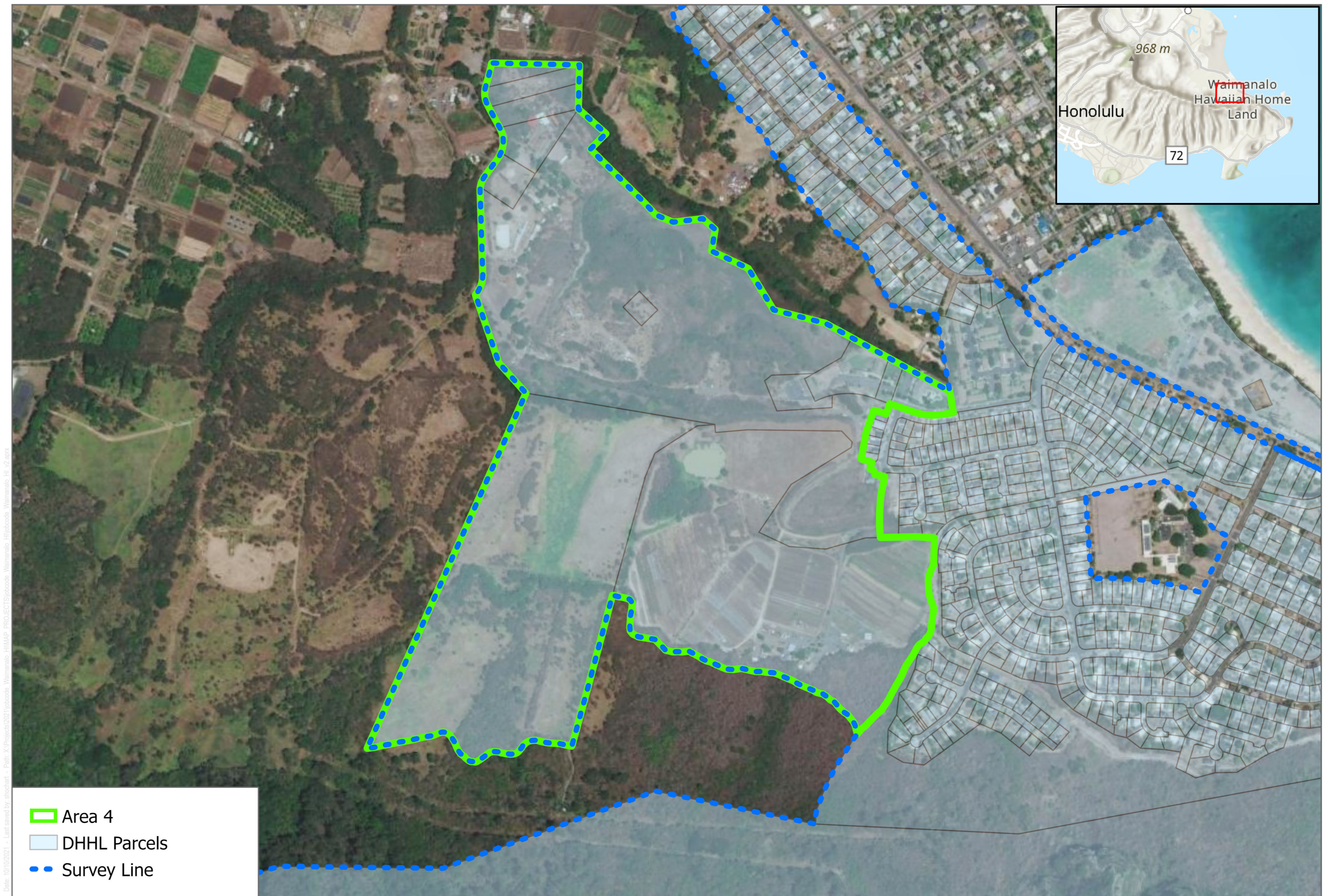
Survey Line  
Waimanalo Hawaiian Homelands

# Area 4

The boundaries being surveyed in this area are adjacent to DLNR and HDOA lands.

The Survey Team will survey the boundaries primarily by accessing the bordering open space and agricultural areas.

The Survey Team will provide notification to DHHL's general lessees, licensees, and permittees for their awareness and will coordinate activities as necessary.



SOURCE: Dudek



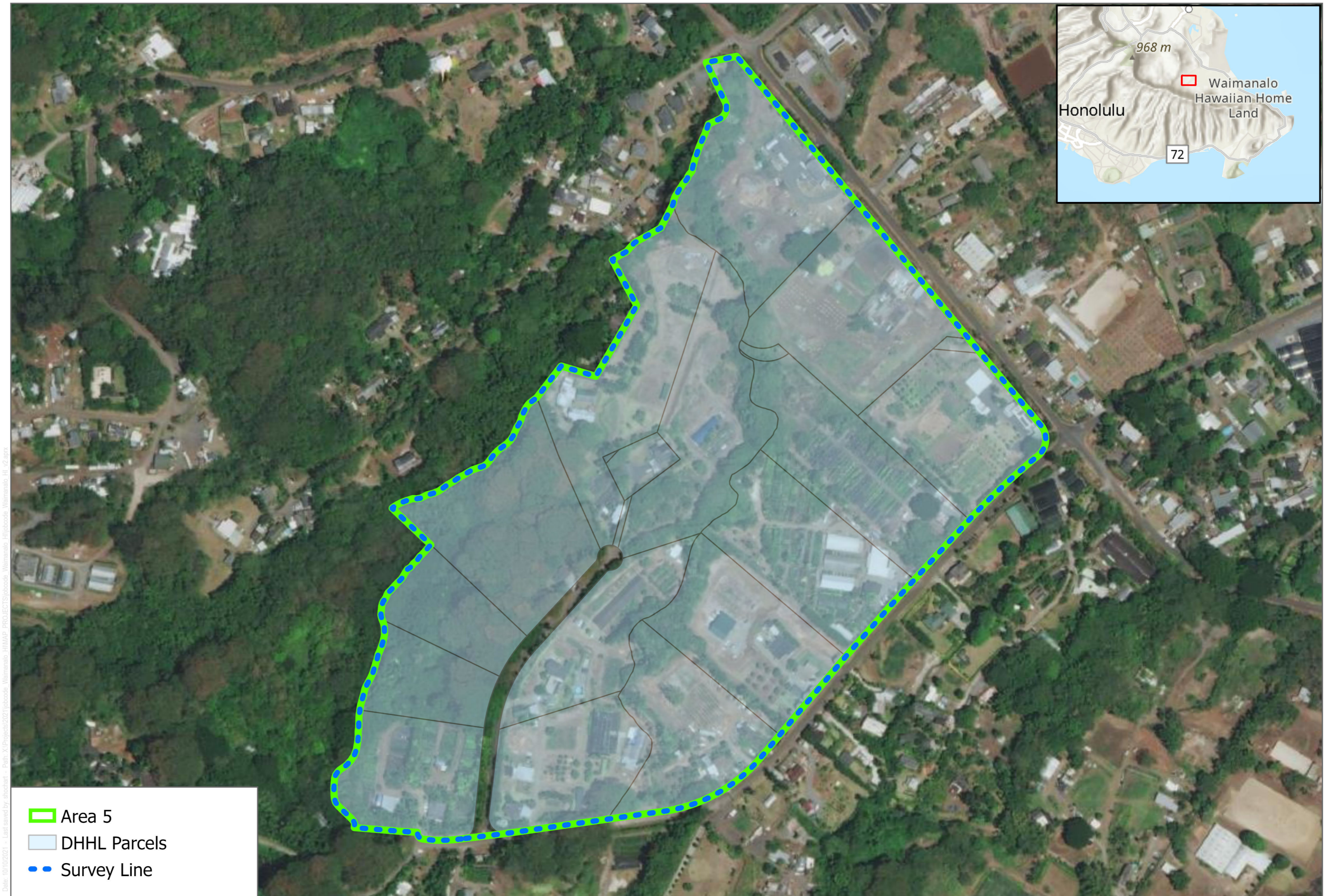
Survey Line  
Waimanalo Hawaiian Homelands

# Area 5

The boundaries being surveyed in this area border residential and agricultural lands.

The Survey Team will obtain individual ROEs before starting in this area and will follow COVID safety protocols and guidance.

The Survey Team minimizes its proximity to residences to the best of its ability.



SOURCE: Dudek



Survey Line  
Waimanalo Hawaiian Homelands

# Area 6

This area includes the residential homestead areas of Kumuhau and Kaka'ina.

The boundaries being surveyed in this area will require substantial residential homestead lot access.

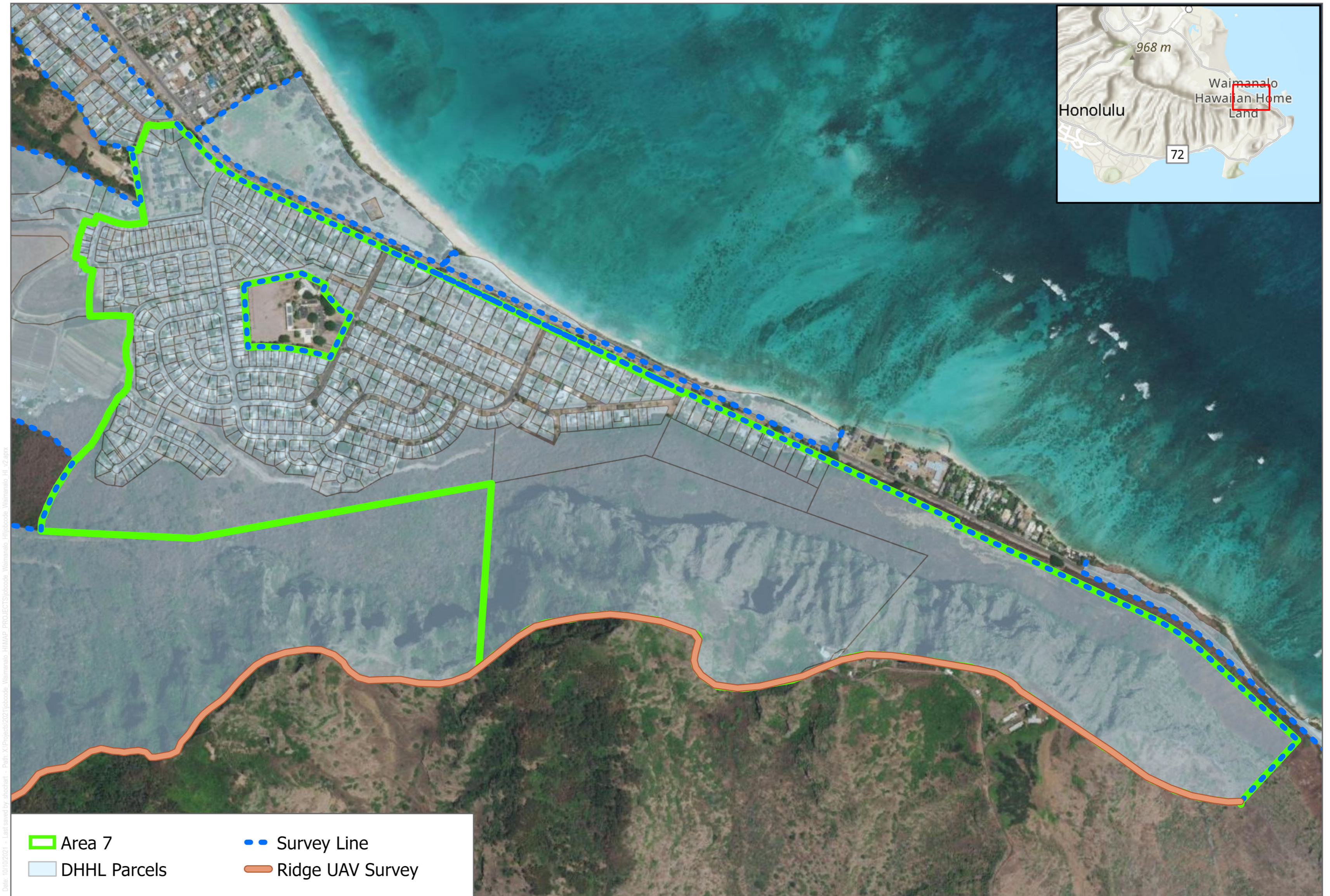
The Survey Team will obtain individual ROEs before starting in this area and will follow COVID safety protocols and guidance.



# Area 7

The boundaries being surveyed in this area will require some residential homestead lot access as well as coordination with general lessees.

The Survey Team will obtain individual ROEs before starting in this area and will follow COVID safety protocols and guidance.



SOURCE: Dudek



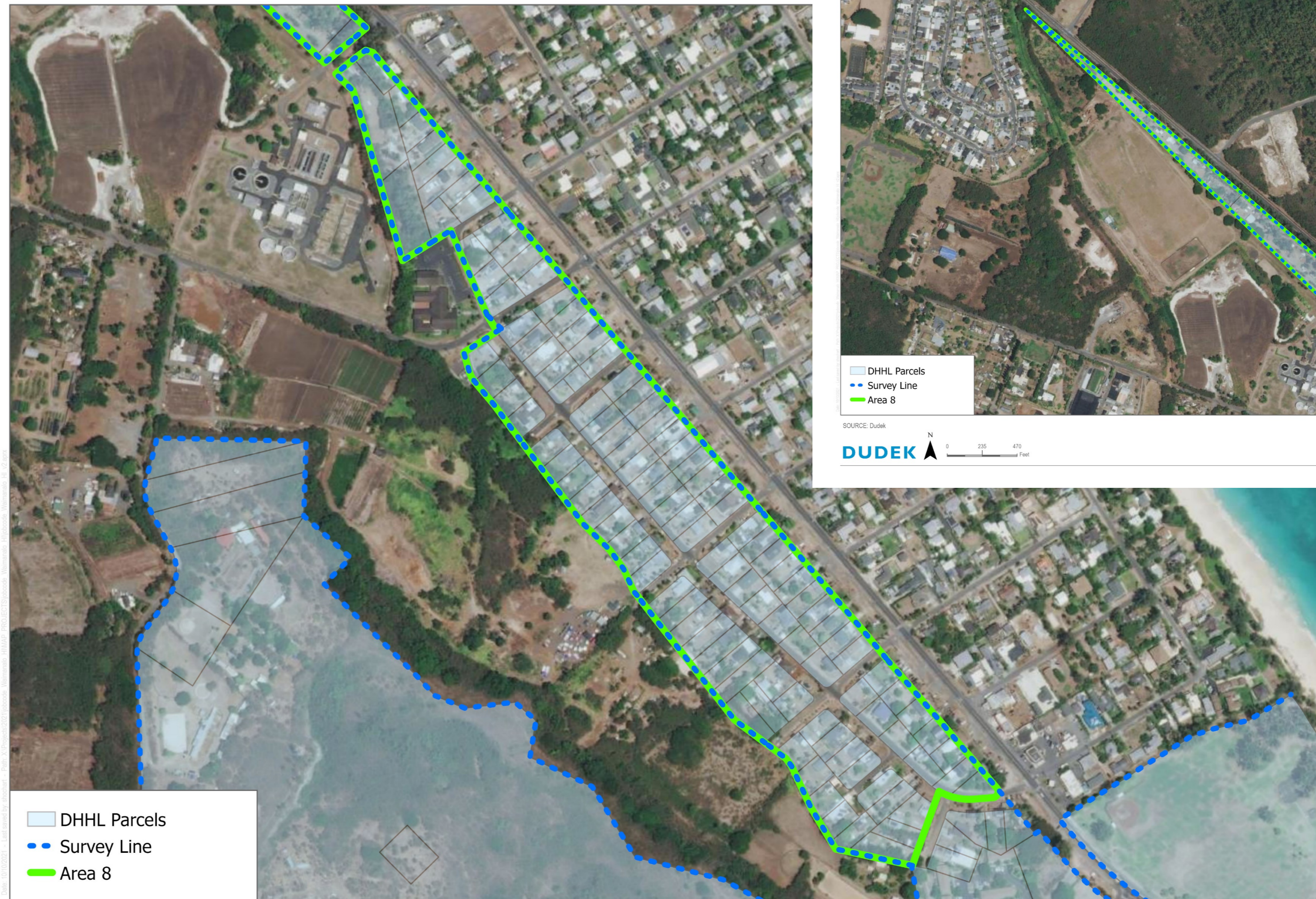
Survey Line  
Waimanalo Hawaiian Homelands

# Area 8

The boundaries in this area are adjacent to DLNR and HDOA lands.

The Survey Team will survey the boundaries primarily through neighboring open space and agricultural areas, though some may require residential homestead lot access.

The Survey Team will obtain individual ROEs as needed before starting in this area and will follow COVID safety protocols and guidance.



SOURCE: Dudgeon  
DUDEK  
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0 235 470  
Feet

Survey Line  
Waimanalo Hawaiian Homelands

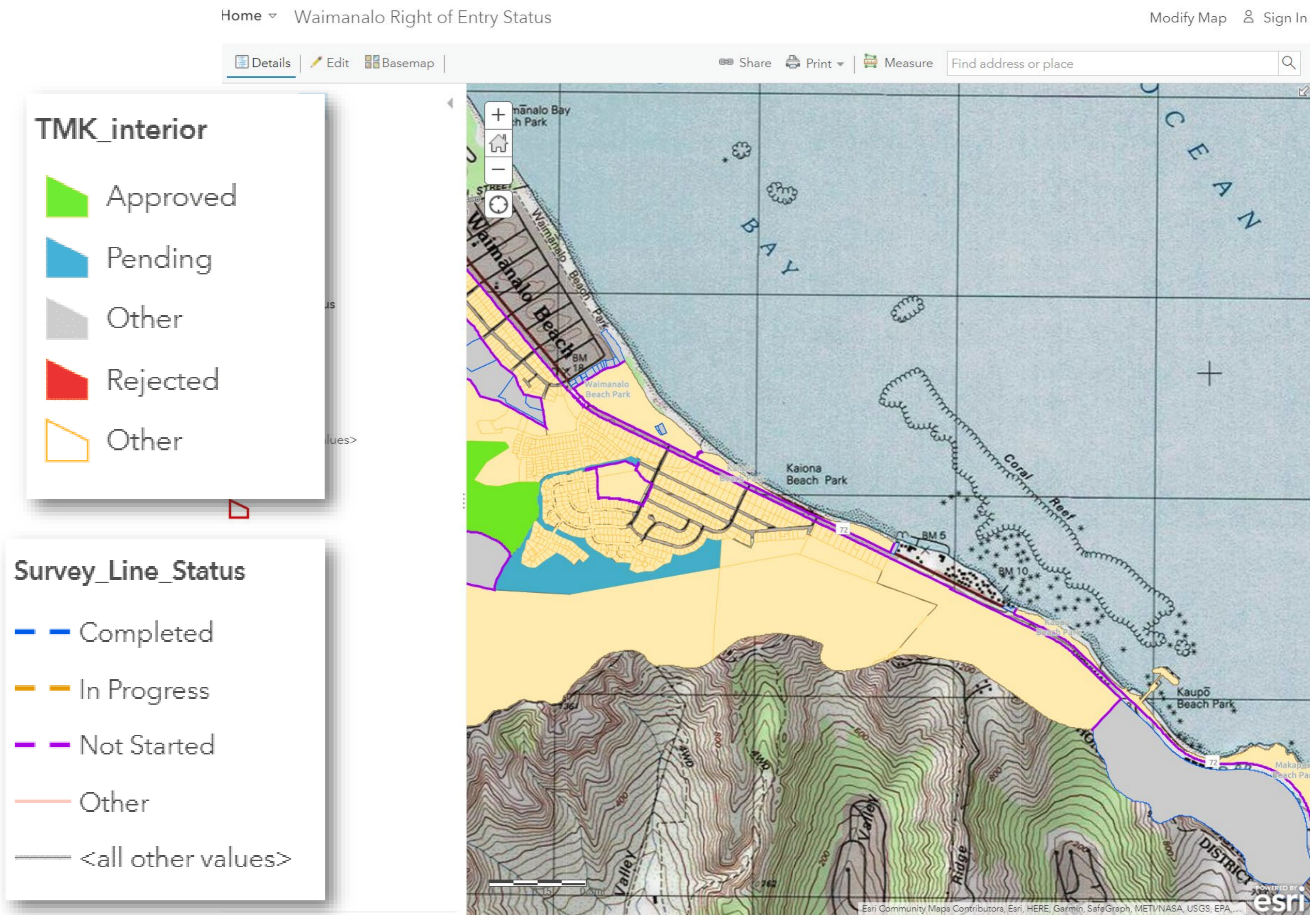


# Waimānalo Project Portal

Online map portal is available to track:

- Individual Right of Entry Status
  - Approved
    - in writing
    - over the phone
    - in-person
- Survey Line/Activity Status

**Portal will be accessible to authorized DHHL staff.**



# Waimānalo Projected Timeline

## Issuance of ROE + 2 months

- During the first month
    - 30-day notice to Hawaiian Home Lands lessees and adjoining landowners
    - Virtual open house, community engagement, internship recruitment
    - Survey Areas 1 through 4 which do not include residential homesteads
  - In the second month, survey Areas 5 through 8
- + 3 months for computations, reports, and review**
- Surveyor submits their field notes, data, calculations, and maps to BLM for review
  - BLM has 30 days to review and provide directions
  - Surveyor resets monuments if necessary, submits final documentation for BLM approval
- + 3 months for Federal Register publication and processing protests, if any**
- BLM publishes in Federal Register that survey plat and field notes have been officially filed
  - Protestants have 30 days in which to file a protest
  - Plat becomes official



# Mahalo Nui

## F-5 Request for Right of Entry to Waimānalo Q & A





## RESEARCH CREW

Research Hawaii land records for all original documentation  
 Research for any discrepancy while in the field.  
 BLM Standards for Boundary Evidence will be applied.



## FIELD CREW

Measure and mark boundaries, easements, right of ways, encroachments. In the field.  
 Certified Federal Surveyor will oversee procedures.



## OFFICE CREW

Draft parcels and prepare submittals for preliminary PLS boundary analysis.  
 Communicate with BLM survey office.  
 Provide revisions and final product to BLM.

# SURVEYING THE LAND: Simultaneous Compliance





## SEARCH AND RECOVER

Using record documents and calculations to recover field monumentation and evidence for the project area.



## COLLECT SURVEY DATA

Collect survey coordinates on all evidence utilizing RTK, static GPS and conventional Total Stations.



## IDENTIFY AND LOCATE

Review the perimeter boundaries for evidence of unauthorized use and encroachments along the parcel boundaries.

# SURVEYING THE LAND: Traverse and Location Surveys





## Right of Entry

All work will be completed under existing right of ways and public access and specific Limited and full Right of Entry Permits issued by DHHL for this project.



## Establish Control

Establish a control network of GPS coordinates This control will consist of static observations, as well as RTK datasets to densify the control network.



## Control Network

The control network will incorporate NGS monuments and local known coordinate stations setting permanent survey nails and spikes near the project boundary and in public right of ways.

# SURVEYING THE LAND: Establishing Control



**DUDEK**

Hawai'i



## TRAINING

RPS/Dudek will train every member of the survey team to perform Federal Authority Survey standards, to understand and perform each step of the survey, from research to production to filing -in compliance with BLM standards.



## DOCUMENTATION

The RPS/Dudek team will document to BLM standards through each section



## QUALITY CONTROL

The RPS/Dudek team retains an outsourced Federal Quality Controlcheck for every survey prepared for submittal to BLM.

# SURVEYING THE LAND: BLM Compliance



**DUDEK**

Hawai'i



Submittal to BLM



RPS/Dudek Liaison



BLM Finalization

RPS/Dudek team will submit the surveys to the California BLM office.

The survey will be submitted as certified by the RPS/Dudek Certified Federal Surveyor as technically accurate, federally compliant, by BLM oversight.

RRPS/Dudek will review with the BLM and incorporate all BLM desired adjustments

This review will finalize the survey document for the project area

From beginning to end, the RPS/Dudek Hawaii CFedS team for Waimānalo will have provided communication and compliance to meet the needs of the Department of the Interior, Office of Native Hawaiian Relations, Bureau of Land Management, and the Department of Hawaiian Homelands.





# Survey Activities: Boundary Monumentation



RPS/Dudek provided the necessary data and information to provide Federal Authority Surveys for approval by the Bureau of Land Management

1. Waimanalo Hawaiian Homelands Trust surveys now meet or exceed Federal and State of Hawai'i survey standards.
2. All boundaries are now correctly measured, monumented and admissible to be recorded
3. All work completed by the RPS/Dudek team is now in COMPLIANCE PER THE BLM STANDARDS allowing them to list each parcel in the BLM official land records system.
4. The RPS/DUDEK team will have set new monuments where needed or reset incorrect monuments .



**The Correct BLM recorded surveys now provide the tools needed to access benefits, and make land management choices, providing aide to beneficiaries.**