



# O'ahu Landfill Siting Study

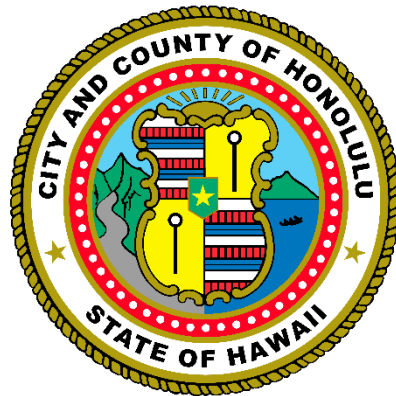
## Supplemental Technical Memorandum

Final

City and County of Honolulu, Hawai'i

October 15, 2024

Department of Environmental Services  
Refuse Division  
City and County of Honolulu





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# 1 Introduction

The City and County of Honolulu (City), Department of Environmental Services (ENV), conducted a municipal solid waste landfill siting study on the island of O'ahu as an initial step in replacing the existing Waimānalo Gulch Sanitary Landfill (WGSL). Based on conditions added to the WGSL's Special Use Permit (SUP) SP09-403 issued by the State of Hawai'i Land Use Commission (LUC) on November 1, 2019, the City was required to identify an alternative landfill site no later than December 31, 2022. This deadline was later extended to December 31, 2024. The following Landfill Siting Study Report documents the City's efforts in completing the siting analysis, including identification of six potential landfill sites and recommendations by the Landfill Advisory Committee (LAC) that participated in the study:

*O'ahu Landfill Siting Study & Landfill Advisory Committee Recommendations, June 2022.*

Federal Subtitle D regulations (Subtitle D), Hawai'i Administrative Rules Title 11 (HAR Title 11), and state legislation adopted through passage of State House Bill (SB)2386 in September 2020 (referred to as Act 73), prohibit a disposal facility from being located within buffer distances from airport runways (Subtitle D); within a tsunami zone (HAR Title 11); within one-half mile of residences, schools, and hospitals (Act 73); and in the conservation district<sup>1</sup> (Act 73). Table 1 summarizes the applicable federal and state restrictions discussed in this *Supplemental Technical Memorandum*:

Table 1. Federal & State Restrictions		
Restriction	Reference	Requirement
<b>Airport Buffer Restriction</b>	Federal Subtitle D of the Resource Conservation and Recovery Act (RCRA) ( <b>Subtitle D</b> )	"Owners/Operators of a new landfill that is located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft must demonstrate that the units are designed and operated so that the landfill does not pose a bird hazard to aircraft."
<b>Tsunami Zone Restriction</b>	Hawai'i Administrative Rules Title 11 ( <b>HAR Title 11</b> )	"New municipal solid waste landfills and lateral expansions shall not be located in possible tsunami inundation areas."
<b>Act 73</b>	State House Bill (SB)2386 and Hawai'i Revised Statutes (HRS) Sections 183C-4 & 342H-52 ( <b>Act 73</b> )	<ul style="list-style-type: none"> <li>- "No waste or disposal facility shall be constructed, modified, or expanded without first establishing a buffer zone of no less than one-half mile around the waste or disposal facility."</li> <li>- "No waste or disposal facility shall be located in a conservation district except in emergency circumstances where it may be necessary to mitigate significant risks to public safety and health; provided further that emergency circumstances shall not exceed three years."</li> </ul>

Technical and operational factors, including waste capacity needs, land ownership, Federal Aviation Administration (FAA) determinations, and environmental sensitivity

<sup>1</sup> The conservation district subzones include the following: special, protective, general, resource, and limited.

(along with several others described in the Landfill Siting Study Report), also influence the siting of a landfill.

The Subtitle D, HAR Title 11, and Act 73 landfill siting restrictions and other siting factors listed above require ENV to locate the six potential landfill sites in the City Board of Water Supply (BWS) No Pass Zone. BWS established the No Pass Zone as a delineation of O'ahu's drinking water resources (aquifer system). Figure 1.1 shows an overlay of the landfill siting restrictions, the No Pass Zone, and locations of the six potential landfill sites identified in the Landfill Siting Study Report.

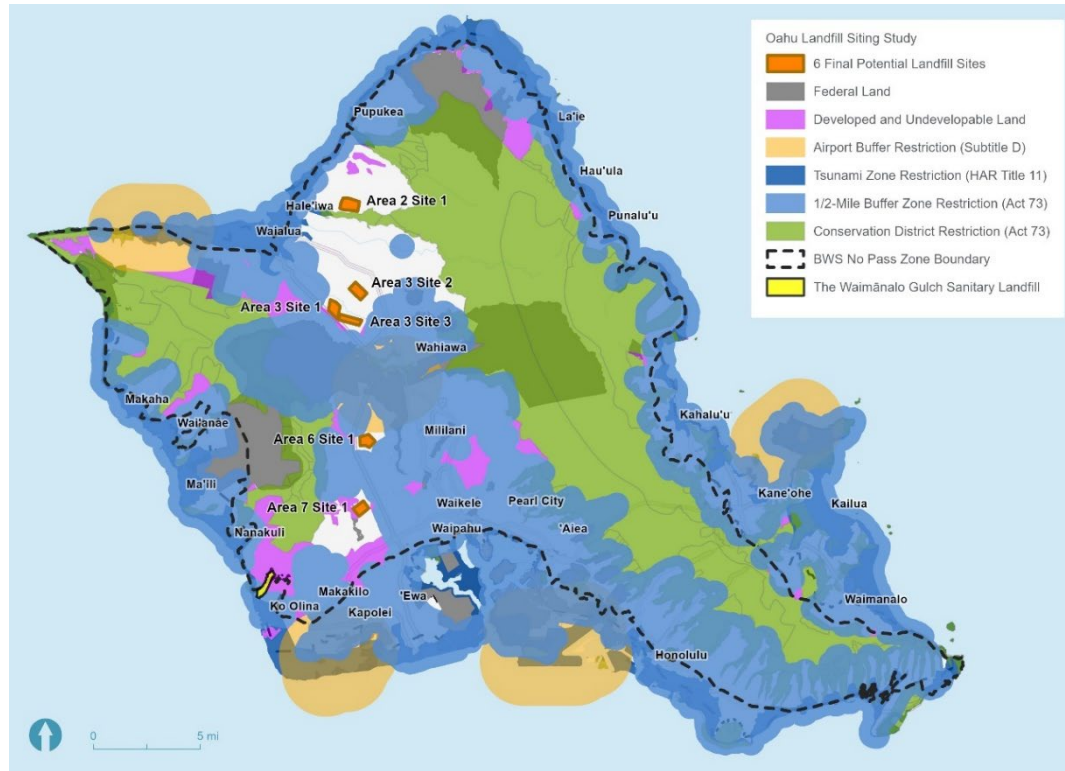


Figure 1.1. Landfill Siting Restrictions on O'ahu

## 1.1 LAC Recommendations

LAC members expressed concerns during the landfill siting study related to the location of the proposed six sites in the No Pass Zone and, consequently, the potential implications for O'ahu's drinking water resources. Due to their concerns, LAC members approved a motion during the study to not recommend any of the final landfill sites due to their locations within the No Pass Zone and made additional recommendations for the City as follows:

1. Explore amending Act 73 to allow selection of more suitable sites outside of the No Pass Zone.
2. Request more time from the LUC to explore amending Act 73 and thoroughly evaluate federally-owned and leased land and eminent domain options for

parcels outside the No Pass Zone.

On December 22, 2022, ENV submitted an application request to the LUC to modify the WGSL's SUP conditions that set a December 31, 2022, deadline for ENV to identify an alternative landfill site. ENV requested a two-year extension to re-evaluate its options, including, but not limited to, additional time to explore the use of federal lands outside the No Pass Zone and work with state legislature on new law or amendments to existing law, including Act 73, that would expand potential landfill siting options outside the No Pass Zone. On August 23, 2024, the LUC granted ENV's request to extend the December 31, 2022, deadline subject to the following provisions and conditions presented in the Planning Commission's Decision and Order dated May 15, 2024:

1. By no later than December 31, 2024, ENV shall identify an alternative landfill site and provide written notice to the Planning Commission and LUC;
2. ENV shall report quarterly to the Planning Commission, in-person, the efforts it has taken and plans to take to identify an alternative landfill site by December 31, 2024, and answer questions from the Commission and community; and
3. All other conditions to Special Use Permit No. 20080/SUP-2 as stated in the 2019 orders remain in full force and effect.

ENV prepared this *Supplemental Technical Memorandum* to evaluate whether amending Act 73 will provide additional sites outside of the No Pass Zone.

## 1.2 Re-Evaluation of Landfill Sites Outside the No Pass Zone

ENV re-evaluated areas outside of the No Pass Zone to potentially site a new landfill using the steps listed below. Step 1 is the most restrictive (i.e., all Subtitle D, HAR Title 11, and Act 73 restrictions are applied), whereas Step 4 is the least restrictive with removal of the Act 73 restrictions. Between each subsequent Step, Act 73 restrictions are modified or removed. Areas were identified based on a sizing consideration minimum of approximately 100 acres. Smaller areas were included for consideration if the topography of the area has the potential to support an appropriately-sized landfill (former quarry or canyon). Areas less than 100 acres are listed in Section 1.3.6 and are shown in Attachment B. Table 2 (refer to Section 1.4) summarizes the conditions and restrictions applied to each Step and the corresponding potential non-restricted areas.

Step 1: Subtitle D, HAR Title 11, and Act 73 restrictions applied (refer to Section 1.2.1).

Step 2: Subtitle D, HAR Title 11, and reductions in Act 73 restrictions applied (refer to Section 1.2.2):

- The one-half-mile buffer zone restriction for residences, schools, and hospitals is reduced to one-quarter mile; and
- The limited, resource, and general subzones are removed from the conservation district restrictions.

Step 3: Subtitle D, HAR Title 11, and reductions in Act 73 restrictions applied (refer to Section 1.2.2):

- The one-half-mile buffer zone restriction for residences, schools, and hospitals is removed; and
- The limited, resource, and general subzones are removed from the conservation district restrictions.

Step 4: Only Subtitle D and HAR Title 11 restrictions applied (removal of Act 73 restrictions; refer to Section 1.2.4).

Attachment A shows changes to the areas identified in each Step (Sections 1.2.1 through 1.2.4) when the respective conditions and restrictions are applied. Although ENV has identified non-restricted areas outside the No Pass Zone, additional technical and operational analysis is needed to determine the feasibility of siting a landfill in these locations. Additional analysis may be completed by ENV if revisions to HRS Sections 183C-4 and 342H-52 (Act 73) are adopted through state legislation.

### 1.2.1 Step 1 – Subtitle D, HAR Title 11, and Act 73 Restrictions Applied

Figure 1.2 shows an overview map of the additional areas identified outside the No Pass Zone that are non-restricted by Subtitle D, HAR Title 11, and Act 73 restrictions for siting a landfill. Figures 1.3 through 1.6 show closer extents of the four identified areas. The four areas include: an area adjacent to the WGSL, federal land east of the community of Mā'ili, federal land at the Waipi'o Peninsula and City Soccer Complex, and federal land at West Loch Annex (Iroquois Point).

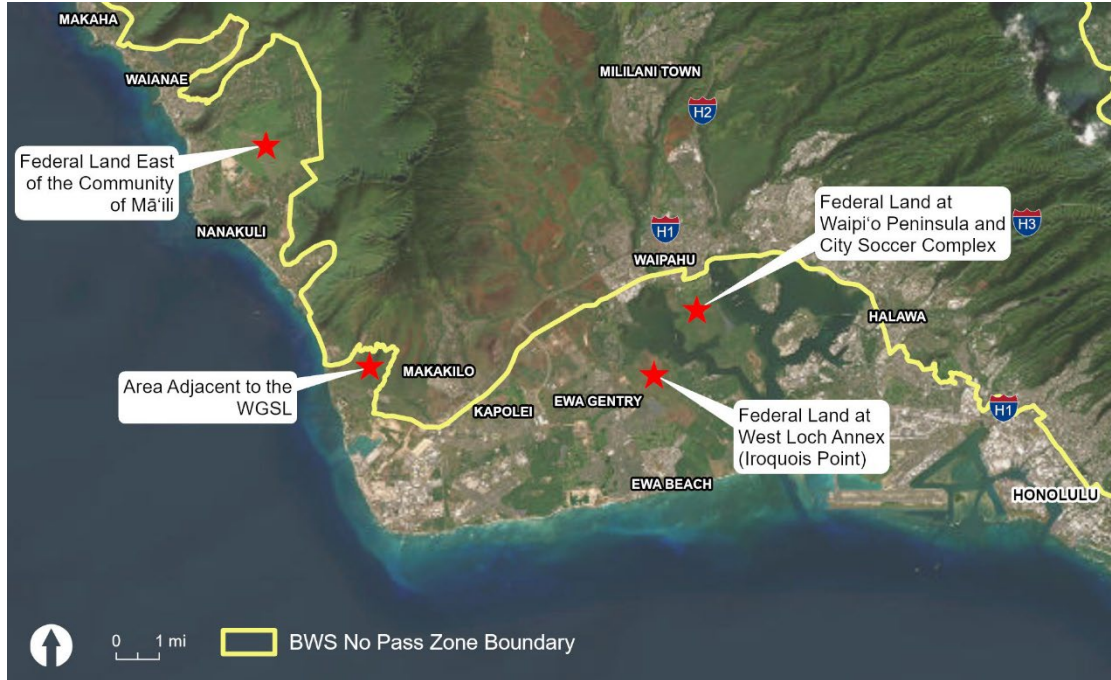


Figure 1.2. Non-Restricted Areas Identified Under Step 1

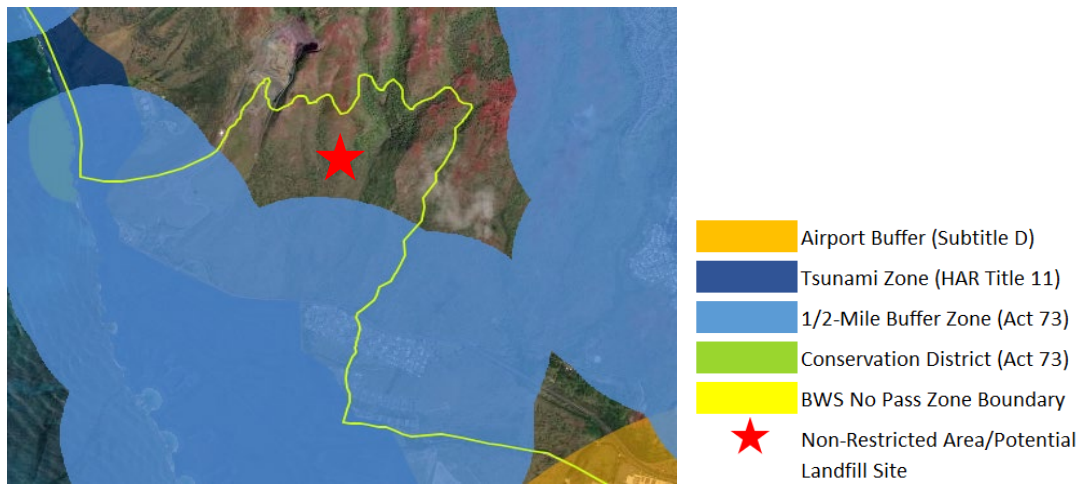


Figure 1.3. Area Adjacent to the WGSL

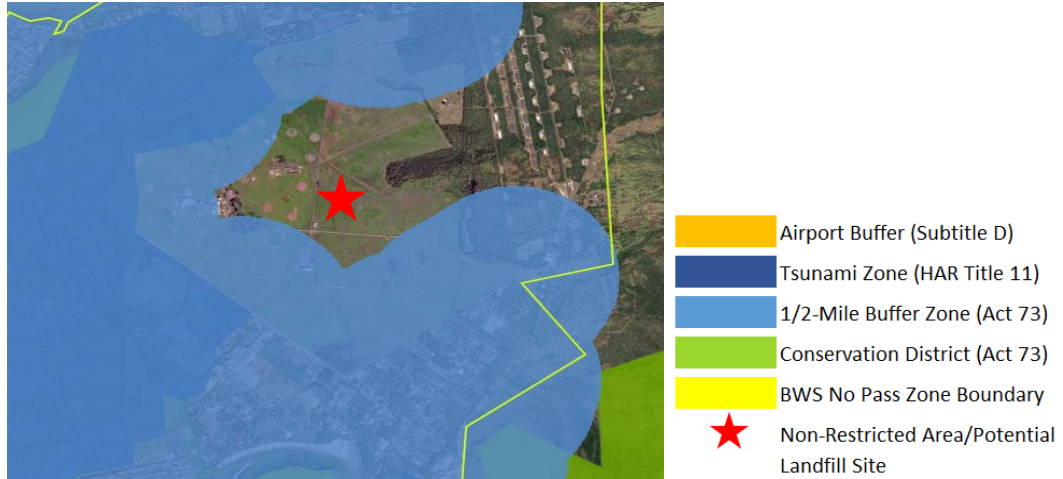


Figure 1.4. Federal Land East of the Community of Mā'ili

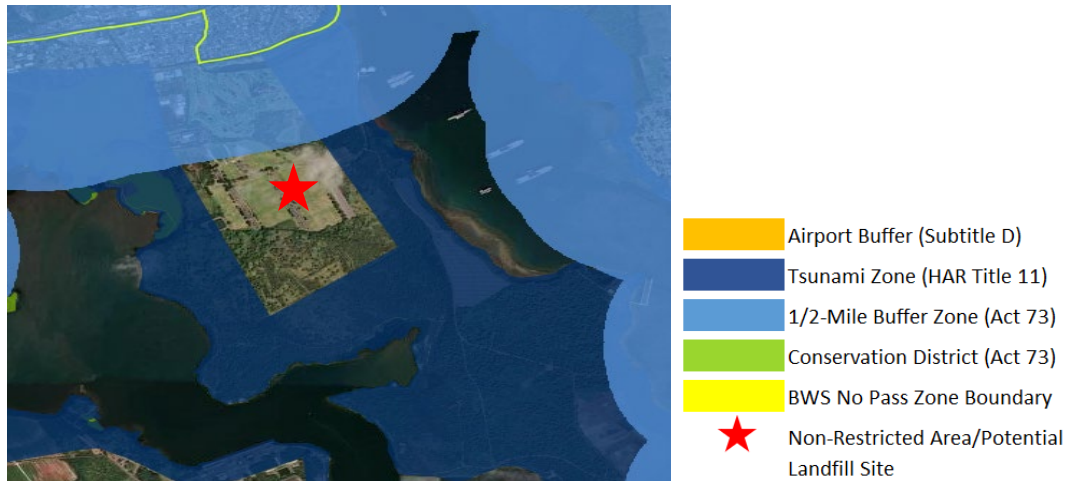


Figure 1.5. Federal Land at Waipi'o Peninsula and City Soccer Complex

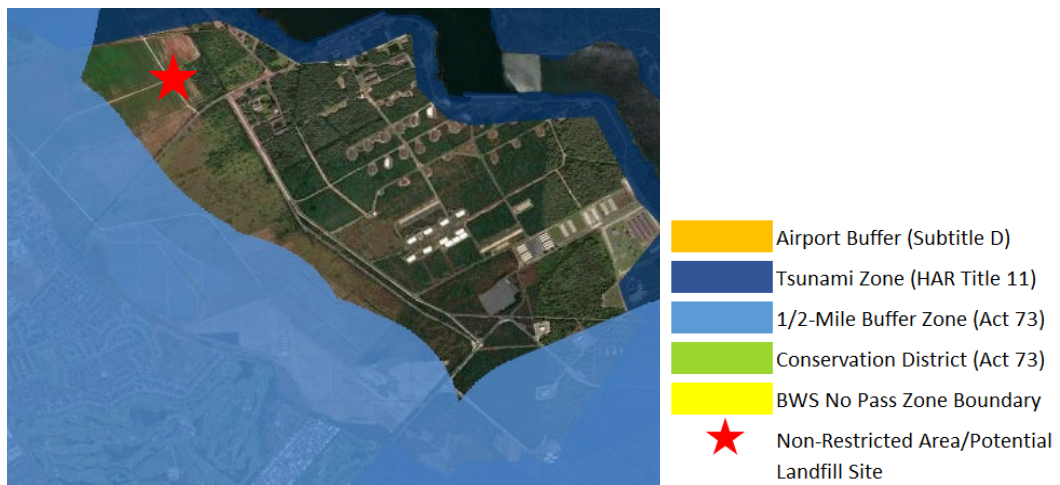


Figure 1.6. Federal Land at West Loch Annex (Iroquois Point)

1.2.2 Step 2 – Subtitle D, HAR Title 11, and Reductions in Act 73 Restrictions Applied (Buffer Zone Reduced From ½-Mile to ¼-Mile; Limited, Resource, and General Conservation District Subzones Removed)

Figure 1.7 shows an overview map of the additional areas identified outside the No Pass Zone with the one-half-mile buffer zone restriction for residences, schools, and hospitals reduced to one-quarter mile and including areas located in the limited, resource, and general subzones of the conservation district. Figures 1.8 and 1.9 show closer extents of the two identified areas. The two areas include: an area near Waimānalo Country Farms and the HC&D South Quarry and Adjacent Area.



Figure 1.7. Non-Restricted Areas Identified Under Step 2



Figure 1.8. Area Near Waimānalo Country Farms



Figure 1.9. HC&D South Quarry and Adjacent Area<sup>2</sup>

### 1.2.3 Step 3 – Subtitle D, HAR Title 11, and Reductions in Act 73 Restrictions Applied (1/2-Mile Buffer Zone Removed; Limited, Resource, and General Conservation District Subzones Removed)

Figure 1.10 shows an overview map of the additional areas identified outside the No Pass Zone that are non-restricted by removal of the entire one-half-mile buffer zone from residences, schools, and hospitals, and including areas located in the limited, resource, and general subzones of the conservation district. Figures 1.11 through 1.15 show closer extents of the five identified areas. The five areas include: the HC&D North Quarry, an area occupied by the Hawai'i Youth Correctional Facility and Olomana School, an area near Castle Junction and the Pali Highway, the Hawai'i Prince Golf Club, and an area near the University of Hawai'i West O'ahu campus and Farrington Highway.

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<sup>2</sup> In Step 3, the North Quarry becomes available (refer to Section 1.2.3 and Attachment A).



Figure 1.10. Non-Restricted Areas Identified Under Step 3

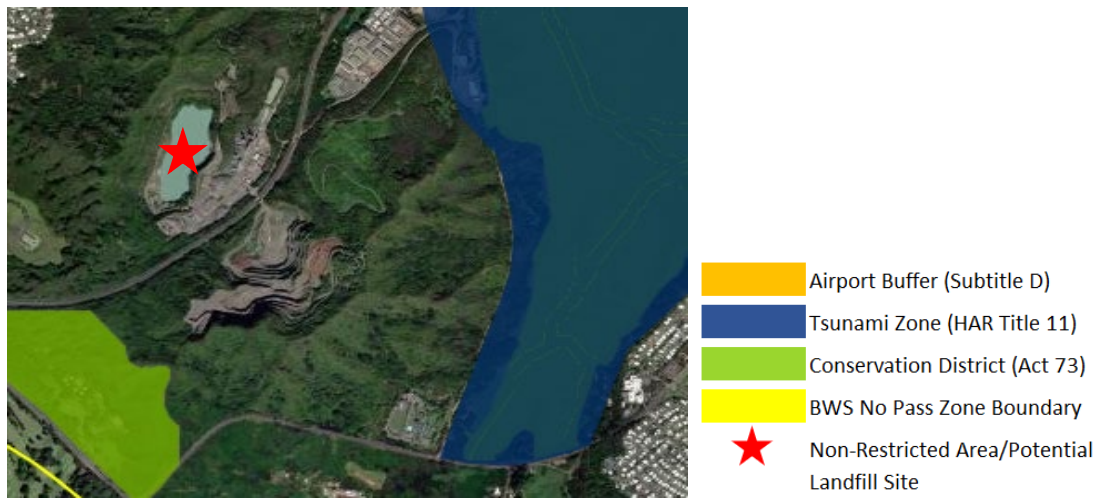
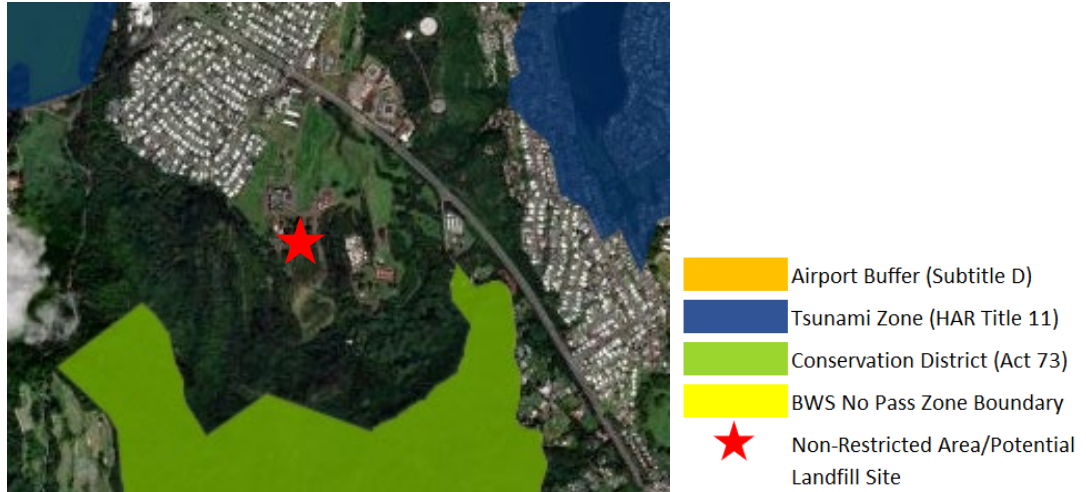
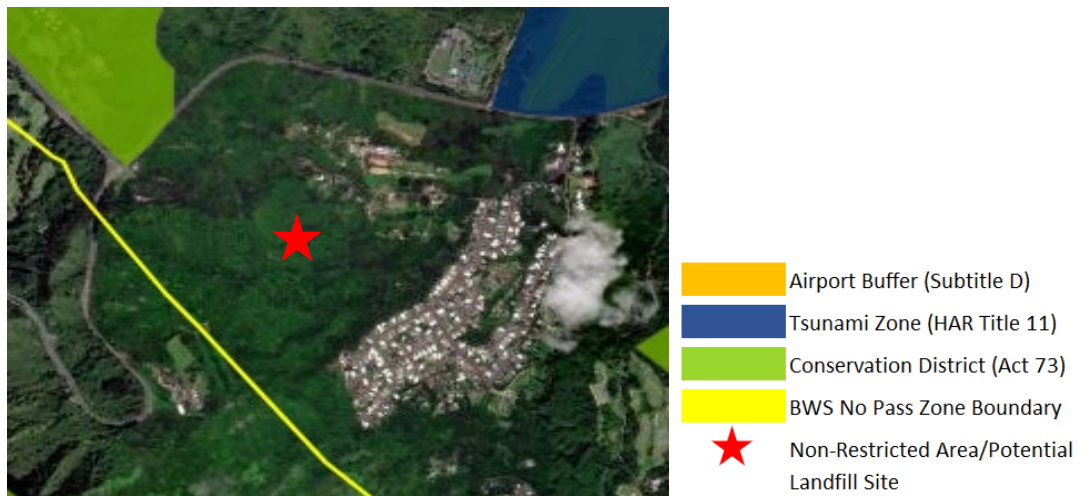


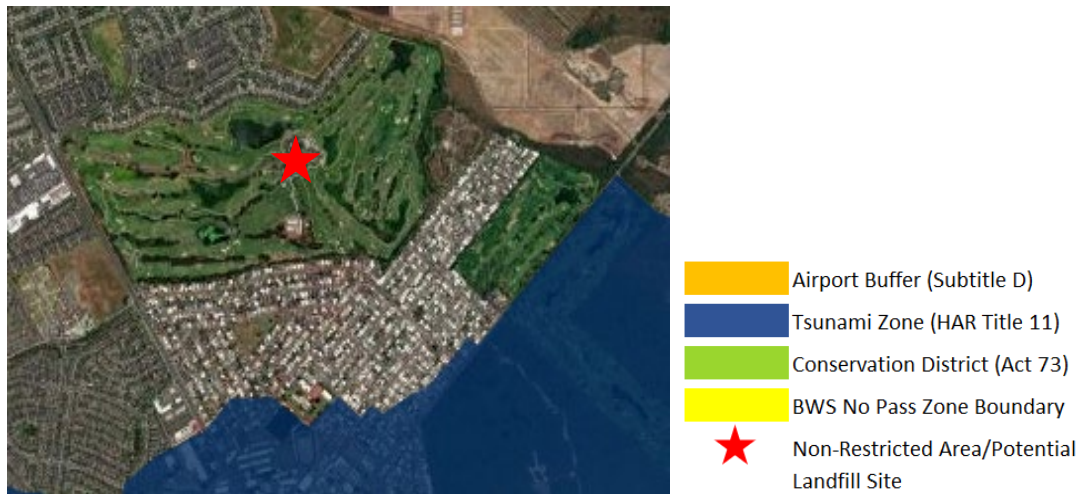
Figure 1.11. HC&D North Quarry



**Figure 1.12. Area Occupied by the Hawai'i Youth Correctional Facility and Olomana School**



**Figure 1.13. Area Near Castle Junction and Pali Highway**



**Figure 1.14. Hawai'i Prince Golf Club**

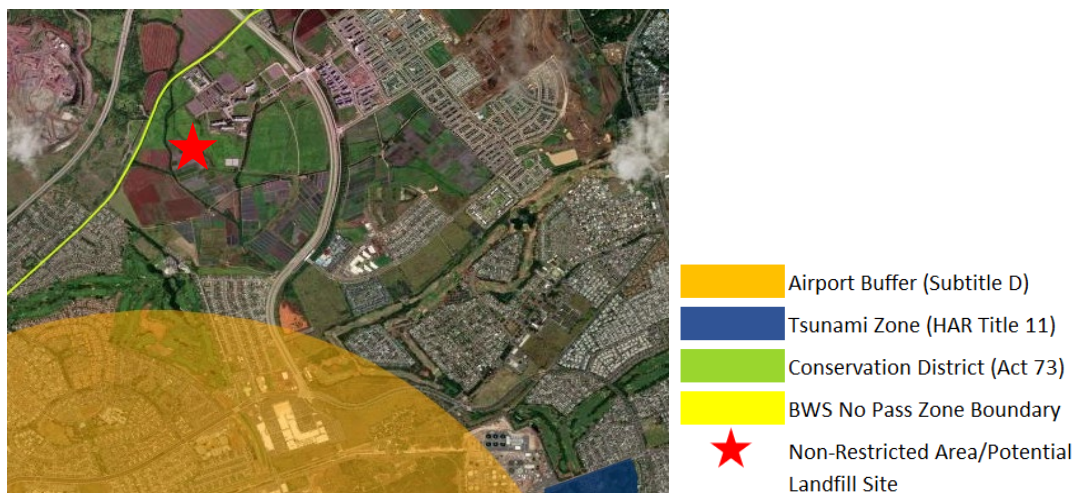


Figure 1.15. Area Near University of Hawai'i West O'ahu and Farrington Highway

#### 1.2.4 Step 4 – Only Subtitle D and HAR Title 11 Restrictions Applied

Step 4 applies the removal of Act 73 (i.e., the one-half-mile buffer zone from residences, schools, and hospitals, and all conservation district restrictions). No additional areas were identified outside the No Pass Zone that are non-restricted by the entirety of Act 73.

### 1.3 Potential Non-Restricted Land Removed From Consideration

Through further evaluation of the sites identified in Sections 1.2.1 through 1.2.4, the following areas have been removed from consideration as a potential landfill site.

#### 1.3.1 Area Adjacent to the WGSL

Mayor Blangiardi has instructed ENV to remove sites along O'ahu's Leeward coast from consideration.

#### 1.3.2 Federal Land East of the Community of Mā'ili

Mayor Blangiardi has instructed ENV to remove sites along O'ahu's Leeward coast from consideration.

#### 1.3.3 Federal Land at Waipi'o Peninsula and City Soccer Complex

In early April 2024, the U.S. Navy (Navy) indicated that it was unable to support the development of a landfill on the federal land located at the Waipi'o Peninsula and City Soccer Complex. This decision<sup>3</sup> was made based on concerns regarding the

<sup>3</sup> The decision was indicated in a letter dated April 12, 2024.

site's proximity to near-shore waters and critical Navy mission operations and training activities.

### 1.3.4 Federal Land at West Loch Annex (Iroquois Point)

The federal land at West Loch Annex, located in the Iroquois Point area, was removed from consideration as this land is being developed by the Navy to include additional ordnance magazines, a security checkpoint and perimeter fencing, and photovoltaic solar farms.

### 1.3.5 Hawai'i Prince Golf Club

The Hawai'i Prince Golf Club was removed from consideration due to its location being between and in the flight paths of the Kalaeloa (John Rodgers Field) and Daniel K. Inouye International Airports.

### 1.3.6 Areas Under 100 Acres

Areas located outside the No Pass Zone with less than approximately 100 acres are not feasible to accommodate a landfill (refer to Section 1.2 for the sizing consideration). These sites include the following:

- Pali Golf Course;
- Waiāhole Forest Preserve and Farmland (Waiāhole Homestead Road); and
- Royal Hawaiian Golf Club.



Figure 1.16. Identified Non-Restricted Areas Under 100 Acres



Attachment B shows the approximate locations of these areas and the changes to the areas when the conditions and restrictions are applied under each Step (per Sections 1.2.1 through 1.2.4).

## 1.4 Summary

Table 2 summarizes the applied condition(s)/restriction(s) for each Step and the respective areas identified outside of the No Pass Zone to potentially site a new landfill. Attachment A shows changes to these identified areas when the conditions and restrictions are applied under each Step (per Sections 1.2.1 through 1.2.4).

Table 2. Summary of Applied Conditions/Restrictions			
Step	Condition(s)/Restriction(s)	Additional Identified Areas	Removed From Further Consideration (Per Section 1.3)
1	<ul style="list-style-type: none"> <li>- Subtitle D restrictions applied</li> <li>- HAR Title 11 and Act 73 restrictions applied</li> </ul>	<ol style="list-style-type: none"> <li>1. Area adjacent to the WGSL</li> <li>2. Federal land east of the Community of Mā'ili</li> <li>3. Federal land at Waipi'o Peninsula and City Soccer Complex</li> <li>4. Federal land at West Loch Annex (Iroquois Point)</li> </ol>	<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/></li> <li>2. <input checked="" type="checkbox"/></li> <li>3. <input checked="" type="checkbox"/></li> <li>4. <input checked="" type="checkbox"/></li> </ol>
2	<ul style="list-style-type: none"> <li>- Subtitle D and HAR Title 11 restrictions applied</li> <li>- Modifications to Act 73 restrictions:                             <ul style="list-style-type: none"> <li>• The one-half-mile buffer zone for residences, schools, and hospitals is reduced to one-quarter-mile</li> <li>• The limited, resource, and general subzones of the conservation district are removed</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1. Area near Waimānalo Country Farms</li> <li>2. HC&amp;D South Quarry and Adjacent Area<sup>1</sup></li> </ol>	<ol style="list-style-type: none"> <li>1. <input type="checkbox"/></li> <li>2. <input type="checkbox"/></li> </ol>
3	<ul style="list-style-type: none"> <li>- Subtitle D and HAR Title 11 restrictions applied</li> <li>- Modifications to Act 73 restrictions:                             <ul style="list-style-type: none"> <li>• The one-half-mile buffer zone for residences, schools, and hospitals is removed</li> <li>• The limited, resource, and general subzones of the conservation district are removed</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1. HC&amp;D North Quarry</li> <li>2. Area occupied by the Hawai'i Youth Correctional Facility and Olomana School</li> <li>3. Area near Castle Junction and Pali Highway</li> <li>4. Hawai'i Prince Golf Club</li> <li>5. Area near University of Hawai'i West O'ahu campus and Farrington Highway</li> </ol>	<ol style="list-style-type: none"> <li>1. <input type="checkbox"/></li> <li>2. <input type="checkbox"/></li> <li>3. <input type="checkbox"/></li> <li>4. <input checked="" type="checkbox"/></li> <li>5. <input type="checkbox"/></li> </ol>
4	<ul style="list-style-type: none"> <li>- Subtitle D and HAR Title 11 restrictions applied</li> <li>- Act 73 restrictions removed</li> </ul>	No additional areas were identified for this Step.	

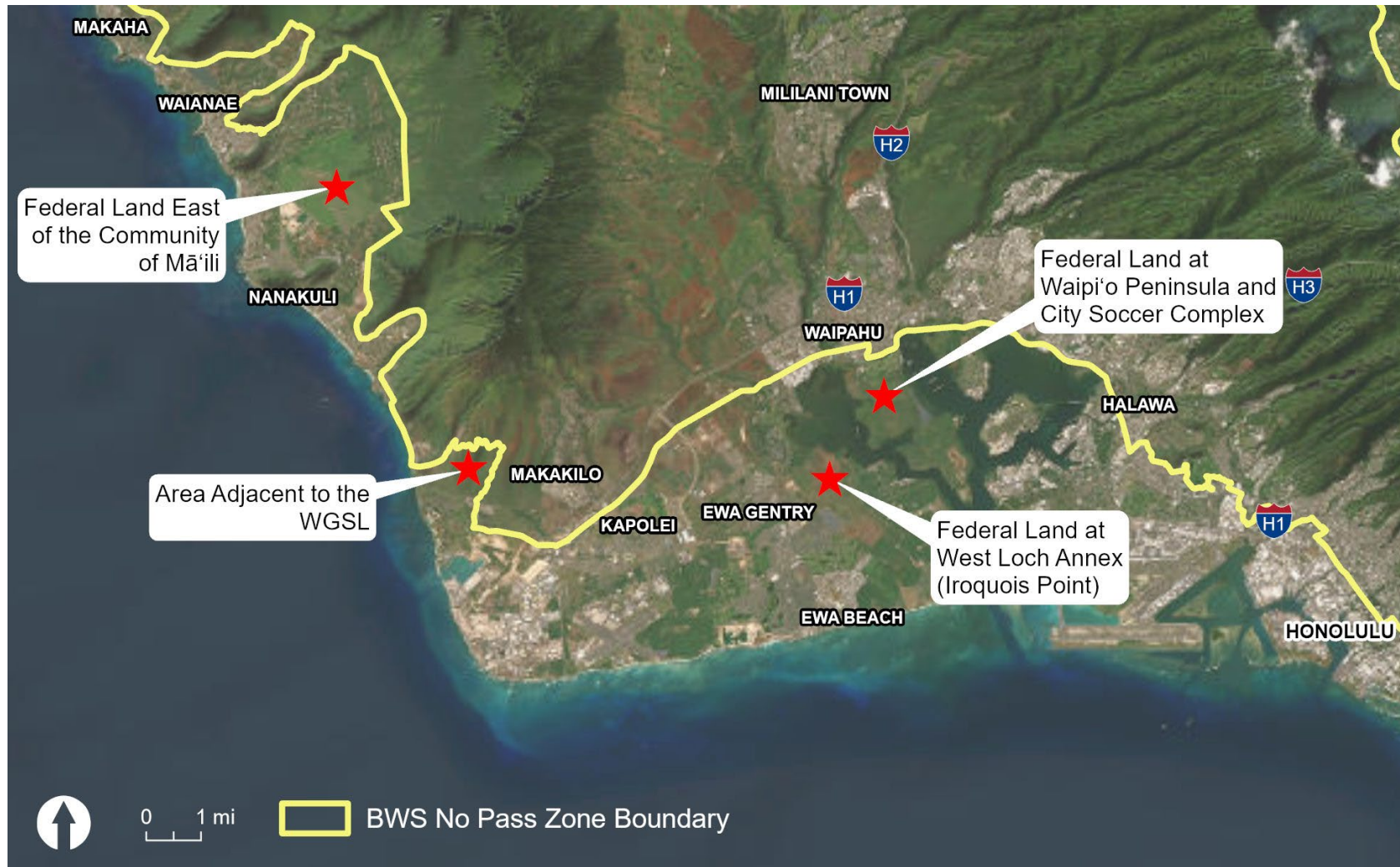
<sup>1</sup> In Step 3, the North Quarry becomes available (refer to Section 1.2.3 and Attachment A).



# Attachment A







Changes to the Identified  
Areas for Each Step

# Non-Restricted Areas Identified Under Step 1









# Area Adjacent to the WGSL

Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site









Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site









# Federal Land East of the Community of Mā'ili

Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



# Federal Land at Waipi'o Peninsula and City Soccer Complex

Step 1



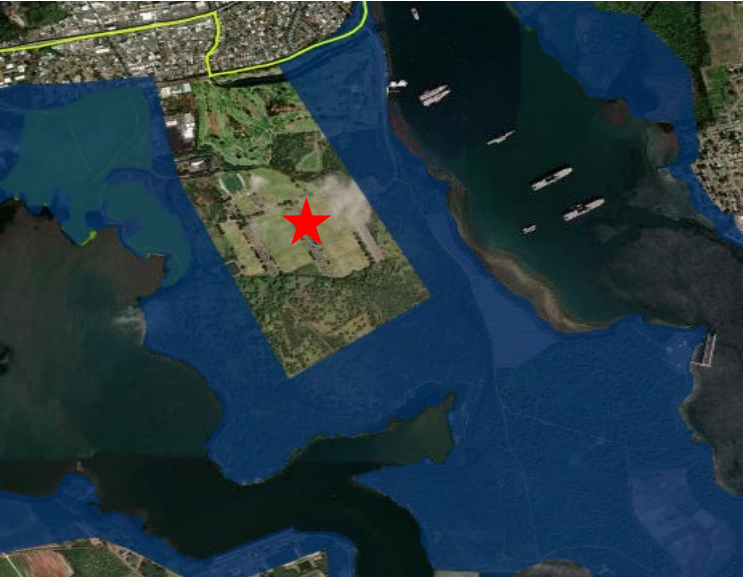
- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/2-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site

Step 2



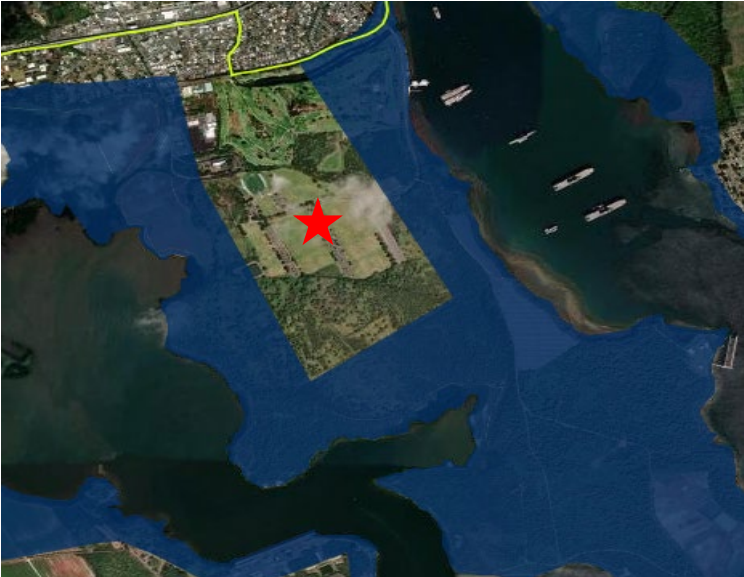
- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/4-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site

Step 3



- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site







Step 4



- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site







# Federal Land at West Loch Annex (Iroquois Point)

Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site









# Non-Restricted Areas Identified Under Step 2









# Area Near Waimānalo Country Farms

## Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








## Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







## Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



## Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



# HC&D South Quarry and Adjacent Area

Step 1

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/2-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 2

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/4-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 3

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site

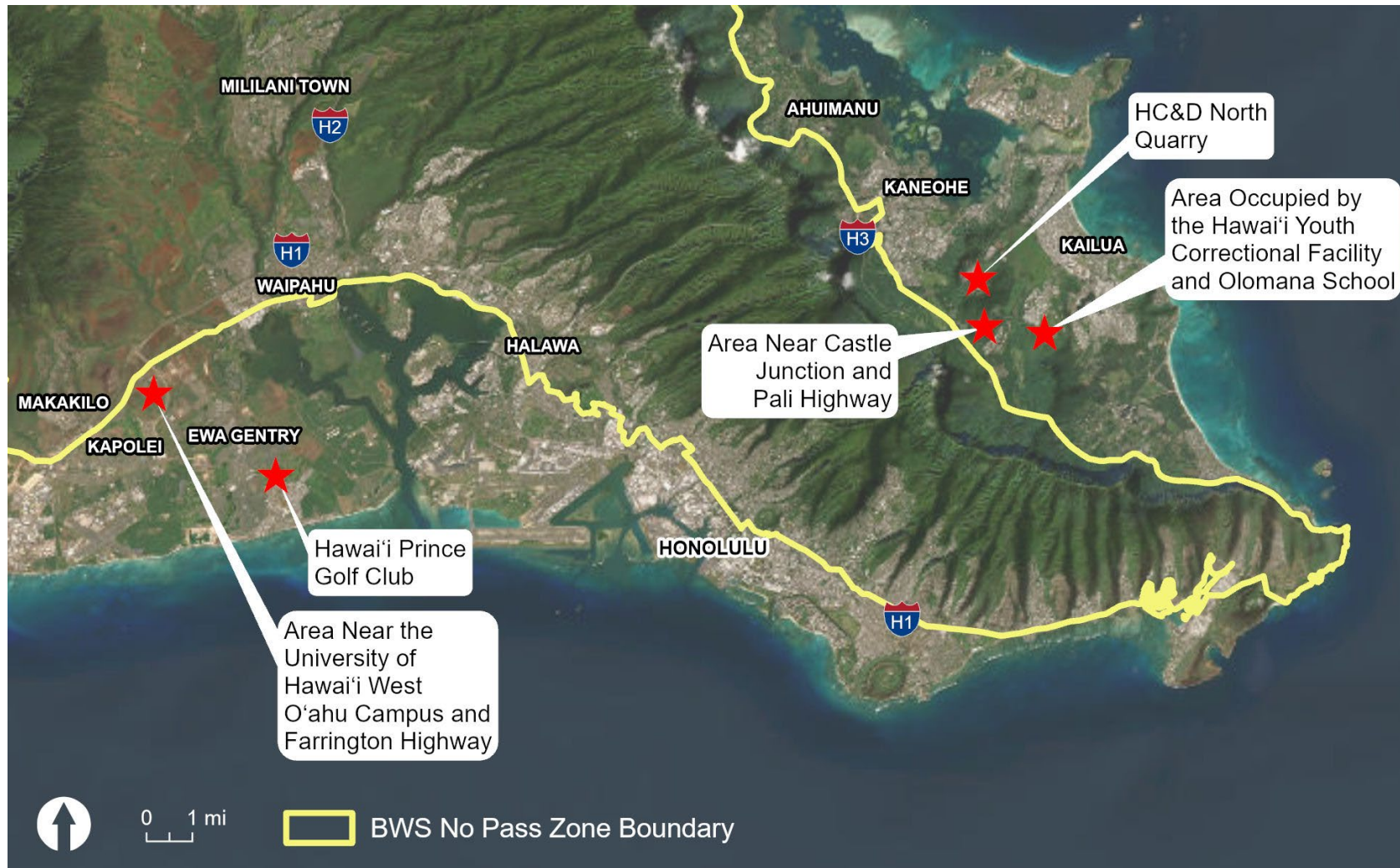


Step 4

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site









# Non-Restricted Areas Identified Under Step 3









# HC&D North Quarry

Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



# Area Occupied by the Hawai'i Youth Correctional Facility and Olomana School

Step 1

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/2-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 2

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/4-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 3

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 4

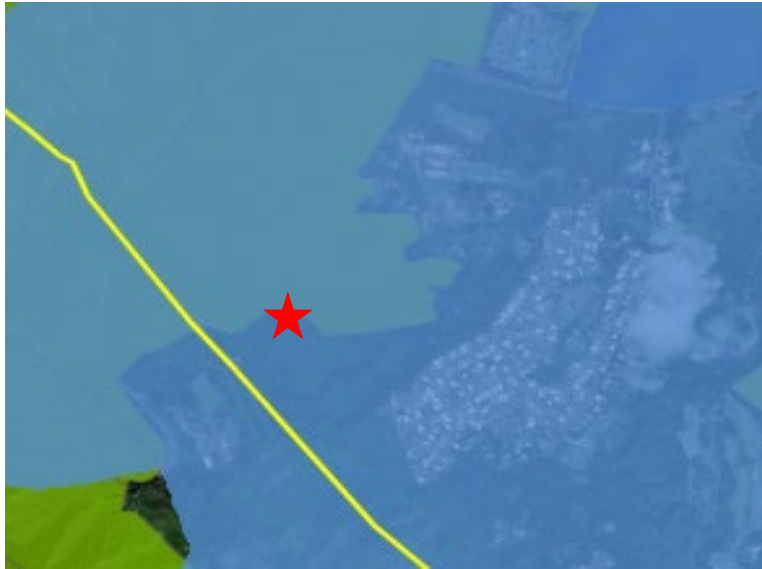
- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



# Area Near Castle Junction and Pali Highway

Step 1

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/2-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 2

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/4-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 3

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



Step 4

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



# Hawai'i Prince Golf Club

## Step 1

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/2-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



## Step 2

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- 1/4-Mile Buffer Zone (Act 73)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site



## Step 3

- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- Conservation District (Act 73)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site









## Step 4

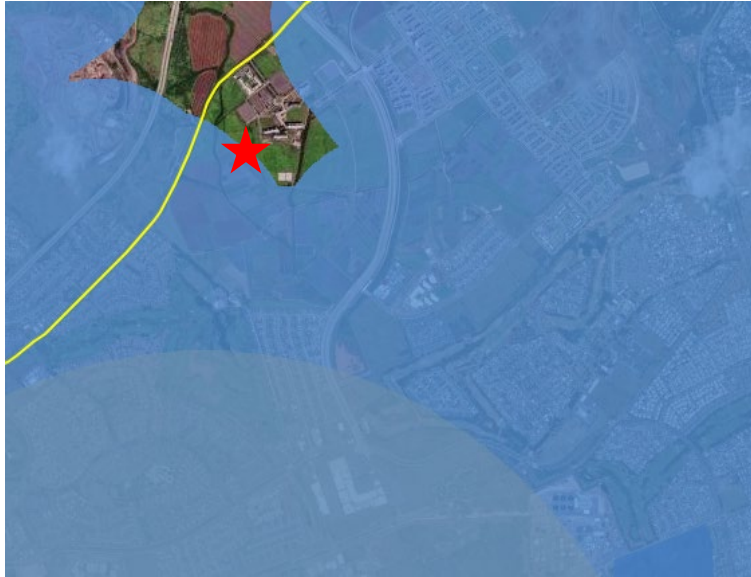
- Airport Buffer (Subtitle D)
- Tsunami Zone (HAR Title 11)
- BWS No Pass Zone Boundary
- ★ Non-Restricted Area/Potential Landfill Site









# Area Near the University of Hawai'i West O'ahu Campus and Farrington Highway

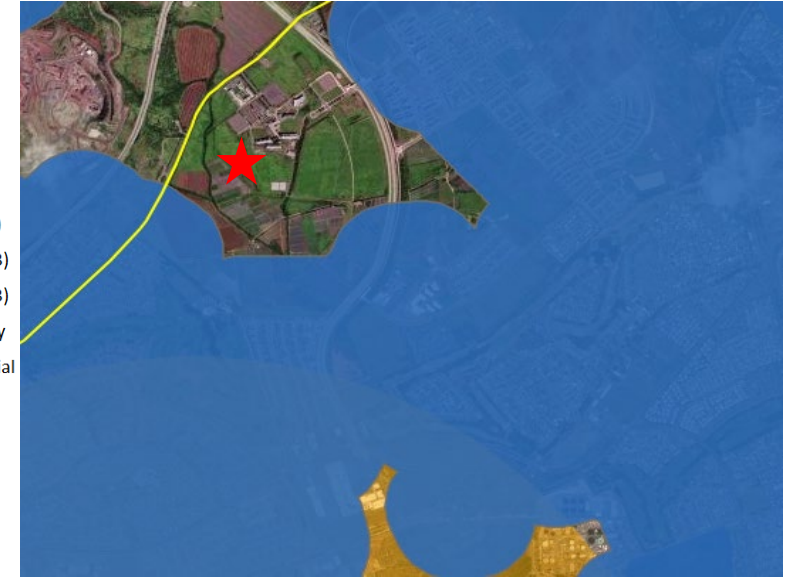
## Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








## Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







## Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



## Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site

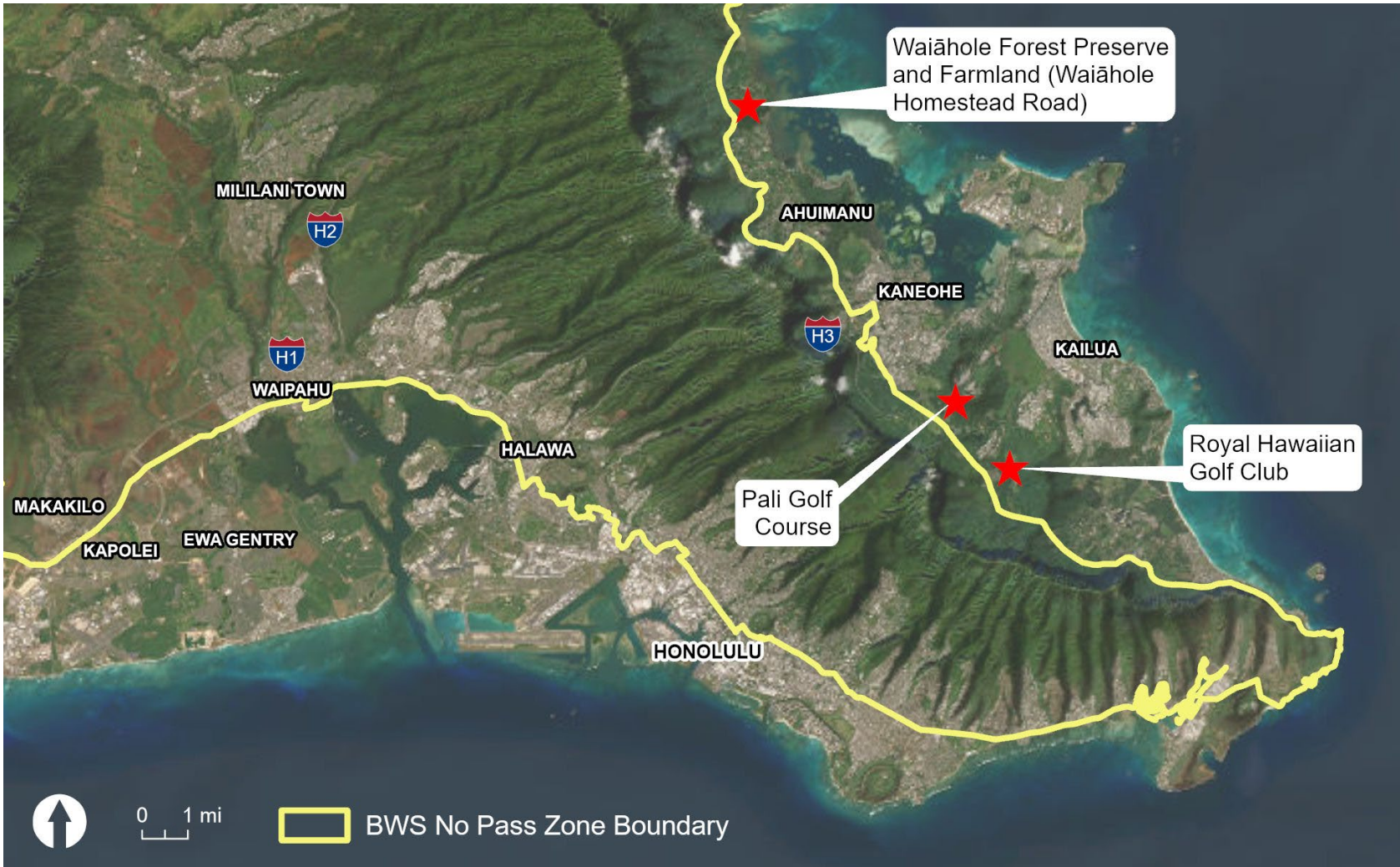




# Attachment B







Identified Non-Restricted  
Areas Under 100 Acres

# Identified Non-Restricted Areas Under 100 Acres









# Pali Golf Course

## Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








## Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







## Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site









## Step 4

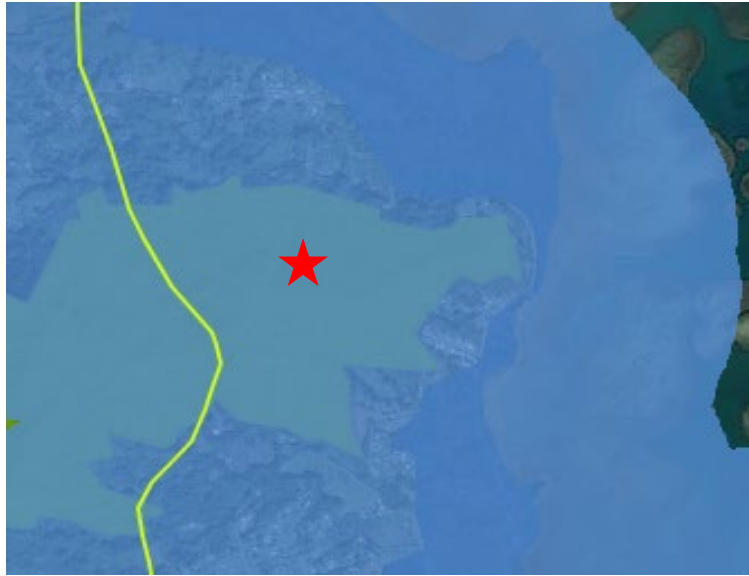
-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site









# Waiāhole Forest Preserve and Farmland (Waiāhole Homestead Road)

Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








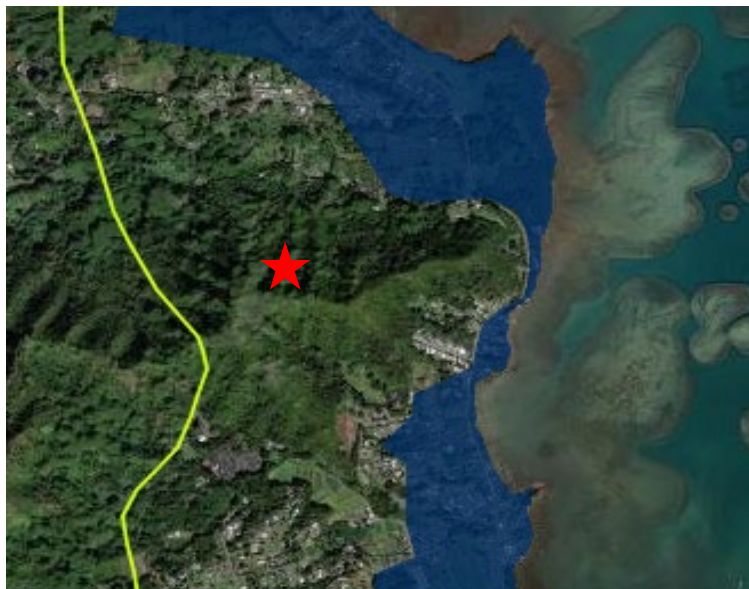
Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







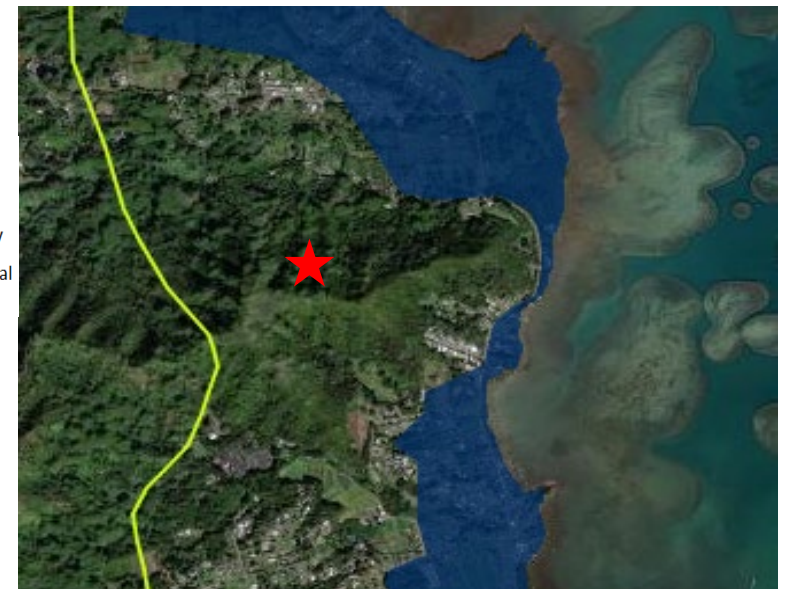
Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site









Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site









# Royal Hawaiian Golf Club

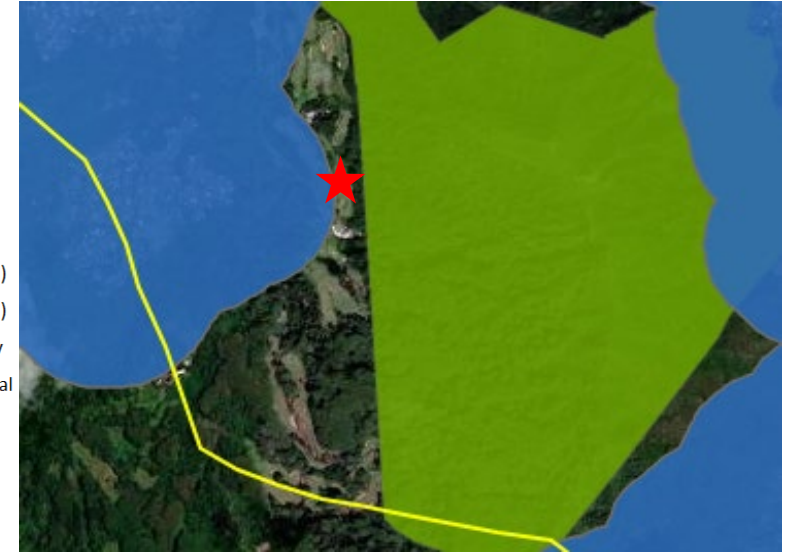
Step 1

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/2-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site








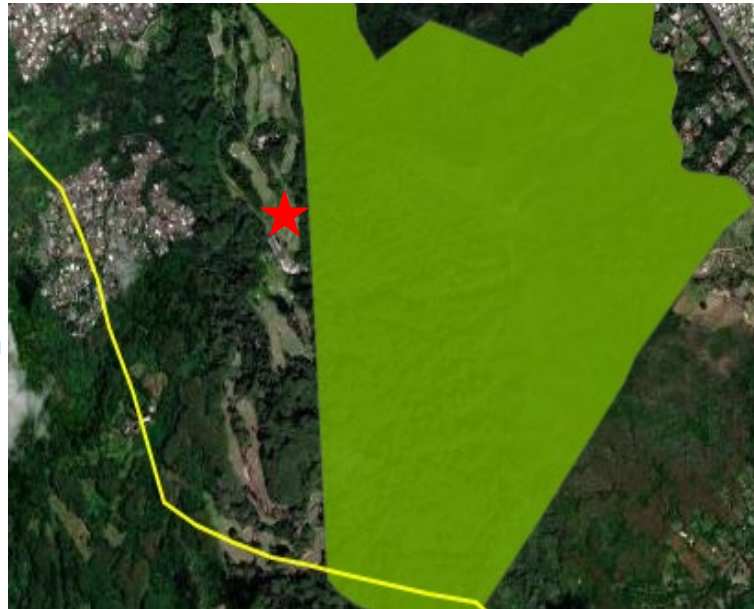
Step 2

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  1/4-Mile Buffer Zone (Act 73)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site







Step 3

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  Conservation District (Act 73)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site



Step 4

-  Airport Buffer (Subtitle D)
-  Tsunami Zone (HAR Title 11)
-  BWS No Pass Zone Boundary
-  Non-Restricted Area/Potential Landfill Site

