

# **Conservation District Use Permit Application**

## **PROPOSED MAKAI HĀNA LANDFILL CLEAN-UP AND CLOSURE (TMK (2)1-3-006:012 (por.) and 007 (por.))**

**Prepared for:**

**County of Maui,  
Department of Environmental Management**

**July 2016**

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by Munekiyo Hiraga**



# **Conservation District Use Permit Application for Proposed Makai Hāna Landfill Clean-up and Closure**

**(TMK (2)1-3-006:012 (por.) and 007 (por.))**

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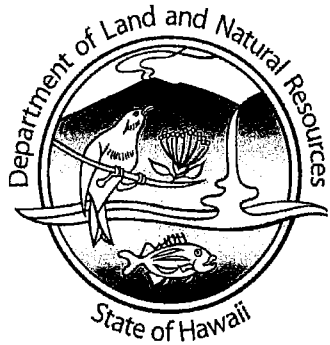
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# **I. CONSERVATION DISTRICT USE APPLICATION**



## CONSERVATION DISTRICT USE APPLICATION (CDUA)

*All permit applications shall be prepared pursuant to HAR 13-5-31*

File No.:

Acceptance Date:

180-Day Expiration Date:

Assigned Planner:

*for DLNR Use*

**PROJECT NAME:** Proposed Makai Hāna Landfill Clean-Up and Closure

Conservation District Subzone:

Limited

Identified Land Use:

Limited Subzone pursuant to Hawai'i Administrative Rules (HAR) §13-5-22, P-8 Structures and Land Uses, Existing (D-1) *Major alteration of existing structures, facilities, uses, and equipment, to topographical features which are different from the original use or different from what was allowed under the existing permit. See Exhibit "1".*

*(Identified Land Uses are found in Hawai'i Administrative Rules (HAR) §13-5-22 through §13-5-25)*

Project Address: Waikoloa Road, Hāna, Maui, Hawai'i

Tax Map Key(s): (2)1-3-006:012 (por.) and 007 (por.)

Ahupua'a: Kawaipapa

District:

Hāna

County: Maui

Island:

Maui

Proposed Commencement Date: 2016/2017

Proposed Completion Date: 2020

Estimated Project Cost: \$5 million

**TYPE OF PERMIT SOUGHT:** ☒ **Board Permit** ☐ **Departmental Permit**

☐ Temporary Variance (*ref 13-5-36*)

☐ Site Plan Approval (*ref §13-5-38*)

*Note: The two items on the left do not require that a full CDUA be filled out. Please complete the first four pages of this application and refer to the relevant HAR sections for the required documentation.*

### ATTACHMENTS *(where applicable)*

~~\$2,500.00~~ Application Fee (*ref §13-5-32 through 34*)

\$ **N/A** Public Hearing Fee (\$250 plus publication costs; *ref §13-5-40*)

☒ 20 copies of CDUA for Board and Departmental Permits (5 hard + 15 hard or digital copies)

☐ Management Plan or Comprehensive Management Plan (*ref §13-5-39 and Chapter 13-5 Exhibit 3*)

☒ Final Environmental Assessment or Draft / Final Environmental Impact Statement (**See Attachment "1"**)

☐ Special Management Area Determination (*ref Hawai'i Revised Statutes (HRS) 205A*)

☐ Shoreline Certification (*ref §13-5-31 (a) (8)*) if land use is subject to coastal hazards.

☐ Kuleana documentation (*ref §13-5-31 (j)*) if applying for a non-conforming kuleana use.

☐ Boundary Determination (*ref §13-5-17*) if land use lies within 50 feet of a subzone boundary.

## REQUIRED SIGNATURES

### Applicant

Name: Stewart Stant

Title; Agency: Director, County of Maui, Department of Environmental Management

Mailing Address: 2050 Main Street, Suite 2B  
Wailuku, Hawai'i 96793

Contact Person & Title: Elaine Baker, Engineer

Phone: (808) 270-7875

Email: Elaine.Baker@co.maui.hi.us

Interest in Property: Conveyed to County of Maui through Executive Order No. 3304 and Action of BLNR on May 13, 2011 (See **Exhibit "2"** and **Exhibit "3"**)

Signature:  Date: 7/7/16

*Signed by an authorized officer if for a Corporation, Partnership, Agency or Organization*

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### Landowner (if different than the applicant)

Name: State of Hawai'i

Title; Agency: Department of Land and Natural Resources

Mailing Address: P.O. Box 621  
Honolulu, Hawai'i 96809-0621

Phone: (808) 587-0400

Email: dlnr@hawaii.gov

Executive Order No. 3304 and BLNR action dated 5/13/11

Signature: (Refer to **Exhibit "2"** and **Exhibit "3"**) Date: \_\_\_\_\_

*For State and public lands, the State of Hawai'i or government entity with management control over the parcel shall sign as landowner.*

---

### Agent (See Exhibit "4")

Agency: Munekiyo Hiraga

Contact Person & Title: Colleen Suyama, Senior Associate

Mailing Address: 305 High Street, Suite 104  
Wailuku, Hawai'i 96793

Phone: (808) 244-2015

Email: planning@munekiyohiraga.com

Signature:  Date: 7/7/16

### For DLNR Managed Lands

State of Hawai'i

Chairperson, Board of Land and Natural Resources

State of Hawai'i

Department of Land and Natural Resources

P.O. Box 621

Honolulu, Hawai'i 96809-0621

Signature: Not Applicable Date: \_\_\_\_\_

## PROPOSED USE

Total size/area of proposed use (indicate in acres or sq. ft.): 6.4 acres

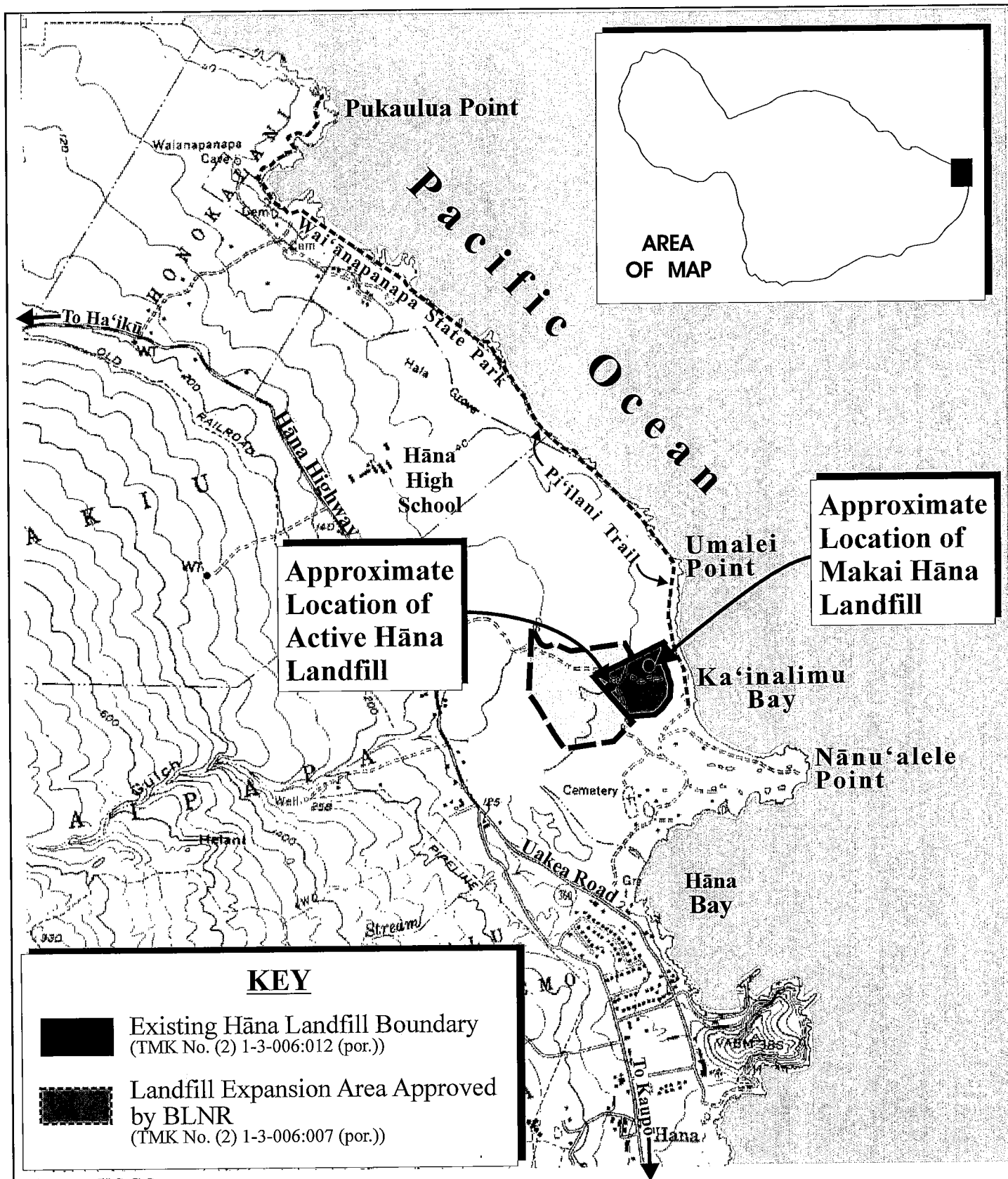
Please provide a detailed description of the proposed land use(s) in its entirety. Information should describe what the proposed use is; the need and purpose for the proposed use; the size of the proposed use (provide dimensions and quantities of materials); and how the work for the proposed use will be done (methodology). If there are multiple components to a project, please answer the above for each component. Also include information regarding secondary improvements including, but not limited to, grading and grubbing, placement of accessory equipment, installation of utilities, roads, driveways, fences, landscaping, etc.

Attach any and all associated plans such as a location map, site plan, floor plan, elevations, and landscaping plans drawn to scale (*ref §13-5-31*).

The Hāna Landfill on Maui is comprised of two (2) sections separated by Waikoloa Road. The active Hāna Landfill is located on approximately 13.2 acres mauka of Waikoloa Road while the original dump site (Makai Hāna Landfill) is located on approximately 6.4 acres makai of Waikoloa Road. See **Figure 1** and **Figure 2**. The Makai Hāna Landfill is located within the State Land Use "Conservation" District.

To bring the Makai Hāna Landfill into compliance with Federal and State Department of Health regulations, the Department of Environmental Management proposes to remove approximately 90,000 cubic yards (c.y.) of waste and haul it across Waikoloa Road to the active Hāna Landfill. Materials that can be recycled or reused will be handled accordingly.

The removal of waste will occur over a period of three (3) years using County resources and personnel or contractors. The waste excavation and removal will be conducted in three (3) phases in order to minimize the area of exposed waste. Each phase will include removal of vegetation and cover soil, excavation of waste, removal of recyclable scrap metal, and hauling waste to the active landfill for disposal. After all refuse has been removed, the site will be graded, erosion controls will be installed, and the site will be planted with an appropriate mixture of grasses. See **Exhibit "5"** (Final Closure Plan) and **Exhibit "6"** (Project Plans).



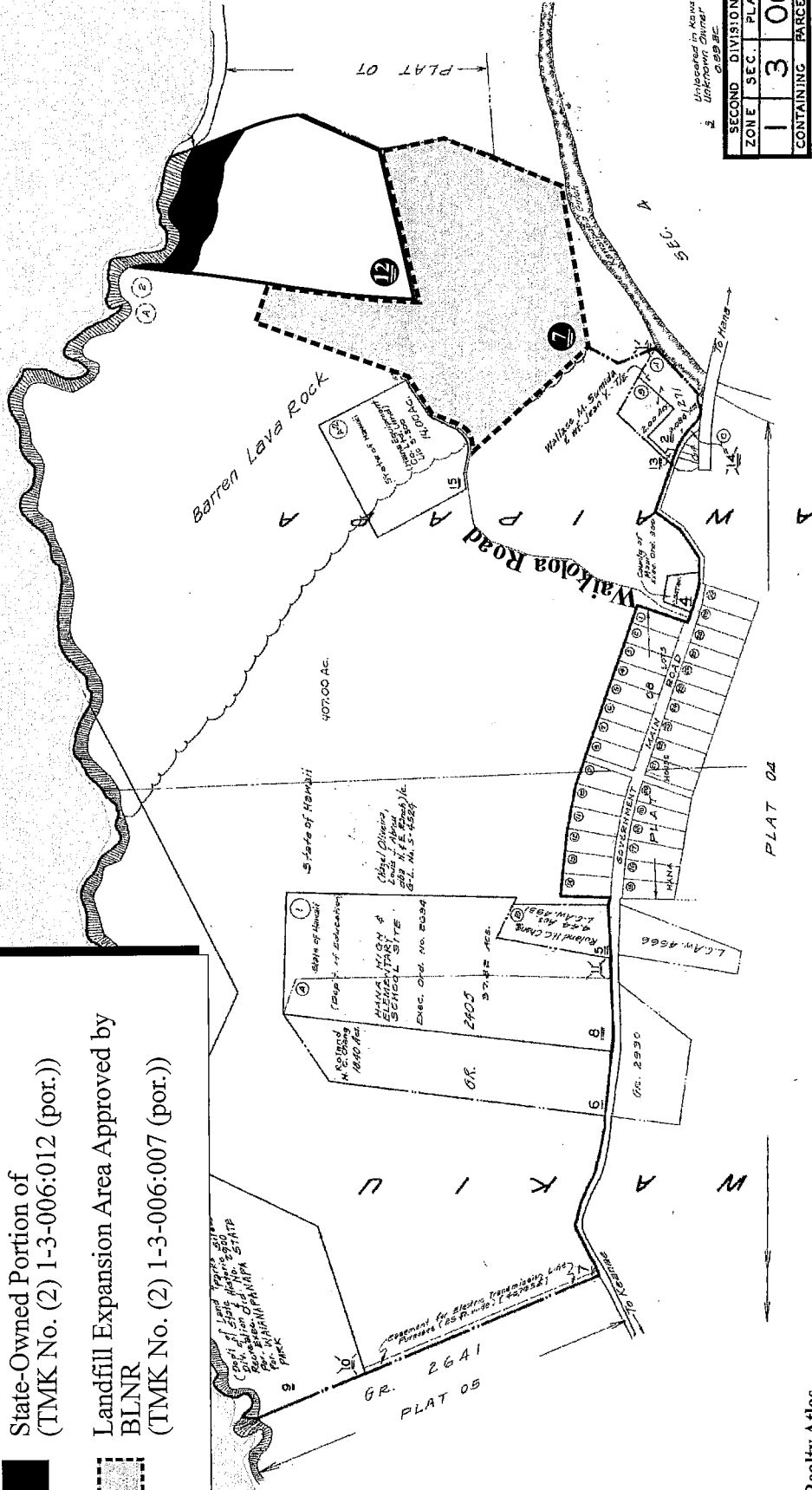
# KEY

Existing Hāna Landfill Boundary  
(TMK No. (2) 1-3-006:012 (por.))

State-Owned Portion of  
(TMK No. (2) 1-3-006:012 (por.))

Landfill Expansion Area Approved by  
BLNR  
(TMK No. (2) 1-3-006:007 (por.))

# Pacific Ocean



Source: Realty Atlas

Figure 2 Proposed Makai Hāna Landfill Clean-Up and Closure  
Site Location Map



Prepared for: County of Maui, Department of Environmental Management

## EXISTING CONDITIONS

Please describe the following, and attach maps, site plans, topo maps, colored photos, and biological or archaeological surveys as appropriate:

A Hawai'i Revised Statutes Final Environmental Assessment (EA) has been prepared for the project by the County of Maui, Department of Environmental Management to assess existing conditions within the project site and to evaluate potential impacts associated with the proposed action. The Final EA and Finding of No Significant Impact (FONSI) determination for the project was published on January 23, 2016 in the Office of Environmental Quality Control's (OEQC) Environmental Notice bulletin. A copy of the Final EA is included in **Attachment "1"** of this application.

Existing access to site:

Access to the site is from Waikoloa Road, which separates the Makai Hāna Landfill and the Active Hāna Landfill. See **Figure 3**.

Existing buildings/structures:

There are no structures located within the Makai Hāna Landfill site and State Conservation District. However, there are several existing structures located near the active portion of the Hāna Landfill, which is just makai of Waikoloa Road. Refer to **Figure 3**.

Existing utilities (electrical, communication, gas, drainage, water & wastewater):

There are no utilities to the Active Hāna Landfill. Electrical power is provided by photovoltaic panels with a gasoline fuel generator as backup. Communication is by radio and mobile phones. Water is hauled to the site by a water truck that is used for non-drinking purposes, such as dust control. An individual toilet is onsite served by an individual wastewater system (IVS).

Drainage at the Active Hāna Landfill is handled by an existing drainage basin. Temporary Construction Best Management Practices, such as, silt fences, and berms to channel water to a temporary retention basin will be implemented to minimize impacts resulting from erosion from stormwater flows.

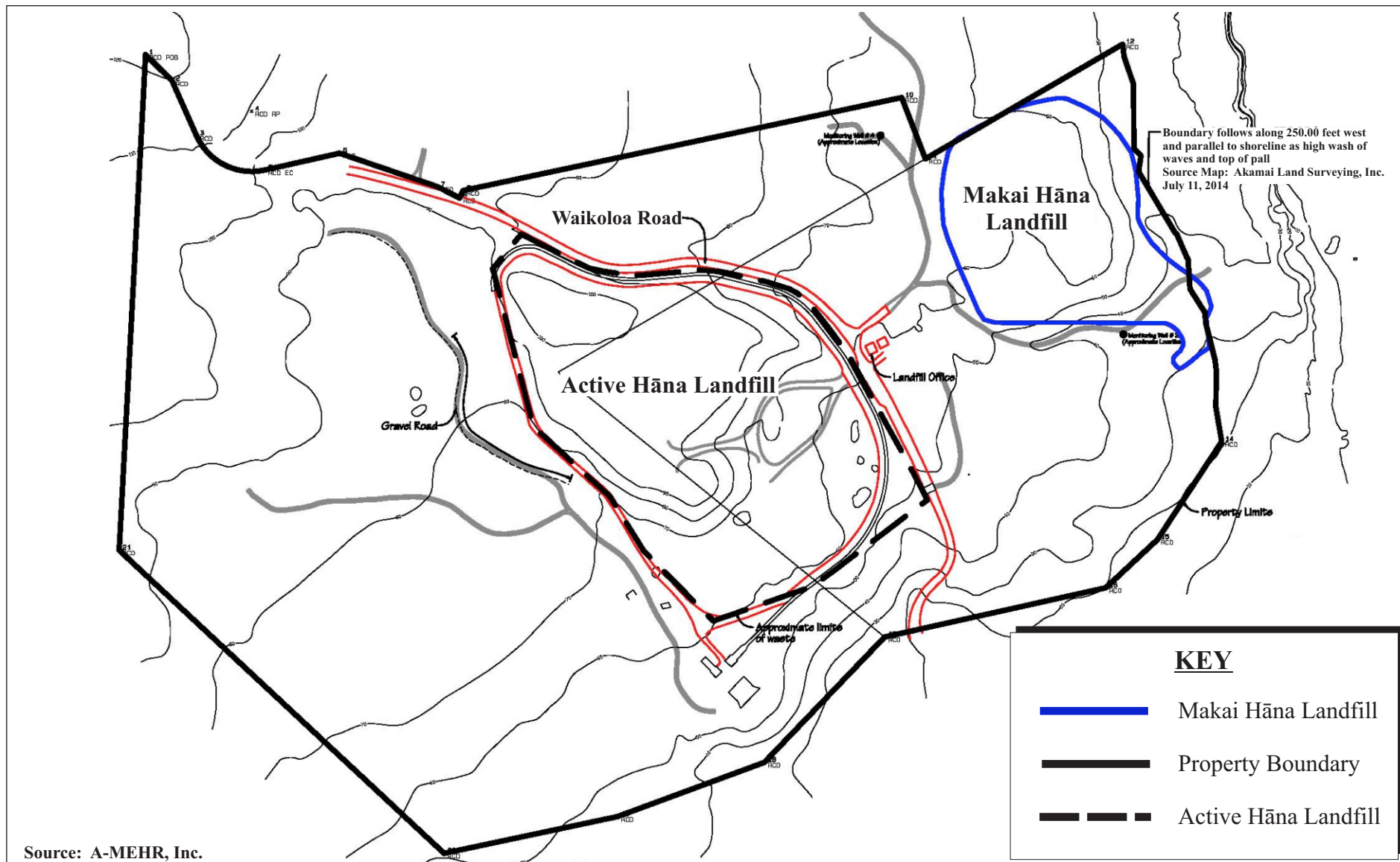
Physiography (geology, topography, & soils):

Underlying the project site is soil of the Hāna-Makaalae-Kailu association. This area contains moderately deep and deep, gently sloping to steep, well-drained soils. The texture ranges from moderately fine to fine subsoils. Lava flows, a'a (rLW), underlay the project site, consisting of geologically recent lava flows. (See **Figure 4**, Soil Classification Map). The flows are a mass of clinkery, hard, glassy, sharp pieces of lava, making the land difficult to traverse.

Topography underlying the landfill slopes gently in a west to east direction and is not subject to landslides or other types of mass movement.

Hydrology (surface water, groundwater, coastal waters, & wetlands):

There are no wetlands, streams or reservoirs located within the immediate vicinity of the subject property. The nearest stream is Kawaipapa Stream located approximately 1,500 feet to the south and west of the landfill. The shoreline is located approximately 250 feet from the Makai Hāna Landfill.



**Figure 3** Proposed Makai Hāna Landfill Clean-Up and Closure  
Site Location Map

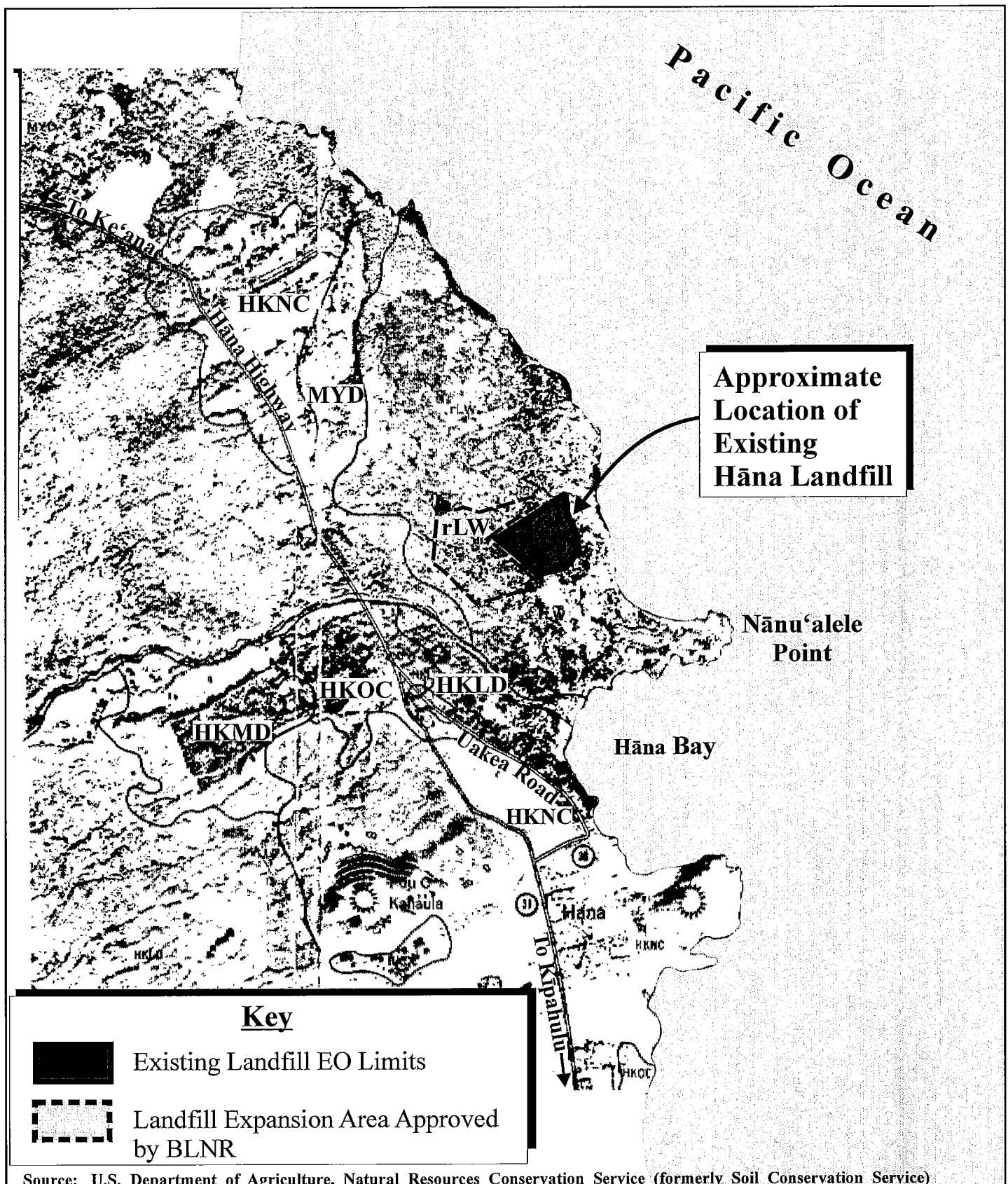
NOT TO SCALE



Prepared for: County of Maui, Department of Environmental Management







Source: U.S. Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service)

**Figure 4 Proposed Makai Hana Landfill Clean-Up and Closure Soil Classification Map**

0 500 1000 2000 Feet

**MUNEKIYO HIRAGA**

Prepared for: County of Maui, Department of Environmental Management

A-MEHR\HanaSolidWaste\Applications\CDUA\Soil Classification

The basal groundwater underneath the landfill occurs in the Honomaunu formations. The aquifer beneath the landfill is part of the Kawaipapa System of Hāna sector.

Flora & fauna (indicate if rare or endangered plants and/or animals are present):

Flora and fauna on the project area is comprised mostly of non-native species with a few common native species scattered about. No federally listed endangered or threatened species or their habitat were found on the project area. Refer to **Attachment "1"**.

Natural hazards (erosion, flooding, tsunامي, seismic, etc.):

The Flood Insurance Rate Maps No. 1500030660E and 1500030670E for this region indicates that the majority of the landfill property is located in Flood Zone X, an area of minimal flooding. Refer to **Attachment "1"**. Two (2) small areas along the eastern boundary of the Makai Hāna Landfill are in Zone AE, a special flood hazard area subject to inundation with the one (1) percent annual flood chance with a base flood elevation of approximately 17 feet. The proposed clean-up will occur at elevations in excess of 20 feet above mean sea level. A Special Flood Hazard Development Permit will be obtained from the County of Maui Department of Planning, as applicable.

The Makai Hāna Landfill is located beyond the reaches of the tsunami inundation zone.

Historic & cultural resources:

An archaeological assessment was prepared by Xamanek Researches, LLC in 2015 and did not identify any historic or cultural resources along the boundary of the Makai Hāna Landfill. However, the report noted that given the near coastal location of the site, as well as the fact that it was not possible to test within much of the physical footprint of the Makai Hāna Landfill, archaeological monitoring is recommended during initial earthmoving activities around the boundaries of the old landfill, and periodically when the operations are near the original land surface elevation. Refer to **Attachment "1"**. By letter dated December 24, 2015, the State Historic Preservation Division (SHPD) accepted the archaeological assessment report and concurred with the recommendation for archaeological monitoring. See **Exhibit "7"**. An Archaeological Monitoring Plan will be submitted to SHPD for review and acceptance.

## EVALUATION CRITERIA

**The Department or Board will evaluate the merits of a proposed land use based upon the following eight criteria (*ref §13-5-30(c)*)**

1. The purpose of the Conservation District is to conserve, protect, and preserve the important natural and cultural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare. (*ref §13-5-1*) How is the proposed land use consistent with the purpose of the conservation district?

The Makai Hāna Landfill was established in the Conservation District prior to the State Land Use law and discontinued around 2003. The proposed clean-up and closure of the Makai Hāna Landfill will meet the purpose of the Conservation District and bring the landfill operations into compliance with current Federal and State Department of Health (DOH) regulations. The proposed closure of the Makai Hāna Landfill is consistent with the purpose of the Conservation District.

2. How is the proposed use consistent with the objectives of the subzone of the land on which the land use will occur? (*ref §13-5-11 through §13-5-15*)

The Office of Conservation and Coastal Lands (OCCL) has determined that the project is in the limited subzone and a Conservation District Use Permit (CDUP) is required for "major alteration of existing structures, facilities, uses, and equipment, to topographical features which are different from the original use or different from what was allowed under the existing permit." Refer to **Exhibit "1"**. As such, the proposed clean-up and closure of the Makai Hāna Landfill is consistent with the objectives of the subzone, particularly as it involves removal of previously dumped waste from the Conservation District.

3. Describe how the proposed land use complies with the provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management" (*see 205A objectives on p.9*).

The Makai Hāna Landfill is located in the Special Management Area (SMA) and a SMA Use Permit will be required prior to initiation of the removal and closure. An SMA application has been filed and is currently under process with the County of Maui, Department of Planning. A public hearing was held with the Hāna Advisory Committee on June 30, 2016. A copy of the SMA Use Permit will be provided to OCCL upon completion of the SMA application process. An assessment of the proposed project's consistency with Chapter 205A, HRS is provided in Chapter III (F and G) of the Final EA. Refer to **Attachment "1"**.

4. Describe how the proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.

The removal of waste and closure of the Makai Hāna Landfill is not anticipated to cause substantial adverse impact to existing natural resources within the surrounding area, community, or region. It will be a benefit to relocate the waste to the active landfill outside of the Conservation District to be compliant with Federal and State regulations.

As noted previously, a Final EA and FONSI determination for the project were published in the January 23, 2016 OEQC Environmental Notice.

5. Describe how the proposed land use, including buildings, structures and facilities, is compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

The project is limited to the removal of waste to the adjacent active landfill site and clean-up/closure of the Makai Hāna Landfill, and is compatible with the locality and surrounding areas.

6. Describe how the existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon.

Once closure of the Makai Hāna Landfill is completed, the area will be landscaped with grass. The site will blend into the natural surroundings and open space characteristics of the Conservation District.

7. If applicable, describe how subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.

The removal and closure of the Makai Hāna Landfill will not involve the subdivision of land or increase the intensity of uses in the Conservation District.

8. Describe how the proposed land use will not be materially detrimental to the public health, safety and welfare.

The removal and closure of the Makai Hāna Landfill will not be materially detrimental to the public health, safety, and welfare. It will be compliant with current Federal and State regulations.

## CULTURAL IMPACTS

Articles IX and XII of the State Constitution, other state laws, and the courts of the State, require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups.

Please provide the identity and scope of cultural, historical, and natural resources in which traditional and customary native Hawaiian rights are exercised in the area.

As noted previously, an Archaeological Assessment did not identify any historic or cultural resources along the boundary of the Makai Hāna Landfill. However, the report noted that given the near coastal location of the site, as well as the fact that it was not possible to test within much of the physical footprint of the Makai Hāna Landfill, archaeological monitoring is recommended during initial earthmoving activities around the boundaries of the old landfill, and periodically when the operations are near the original land surface elevation. By letter dated December 24, 2015, the SHPD accepted the archaeological assessment report and concurred with the recommendation for archaeological monitoring. Refer to **Exhibit "7"**. An Archaeological Monitoring Plan will be submitted to SHPD for review and acceptance.

A cultural impact assessment was also carried out and found that although the Hāna District is noted as being significant from a historical and cultural perspective, the lands in the vicinity of the project site have been significantly altered through the landfill use. Portions of the nearby Pi'ilani Trail are located along the shoreline of the subject property outside of the area conveyed to the County of Maui through Executive Order (EO) No. 3304. Access to and along the shoreline from the Pi'ilani Trail will continue and is not expected to be impacted by the proposed clean-up and closure of the Makai Hāna Landfill.

Identify the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by the proposed action.

Portions of the Pi'ilani Trail outside of EO No. 3304 traverse the shoreline area fronting the project site to the east. The Pi'ilani Trail is not within the existing boundaries of EO No. 3304 and the landfill site, and, will not be impacted by the proposed clean-up and closure of the Makai Hāna Landfill. The Makai Hāna Landfill is approximately 250 feet from the shoreline.

What feasible action, if any, could be taken by the Board of Land and Natural Resources in regards to your application to reasonably protect Native Hawai'i rights?

As noted previously, archaeological monitoring will be implemented during the project to ensure protection of any significant inadvertent discoveries that may be made during construction. Further, access to the nearby Pi'ilani Trail will not be impacted by the proposed clean-up and closure of the Makai Hāna Landfill. As such, the proposed project is not expected to present significant impacts on native Hawaiian rights.

## OTHER IMPACTS

Does the proposed land use have an effect (positive/negative) on public access to and along the shoreline or along any public trail?

As discussed previously, public access on the Pi'ilani Trail will continue and will not be adversely impacted by the proposed clean-up and closure of the Makai Hāna Landfill.

Does the proposed use have an effect (positive/negative) on beach processes?

The Makai Hāna Landfill is located approximately 250 feet from the shoreline. Best Management Practices (BMPs) will be implemented during the proposed clean-up and closure project to minimize impacts on coastal resources.

Will the proposed use cause increased sedimentation?

Temporary drainage control measures, such as silt fences and berms to channel stormwater runoff from exposed surfaces to temporary retention basins will be implemented as part of the project to minimize sedimentation impacts. Once the clean-up and closure is completed, erosion controls and revegetation of slopes will be implemented to facilitate natural drainage of the area.

Will the proposed use cause any visual impact on any individual or community?

The proposed project is limited to the clean-up and closure of the Makai Hāna Landfill. Once completed, the area will be landscaped with grass. The areas surrounding the Hāna Landfill site are vacant lands much of which is owned by the State of Hawai'i. As such, the clean-up and closure is not expected to have a significant visual impact on any individual or community.

Please describe any sustainable design elements that will be incorporated into the proposed land use (*e.g. the use of efficient ventilation and cooling systems; renewable energy generation; sustainable building materials; permeable paving materials; efficient energy and water systems; efficient waste management systems; etc.*).

The proposed action is limited to the clean-up and closure of the Makai Hāna Landfill and does not include construction of any new structures. As such, there are no sustainable design elements being incorporated within the project.

If the project involves landscaping, please describe how the landscaping is appropriate to the Conservation District (*e.g. use of indigenous and endemic species; xeriscaping in dry areas; minimizing ground disturbance; maintenance or restoration of the canopy; removal of invasive species; habitat preservation and restoration; etc.*)

Landscaping for the proposed project will be limited to re-vegetation of the Makai Hāna Landfill area once the waste materials have been removed and transferred to the active landfill. The impacted area will be landscaped with grass similar to the existing surrounding vegetation.

Please describe Best Management Practices that will be used during construction and implementation of the proposed land use.

Temporary drainage control measures such as silt fences and berms to channel stormwater runoff from exposed surfaces to temporary retention basins will be implemented during the project. Once the clean-up and closure is completed, erosion controls and revegetation of slopes will be implemented to facilitate natural drainage of the area.

Please describe the measures that will be taken to mitigate the proposed land use's environmental and cultural impacts.

As noted previously, appropriate BMPs will be implemented during clean-up and closure to minimize impacts on the surrounding environment. Further, as a precautionary measure, archaeological monitoring will be conducted during the clean-up and closure to ensure protection of any significant inadvertent discoveries made during the waste removal activities. Access to and use of the Pi'ilani Trail will not be impacted by the project due to its location outside of the area of EO 3304 that conveyed the property to the County of Maui and its distance (approximately 250 feet) from the shoreline.

## **SINGLE FAMILY RESIDENTIAL STANDARDS Not Applicable**

Single Family Residences must comply with the standards outlined in HAR Chapter 13-5, Exhibit 4. Please provide preliminary architectural renderings (e.g. building foot print, exterior plan view, elevation drawings; floor plan, etc.) drawn to scale.

### **SIZE OF LOT**

	Existing	Proposed	Total
Proposed building footprint			
Paved areas/ impermeable surfaces			
Landscaped areas			
Unimproved areas			

SETBACKS      Front:                      Side:                      Back:

### **SHORELINE PROPERTIES**

Average Lot Depth (ALD):                      Average annual coastal erosion rate:

Minimum shoreline setback based on Exhibit 4: Actual shoreline setback or proposed structure:

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### **MAXIMUM DEVELOPABLE AREA**

The Maximum Developable Area includes all floor areas under roof, including first, second, and third stories, decks, pools, saunas, garage or carport, and other above ground structures.

Maximum Developable Area based on Exhibit 4:

Actual Developable Area of proposed residence:

Actual height of the proposed building envelope as defined in Exhibit 4:

---

### **COMPATIBILITY**

Provide justification for any propose deviation from the established residential standards.

How is the design of the residence compatible with the surrounding area?

If grading is proposed, include a grading plan which provides the amount of cut and fill. Has grading or contouring been kept to a minimum?



## CHAPTER 205A-COASTAL ZONE MANAGEMENT

Land uses are required to comply with the provisions and guidelines contained in Chapter 205A, Hawai'i Revised Statutes (HRS), entitled "Coastal Zone Management," as described below:

- **Recreational resources:** Provide coastal recreational opportunities accessible to the public.
- **Historic resources:** Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
- **Scenic and open space resources:** Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
- **Coastal ecosystems:** Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.
- **Economic uses:** Provide public or private facilities and improvements important to the State's economy in suitable locations.
- **Coastal hazards:** Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.
- **Managing development:** Improve the development review process, communication, and public participation in the management of coastal resources and hazards.
- **Public participation:** Stimulate public awareness, education, and participation in coastal management.
- **Beach protection:** Protect beaches for public use and recreation.
- **Marine resources:** Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

## MANAGEMENT PLAN REQUIREMENTS NOT APPLICABLE

Certain land uses require that a Management Plan be approved by the Board of Land and Natural resources. The Management Plan can be processed concurrently with the Conservation District Use Application and must be consistent with HAR Chapter 13-5, Exhibit 3. Please attach the proposed Management Plan as a separate document.

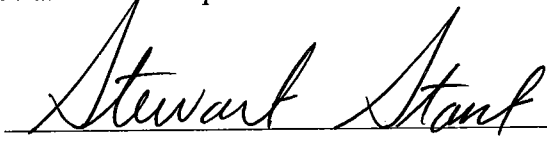
Pursuant to the above, Management Plans must include:

- General description of the proposed use (e.g. forestry, fishpond, astronomy, aquaculture, agriculture)
- Project location (e.g. island maps, location map, site plan (drawn to scale))
- Natural resource assessment, including descriptive information about the natural resources in the project vicinity such as biological, archaeological, cultural, geological, coastal, recreational, and scenic resources, where applicable. The presence of any threatened or endangered species shall be disclosed.
- A description of best management practices used during project construction and implementation (e.g. mitigation measures).
- A description of the best management practices to be used during the lifetime of the project (e.g. mitigation measures)
- A description of the conservation methods as applications to be used in the short term and long term (e.g. mitigation measures)
- Description of existing uses and facilities, if any.
- Description of proposed facilities and uses, including phases, if applicable.
- Project schedule including description of project sequencing from project construction to project completion and on-going maintenance plans, including a description and timing of natural resource monitoring and maintenance plans.
- A description of the annual reporting requirements.
- Any other information or data, as required by the department.

## CERTIFICATION

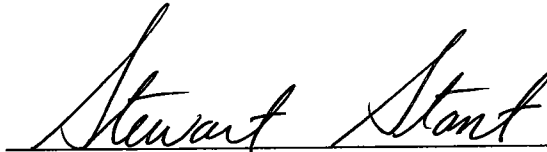
I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application and all attachments and exhibits is complete and correct. I understand that the failure to provide any requested information or misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, or for suspending or revoking a permit issued on the basis of such misrepresentations, or for seeking of such further relief as may seem proper to the Land Board.

I hereby authorize representatives of the Department of Land and Natural Resources to conduct site inspections on my property. Unless arranged otherwise, these site inspections shall take place between the hours of 8:00 a.m. and 4:30 p.m.

  
\_\_\_\_\_  
*Signature of authorized agent(s) or if no agent, signature of applicant*

## AUTHORIZATION OF AGENT

I hereby authorize Munekiyo Hiraga to act as my representative and to bind me in all matters concerning this application.

  
\_\_\_\_\_  
\_\_\_\_\_  
*Signature of applicant(s)*

## **II. EXHIBITS**

## **EXHIBIT 1.**

**August 18, 2015 Letter from Office  
of Conservation and Coastal Lands**

DAVID Y. IGE  
GOVERNOR OF HAWAII



RECEIVED

2015 AUG 20 AM 10:40



COUNTY OF MAUI  
DEPT. OF ENVIRONMENTAL & NATURAL RESOURCES  
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
OFFICE OF CONSERVATION AND COASTAL LANDS  
Post Office Box 621  
HONOLULU, HAWAII 96809

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

W. ROY HARDY  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

ref:OCCL:MC

Conf MA-15-128

Kyle K. Ginoza  
Department of Environmental Management  
2050 Main Street, Suite C  
Wailuku, Maui, HI 96793

Dear Mr. Ginoza,

SUBJECT: MAKAI HANA LANDFILL CLOSURE  
Kawaipapa, Hana, Maui  
TMK (2) 1-3-006:007 & 012

☐ SCAN  
DEPT. OF  
ENVIRONMENTAL  
MANAGEMENT

AUG 18 2015  
DIRECTOR ☒  
DEPUTY DIR. ☐  
PERS. ☐  
WWR ☐  
SW ☐  
SECTY. ☐  
☐  
☐

The Office of Conservation and Coastal Lands (OCCL), Department of Land and Natural Resources (DLNR) has reviewed the information you provided regarding the closure of the 6.4 acre Makai Hana Landfill.

The 29-acre Hana Garbage Dump Site was established by Executive Order in November 1985 to be under the control of the County of Maui. The makai boundary follows along 250 foot west and parallel to the shoreline and top of the coastal pali. Two areas were actively used for fill, one mauka of Waikoloa Road and in the State Land Use Agriculture District, and one makai of the road in the Limited Subzone of the State Land Use Conservation District.

The makai landfill is no longer active, and the County proposes to excavate the site and transfer the waste to the active mauka site.

The project will involve 99,500 cubic yards of excavation. This includes 89,200 cubic yards of subsurface waste and 10,300 cubic yards of topsoil. The excavated material will be moved across the street to the active Hana Landfill, which lies outside the Conservation District. The Makai Hana Landfill will be restored to its original topography. It is estimated that the project will be carried out in stages over a three year period.

There is an area of high uncertainty regarding the boundaries of the waste due to the complex terrain, and it is possible that vehicles have been disposed of outside the boundaries set by the Executive Order.

The County is preparing an environmental assessment for the project.

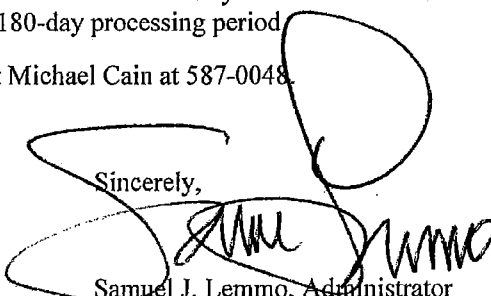
The project as described appears to be an identified land use in the Limited Subzone pursuant to Hawai'i Administrative Rules (HAR) §13-5-22, P-8 STRUCTURES AND LAND USES, EXISTING (D-1) *Major alteration of existing structures, facilities, uses, and equipment, to topographical features which are different from the original use or different from what was allowed under the existing permit.* This use requires a Conservation District Use Permit (CDUP) signed by the Board of Land and Natural Resources, who have the final authority to modify, grant, or deny any permit.

copy: Land Division, Chair

The application for the project can be processed simultaneously with the environmental assessment. However, please note that the maximum processing period for applications with our office is 180 days, and there is no mechanism to extend this. You will want to time your submittal so that it secures a Finding of No Significant Impact (FONSI) within this 180-day processing period.

If you have any questions please contact Michael Cain at 587-0048.

Sincerely,



Samuel J. Lemmo, Administrator  
Office of Conservation and Coastal Lands

## **EXHIBIT 2.**

**Executive Order No. 3304**



EXECUTIVE ORDER NO. 5-04

## Setting Aside Land for Public Purposes

By this Executive Order, I, the undersigned, Governor of the State of Hawaii, by virtue of the authority in me vested by Section 171-11, Hawaii Revised Statutes, and every other authority me hereunto enabling, do hereby order that the public land hereinafter described be, and the same is, hereby set aside for the following public purposes:

FOR HANA GARBAGE DUMP SITE, to be under the control and management of the County of Maui, a body corporate and politic of the State of Hawaii, being all of the lands situate at Kawaipapa, Hana, Maui, Hawaii, containing an area of 29.0 acres, more or less, TOGETHER WITH an easement for "roadway purposes", containing an area of 1.735 acres, more or less, all more particularly described in Exhibit "A" and delineated on Exhibit "B", both of which are attached hereto and made parts hereof, said exhibits being, respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 20,247 and dated August 21, 1985.

SUBJECT to the disapproval by the Legislature by two-thirds vote of either the Senate or the House of Representatives or by majority vote of both, in any regular or special session next following the date of this Executive Order.

In Witness Whereof, I have hereunto set my hand and caused the Great Seal of the State of Hawaii to be affixed.  
Done at the Capitol at Honolulu this 16th day of November, Nineteen Hundred and 85

George R. Rye  
Governor of the State of Hawaii

Approved as to form:

Deputy Attorney General

Dated: August 30, 1985



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES  
HONOLULU

August 12, 1985

C.S.F. No. 20,347

HANA GARBAGE DUMP SITE

Kaunapapa, Hana, Maui, Hawaii

Being portion of the Government Land of Kaunapapa.

Beginning at the west corner of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KAUAI" being 5091.44 feet North and 2823.13 feet West, thence running by azimuths measured clockwise from True South:-

1. 240° 03' 1512.55 feet along Lot A-1-A of the Government Land of Kaunapapa to a point 250.00 feet west from highwater mark at seashore;
2. Thence along the remainder of the Government Land of Kaunapapa, 250.00 feet west and parallel to highwater mark at seashore, the direct azimuth and distance being:  
343° 14' 970.13 feet;
3. 33° 30' 287.00 feet along Grant 8237 to Haiku Fruit and Packing Company;
4. 47° 10' 170.00 feet along Grant 8237 to Haiku Fruit and Packing Company;
5. 77° 40' 545.00 feet along Grant 8237 to Haiku Fruit and Packing Company;
6. 129° 46' 30" 1008.28 feet along Lot A-1-A of the Government Land of Kaunapapa to the point of beginning and containing an AREA OF 29.0 ACRES, MORE OR LESS.

Together with a Road Easement as shown on plan attached hereto and made a part hereof and more particularly described as follows:-

C.I.P. No. 20,247

August 12, 1985

Being a portion of Lot A-1-A of the Government Land of Kawaipapa.

Beginning at the northwest corner of this easement and on the easterly side of Hana Highway, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KAUIKI" being 5709.82 feet North and 5471.35 feet West, thence running by azimuths measured clockwise from True South:-

1. 251° 36' 135.67 feet along Grant 12,987 to Yoshimi Uchiyama and Agnes Kaiwi Uchiyama;
2. 269° 54' 260.30 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
3. 248° 21' 254.01 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
4. 272° 32' 209.21 feet along the remainder of Lot A-1-A and along Lot A-1-B of the Government Land of Kawaipapa;
5. 237° 52' 256.52 feet along Lot A-1-B of the Government Land of Kawaipapa;
6. 252° 45' 294.75 feet along Lot A-1-B of the Government Land of Kawaipapa;
7. 278° 37' 167.37 feet along Lot A-1-B of the Government Land of Kawaipapa;
8. 315° 05' 330.16 feet along Lots A-1-B and A-2 of the Government Land of Kawaipapa;
9. 336° 14' 147.71 feet along Lot A-2 of the Government Land of Kawaipapa;
10. Thence along Lot A-2 of the Government Land of Kawaipapa on a curve to the left with a radius of 125.00 feet, the chord azimuth and distance being:  
296° 54' 158.46 feet;
11. 257° 34' 190.16 feet along Lot A-2 of the Government Land of Kawaipapa;
12. 289° 09' 255.82 feet along Lot A-2 of the Government Land of Kawaipapa;

C.S.F. No. 20,247

August 12, 1985

13. 297° 10' 440.86 feet along Lot A-2 and the remainder of Lot A-1-A of the Government Land of Kawaipapa;
14. 271° 50' 329.39 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
15. 60° 03' 37.97 feet along Hana Garbage Dump Site;
16. 91° 50' 301.61 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
17. 117° 10' 443.96 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
18. 109° 09' 248.76 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
19. 77° 34' 184.50 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
20. Thence along the remainder of Lot A-1-A of the Government Land of Kawaipapa on a curve to the right with a radius of 145.00 feet, the chord azimuth and distance being:  
116° 54' 183.81 feet;
21. 156° 14' 143.97 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
22. 135° 05' 101.46 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
23. 25° 39' 4.24 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
24. 135° 05' 218.47 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
25. 98° 37' 153.95 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
26. 72° 45' 286.10 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;

C.S.F. No. 20,247

August 12, 1985

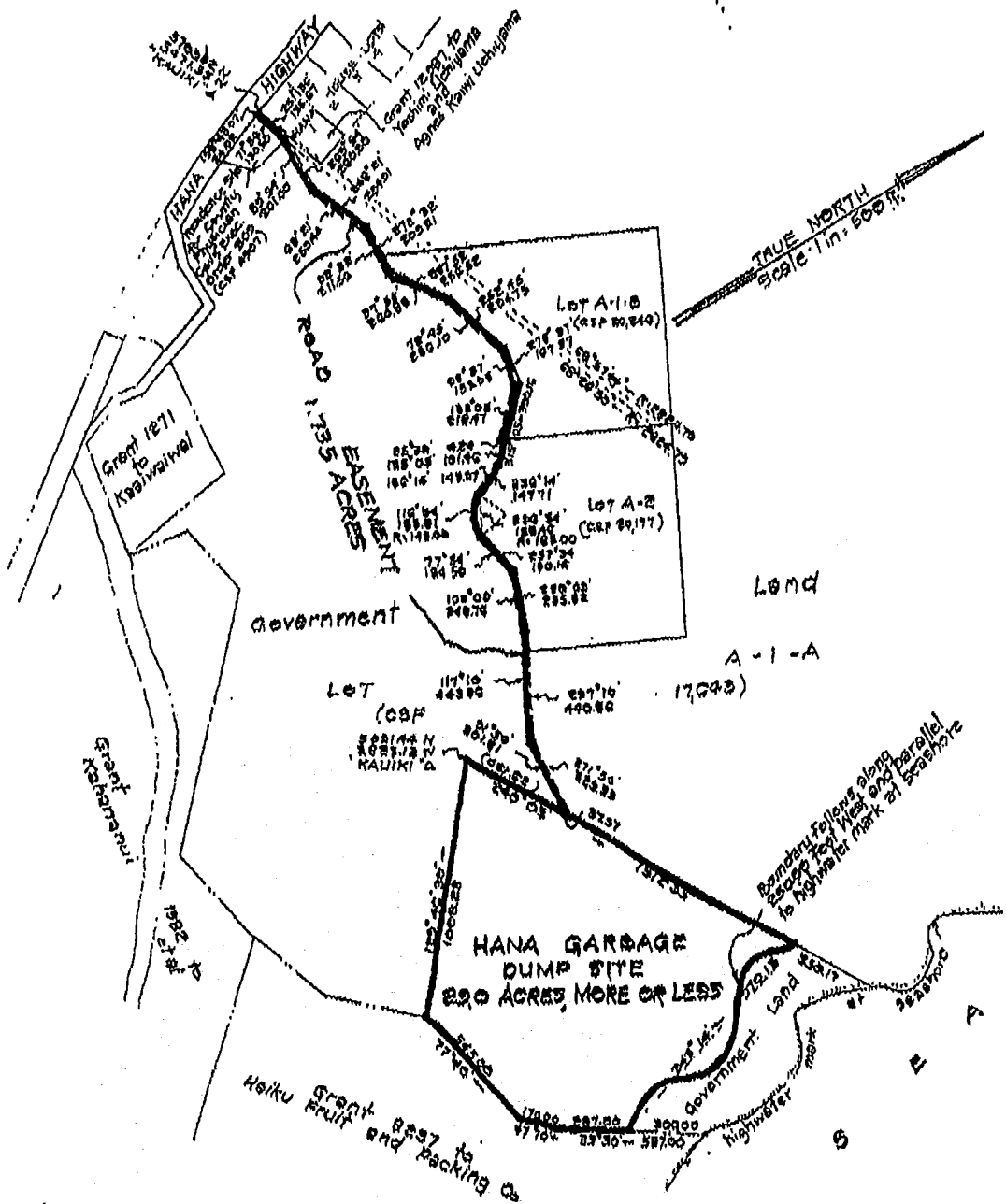
27. 57° 52' 260.88 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
28. 92° 32' 211.56 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
29. 68° 21' 253.44 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
30. 89° 54' 261.00 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa and along Residence Site for County Physician, Governor's Executive Order 309;
31. 71° 36' 130.59 feet along Residence Site for County Physician, Governor's Executive Order 309;
32. Thence along the easterly side of Hana Highway on a curve to the right with a radius of 2824.79 feet, the chord azimuth and distance being:  
158° 43' 07" 24.02 feet  
to the point of beginning and  
containing an AREA OF 1.715  
ACRES.

SURVEY DIVISION  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

By: Stanley T. Hawegawa  
Stanley T. Hawegawa  
Land Surveyor

pt

Compiled from map furn. by  
County of Maui, CSF 17,643,  
20,177 and other Govt.  
Survey Records.



**HANA GARBAGE DUMP SITE**  
Kawela, Hana, Maui, Hawaii  
Scale: 1 inch: 500 feet

MS-220 (85)  
AK Hana, Maui 10 May 88

MAP 1-3-00

I. F. No. 20,247

SURVEY DIVISION  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

EXHIBIT "B"

STH. Aug. 13, 191

## **EXHIBIT 3.**

**Board of Land and Natural  
Resources Action on May 13, 2011**

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Land Division  
Honolulu, Hawaii 96813

May 13, 2011

Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

PSF No.:03MD-380

MAUI

Withdrawal from General Lease No. S-4524 of approximately 45.14 acres; Set Aside to County of Maui, Department of Environmental Management for Landfill Expansion Purposes; and Authorize Issuance of a Right-of-Entry to the County of Maui, Department of Environmental Management; Kawaipapa, Hana, Maui, Tax Map Key: (2) 1-3-006:007 portion.

APPLICANT:

County of Maui, Department of Environmental Management  
General Lease No. S-4524, Ethel Abreu and Lloyd Abreu

LEGAL REFERENCE:

Section 171-11, Hawaii Revised Statutes (HRS), as amended.

LOCATION:

Portion of Government lands situated at Kawaipapa, Hana, Maui, identified by Tax Map Key: (2) 1-3-006:007 por., as shown on the attached map labeled Exhibit A.

AREA:

45.14 acres, more or less.

ZONING:

State Land Use District:	Agriculture
County of Maui, CZO:	Agriculture

APPROVED BY THE BOARD OF  
LAND AND NATURAL RESOURCES  
AT ITS MEETING HELD ON

May 17, 2011 *tbl*



TRUST LAND STATUS:

Section 5(b) lands of the Hawaii Admission Act

DHHL 30% entitlement lands pursuant to the Hawaii State Constitution: YES \_\_\_\_ NO  
  X  

CURRENT USE STATUS:

The subject lands are encumbered by GL S-4524 for pasture purposes.

PURPOSE:

Landfill expansion purposes

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

The Final Environmental Assessment for the subject project was published in the OEQC's Environmental Notice on November 23, 2007 with a finding of no significant impact (FONSI).

APPLICANT REQUIREMENTS:

Applicant shall be required to:

- 1) Process and obtain a 3-lot subdivision at Applicant's own cost;
- 2) Provide survey maps and descriptions according to State DAGS standards and at Applicant's own cost for each of the three (3) lots created.

REMARKS:

Hana landfill is situate at TMK (2) 1-3-006:012, in Hana, Maui and was originally disposed of in 1985 by the State to the County of Maui via Executive Order No. 3304 consisting of 29 acres (more or less).

The County of Maui Department of Environmental Management (DEM) has requested to expand the Hana landfill by about 45 acres (more or less) to accommodate increased demand for operational space that includes an existing encroachment area and additional lands needed for environmental monitoring and buffer zone purposes.

An Environmental Assessment was completed for the subject project and was published in the OEQC's Environmental Notice on November 23, 2007 with a finding of no significant impact (FONSI). According to the County of Maui, a State Special Land Use, County

Special Use and Special Management Area permits have already been acquired for the proposed uses.

In order to enable the expansion and set-aside of government lands, parcel 007 will need to be subdivided. Three (3) parcels are to be created by the County. 1) for the Hana landfill expansion area, 2) for the existing tenant under GL S-4524 and 3) an unused portion of the existing pasture lease on the Hana town side of the existing County road that bisects parcel 007 is to be made available.

General Lease No. S-4524, Ethel Abreu and Lloyd Abreu have no objections to the withdrawal of 45.14 acres. The lease allows for a withdrawal without compensation.

**RECOMMENDATION:**


That the Board, subject to Applicant fulfilling the Applicant Requirements above:

1. Authorize the withdrawal from General Lease No. S-4524 of approximately 45.14 acres.
2. Authorize the County of Maui to conduct the subdivision of government lands into three lots.
3. Approve of and recommend to the Governor the issuance of an executive order setting aside the subject lands to the County of Maui under the terms and conditions cited above, which are by this reference incorporated herein and subject further to the following:
  - A. The standard terms and conditions of the most current executive order form, as may be amended from time to time;
  - B. Disapproval by the Legislature by two-thirds vote of either the House of Representatives or the Senate or by a majority vote by both in any regular or special session next following the date of the setting aside;
  - C. Review and approval by the Department of the Attorney General; and
  - D. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
4. Authorize the issuance of an immediate right-of-entry permit to the County of Maui, Department of Environmental Management covering the subject area under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:


May 13, 2011

- A. The standard terms and conditions of the most current right-of-entry permit form, as may be amended from time to time;
- B. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

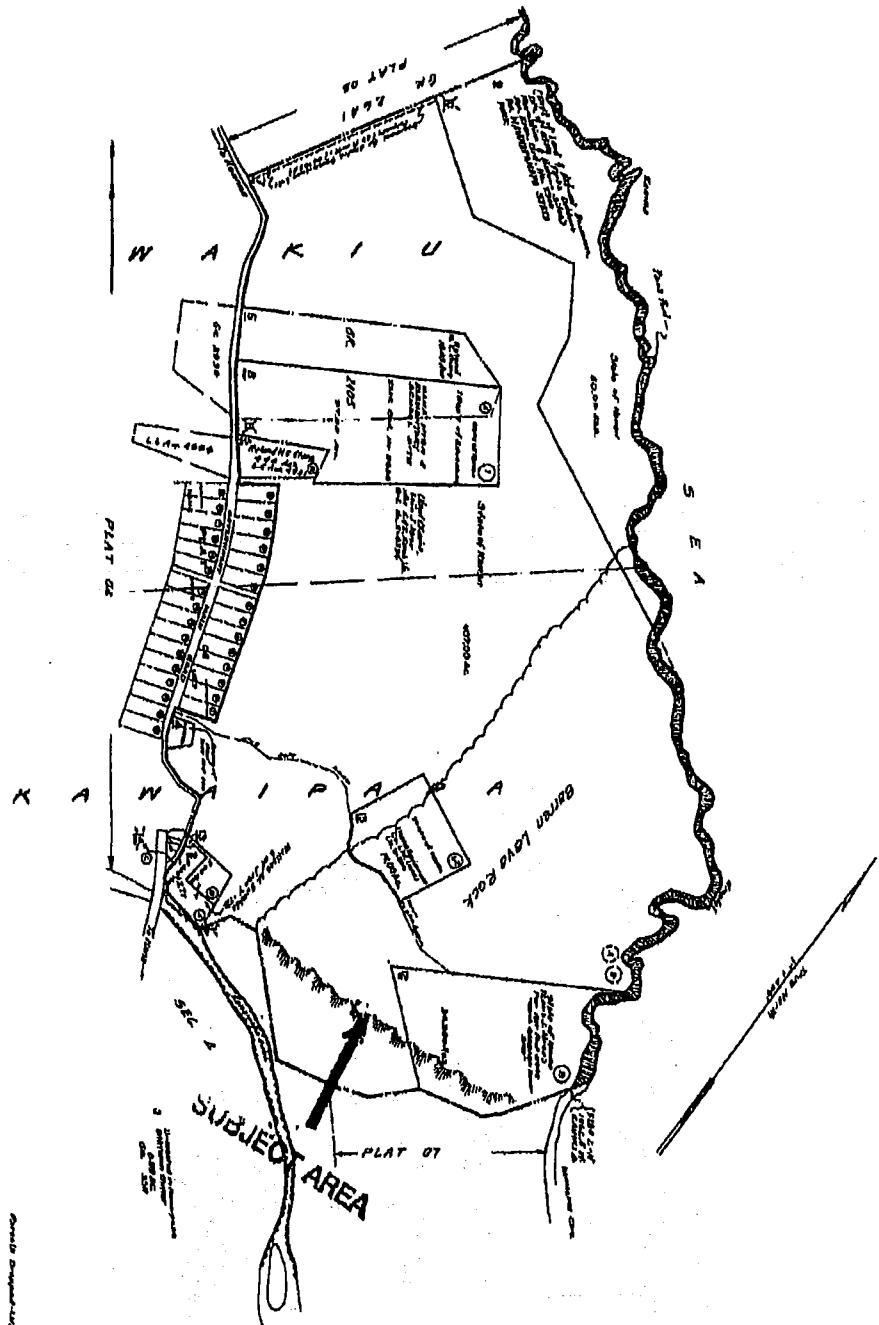
Respectfully Submitted,

  
\_\_\_\_\_  
Daniel Ornellas  
District Land Agent

APPROVED FOR SUBMITTAL:

  
\_\_\_\_\_  
William J. Aila, Jr., Chairperson

POE WAKU & SAMURAI. HANA, MAOL



STANDARD CHARTER  
BANK, LTD. CHANGE

SECOND DIVISION		
DORE	SEC.	PLAT
1	3	06
CONTAINING PARCELS		
E. 304.6714/1407/4		

**EXHIBIT A**

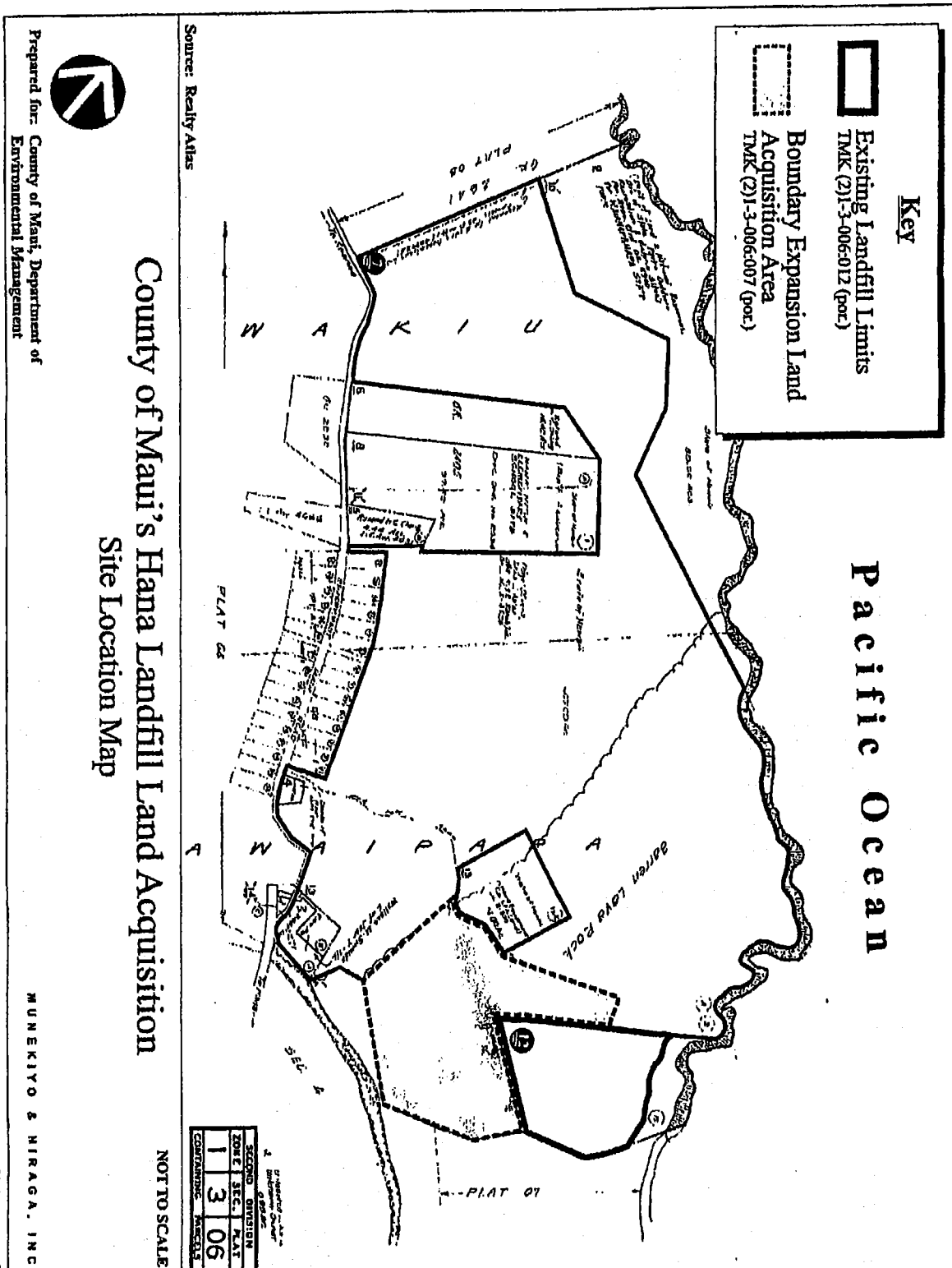


EXHIBIT "A"

impound the same and to occupy and use so much of the demised premises as may be required in the exercise of this right, reserved; provided, however, that as a condition precedent to the exercise by the Lessor of the rights reserved in this paragraph just compensation shall be paid to the Lessee for any of Lessee's improvements taken.

2. Withdrawal. The right to withdraw the demised land, or any portion thereof, at any time during the term of this lease upon the giving of reasonable notice by the Board and without compensation, except as provided herein, for public uses or purposes, including residential, commercial, industrial or resort developments, for constructing new roads or extensions, or changes in line or grade of existing roads, for rights-of-way and easements of all kinds, and shall be subject to the right of the Board to remove soil, rock or gravel as may be necessary for the construction of roads and rights-of-way within or without the demised premises; provided, that upon such withdrawal, or upon such taking which causes any portion of the land originally demised to become unusable for the specific use or uses for which it was demised, the rent shall be reduced in proportion to the value of the land withdrawn or made unusable, and if any permanent improvement constructed upon the land by the Lessee is destroyed or made unusable in the process of such withdrawal or taking, the proportionate value thereof shall be paid based upon the unexpired term of the lease; provided, further, that no such withdrawal or taking shall be had as to those portions of the land which are then under cultivation with crops until the crops are harvested, unless the Board pays to the Lessee the value of such crops.

EXHIBIT "C"

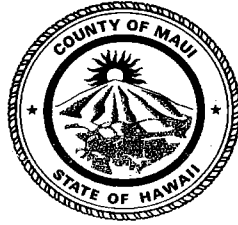
## **EXHIBIT 4.**

### **Letter of Authorization**

ALAN M. ARAKAWA  
Mayor

STEWART STANT  
Director

MICHAEL M. MIYAMOTO  
Deputy Director



MICHAEL RATTE  
Solid Waste Division

ERIC NAKAGAWA, P.E.  
Wastewater Reclamation Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**  
2050 MAIN STREET, SUITE 1C  
WAILUKU, MAUI, HAWAII 96793

January 19, 2016

Suzanne Case, Chairperson  
Department of Land and Natural Resources  
State of Hawai'i  
P.O. Box 621  
Honolulu, Hawai'i 96809

Dear Ms. Case:

**SUBJECT: PROPOSED MAKAI HANA LANDFILL CLEAN-UP AND CLOSURE PROJECT AT  
TMKS (2)1-3-006:012 (POR.) AND 007 (POR.); HANA, MAUI**

I, Stewart Stant, as Director of the County of Maui, Department of Environmental Management and through Executive Order No. 04 and action of the Board of Land and Natural Resources on May 13, 2011 have control and management of TMKs (2)1-3-006:012 (por.) and 007 (por.). I hereby authorize Munekiyo Hiraga to prepare, file, process, and obtain a Conservation District Use Permit application for the subject project.

Should you have any questions or require additional information, please do not hesitate to contact me at (808) 270-8230.

Sincerely,

Stewart Stant  
Director of Environmental Management

cc: Colleen Suyama, Munekiyo Hiraga  
Elaine Baker, Solid Waste Division



STATE OF Hawaii  
COUNTY OF Maui ) SS.

On this 19<sup>th</sup> day of January, 2016, before me personally appeared Stewart Stant to me personally known, who, being by me duly sworn or affirmed, did say that such person executed the foregoing instrument as the free act and deed of such person, and if applicable in the capacities shown, having been duly authorized to execute such instrument in such capacities.

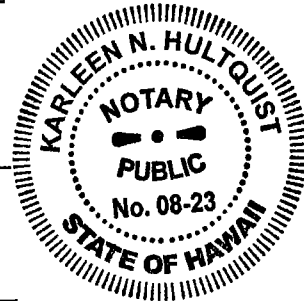
IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

Karleen N. Hultquist

Print Name: KARLEEN N. HULTQUIST

Notary Public, State of Hawaii, Second Circuit

My commission expires: 2/3/2016



Doc. Date: 1/19/2016 # Pages: 2

Notary Name: KARLEEN N. HULTQUIST

Second Circuit

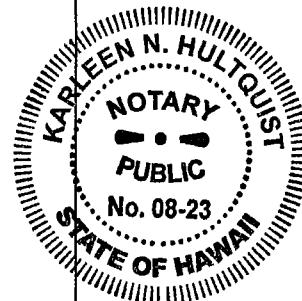
Doc. Description:

Proposed Makai Hana Landfill Cleanup and  
Closure Project

(Stamp or Seal)

Karleen N. Hultquist 1/19/2016  
Notary Signature Date

NOTARY CERTIFICATION

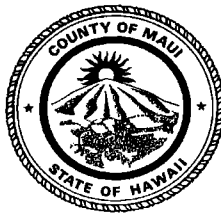


# **EXHIBIT 5.**

## **Final Closure Plan**

# **FINAL CLOSURE PLAN HANA LANDFILL MAKAI SIDE**

**Prepared for**



**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**  
2050 MAIN STREET, SUITE 1C  
WAILUKU, MAUI, HAWAII 96793

**Prepared by**

**A-MEHR, INC.  
23016 Mill Creek Drive  
Laguna Hills, CA 92653**

**November 2014  
Revised February 2015**

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## FIGURES

Figure 1	Existing Site Plan
Figure 2	Field Investigation Test Points and Limits of Waste
Figure 3	Waste Excavation Contours
Figure 4	Proposed Clean Closure Excavation Grades

## APPENDIX A Soil Sampling and Analysis Plan

## **FINAL CLOSURE PLAN HANA LANDFILL MAKAI SIDE**

### **1. INTRODUCTION**

Hana Landfill is comprised of two sections. The currently active Hana Landfill area lies entirely on the west side (mauka side) of Waikoloa Road. The original permitted dump area, Hana Landfill Makai Side, which has not been used for a number of years, is located on the east (makai) side of Waikoloa Road, in an area designated as part of a Conservation District regulated by the State Department of Land Use and Natural Resources (DLNR). Figure 1 is a site plan showing the existing conditions of the two landfill areas.

Waste disposed in the Hana Landfill Makai Side included municipal solid waste, green waste, construction and demolition waste and scrap metal including old automobiles. After disposal activities were discontinued most waste was covered with soil, although some areas of green waste were left without cover and allowed to decompose. Over time, most of the area where waste was disposed became covered with natural vegetation ranging from grass to heavy brush.

After consideration of several options, the County of Maui has determined that the most appropriate means of closing the Hana Landfill Makai Side area is by clean closure, including removal of all waste materials, grading of the area and revegetation with appropriate erosion controls.

In order to define the limits, characteristics and quantity of waste in the makai area, the County conducted a detailed site investigation in March 2014 according to plans developed by A-Mehr, Inc. (A-Mehr). A contractor working at the direction of an A-Mehr field engineer excavated a series of test pits and trenches, which were subsequently surveyed by a licensed land surveyor to establish the waste limits. A-Mehr then combined the survey data and depth of waste in each test pit to calculate an estimated waste volume.

The remainder of this document contains the following sections:

- Section 2 describes in detail the March 2014 investigative program and results of its analysis.
- Section 3 describes the proposed clean closure process.
- Section 4 addresses post-closure maintenance and use.

### **2. INVESTIGATIVE PROGRAM AND RESULTS**

#### **2.1 Methodology**

The field investigation was conducted during the period March 24-March 26, 2014. Prior to this time, a licensed surveyor (Akamai Surveying, Inc.) staked the locations of test pits according to an investigative plan prepared by A-Mehr based on prior information from county records of waste disposal. The County's contractor, under A-Mehr's field engineer's direction, then excavated at the preset locations using two general approaches:

- For test pit locations intended to define limits of waste, an initial excavation determined whether waste was present. If waste was found, the test pit was extended by trenching outward toward the site boundary until no waste was present. This point was staked for later surveying to define the waste limits in the area.
- If no waste was found in the initial test pit, the pit was extended by trenching or by excavating additional pits in locations toward the landfill center, until the interface between waste and native soil or clean fill soil was established. This point was staked for later surveying to define the waste limits in the area.
- For test pits intended to determine the depth and characteristics of waste, pits were excavated as deep as needed to reach the interface between the bottom of waste and native soil. Excavation depths ranged from 5 feet to 28 feet in these pits. Data collected for each pit included the depth of cover soil, and depth to bottom of waste.

Additional test pits in addition to the pre-surveyed test pit locations were excavated as needed to refine the limits of waste or depth and characteristics of waste in some areas. All test pits were backfilled after being staked by the A-Mehr engineer. Akamai Surveying then established the location and elevation of the surface at each test pit location.

Figure 2 shows the locations of all the test pits together with the limits of waste established by the fieldwork. Table 1 is the field engineer's record of observations.

## 2.2 Investigation Results

### 2.2.1 Waste Limits and Volume

Following receipt of final post-investigation survey information from Akamai Surveying, A-Mehr created Figure 2, showing all test points and the approximate limits of waste based on the field log data. Digital terrain model (DTM) surfaces were prepared of the top and bottom of waste using information in Table 1 and the contouring routines in the earthwork software (TerraModel, by Trimble). Figure 3 shows the conceptual contours of the bottom of waste determined by this method.

The area contained within the limits of waste shown in Figure 2 is approximately 6.4 acres. For closing the landfill area by removing all waste, the area within the waste limits would be excavated to the grades shown in Figure 4. The approximate depth of excavation required to accomplish this is shown by the contours of Figure 3.

Computations comparing the DTM surfaces for existing topography, top of waste and bottom of waste, result in the following approximate volumes of waste and soil that would be excavated during clean closure of the site:

Total excavation (existing topography to bottom of waste):	99,500 cy
Clean soil excavation (existing topography to top of waste):	10,300 cy
Waste excavation (top of waste to bottom of waste)	89,200 cy

It should be emphasized that these quantities are approximate. Significant uncertainty is created particularly in the area identified in Figure 3, where the field investigation exposed a previously unidentified large number of abandoned automobiles and other vehicles that were

apparently dumped into a gully many years ago. There is no accurate information on the previous elevations of this area, and it was not possible to excavate through the vehicles to find the "bottom of waste" in the area.

#### 2.2.2 Waste Limits in Relation to Permitted Site Boundary

As discussed in Section 1, historical surveys and anecdotal information have suggested that some waste in the Hana Landfill Makai Side area may have encroached into areas of the State Land Use Conservation District that were outside the boundaries permitted by the original landfill permits. The field investigation and its results described in Section 2.2.1 indicate that such encroachment, if any, involves a very limited area.

The areas of potential encroachment discussed in the past were beyond the east and north boundaries of the Hana Landfill Makai Side area. Each of these is discussed below.

- **East Boundary:** The easterly boundary of the Hana Landfill Makai Side, as originally granted in Executive Order (E.O.) 3304 dated November 16, 1985, was defined as a meandering line "250.00 feet west and parallel to high water mark at seashore", referring to the shoreline of Ka'inālimu Bay. Figure 2 shows the 250-foot setback and the waste limits as determined in the field investigation. The drawing indicates that a small area in the southwest part of the site encroaches beyond the site boundary by approximately 30 feet.
- **North Boundary:** Figure 2 shows the north site boundary in relation to the test pits used to determine the extent of waste in the area. Test pits near the boundary include P-4, NP-4, and P-5. Point P-4, the originally staked position, was located approximately 60 feet outside the site boundary based on previous County estimates of encroachment into the Conservation District. Excavation at that location found no waste. Additional test pits and trenching established the waste limits at Point NP-4, located within a few feet of the site boundary. Similarly, no waste was found at P-5, and trenching located waste approximately five feet inward from it.

Based on the data and field observations, it is reasonable to conclude that any encroachment of waste into the Conservation District that is outside the boundaries granted by E.O. 3304 for waste disposal is, at most, a very small area. The proposed clean closure project will include location of waste limits around the entire site perimeter. After completion of excavation, the limits adjacent to the site boundary will be surveyed to identify any areas of encroachment beyond the originally permitted landfill boundaries. In consultation with the State Department of Land and Natural Resources (DLNR), such areas, if any, will be restored to conditions acceptable to the DLNR.

### 3. CLEAN CLOSURE PROCEDURE

The County proposes to close the Hana Landfill Makai Side area by removing all waste over a period of approximately 3 years, using County resources and personnel or contractors. Closure of the approximately 6.4-acre waste footprint would occur in staged increments of approximately two acres per year, beginning along the north boundary and working toward the south. Clean closure could be done using the following procedures:

- Survey and stake the limits of waste as shown in Figure 2.
- Clear and grub vegetation from an area planned for waste removal during the next 3 to 6 months. (In order to minimize erosion the disturbed area should be limited.)
- Strip existing cover soil to expose refuse, and stockpile the soil for any fill required subsequently for grading purposes, with any excess made available for use as daily cover in the active Hana Landfill.
- Excavate refuse to expose clean native soil, and haul to a process area or the active landfill.
- If significant refuse is found at the surveyed limits of waste, expand the excavated area until all refuse has been removed.
- Process the refuse as follows:
  - Remove large metal items to a scrap metal stockpile for transport to an appropriate licensed scrap dealer.
  - Remove abandoned automobiles buried in gullies at the southeast corner of the site. As they are removed, additional excavation will be conducted to ensure that all vehicles are removed and that the area is excavated to the approximate original grades.
  - Remove any large wood items including stumps or logs to a separate stockpile. Depending on the character and quantity of these materials they may either be processed or disposed in the active Hana Landfill.
  - Depending on conditions, remove other items or materials that can be readily separated for recycling. This may include concentrated volumes of clean green waste.
  - Transfer the remaining refuse to the active Hana landfill for disposal.
- After all refuse has been excavated from an area, soil samples will be collected from the exposed subgrade, and tested to determine compliance with DOH Environmental Action Levels (EALs). In addition, samples will be collected from native soils in areas hydrogeologically upgradient from the landfill, to determine background levels of any chemical constituents detected in subgrade soil within the landfill footprint. Any areas where subgrade levels with soil constituents exceeding EALs and background concentrations will be further excavated to expose bedrock or soils that test within background concentrations. Appendix A provides additional detail regarding soil sampling and testing program.
- No area of exposed subgrade will be backfilled, covered with soil or revegetated until testing has demonstrated soil contaminant levels are below EAL values.
- Survey the disturbed area and prepare an as-built drawing of the excavated conditions, including any encroachment beyond permitted site boundaries.



- Grade the site to achieve a relatively uniform slope, using stockpiled cover soil as needed to fill any low spots that would collect runoff.
- Install erosion controls and plant the site to an appropriate grass mixture.

Any encroachment of the final excavation grades beyond the originally permitted site boundaries will be documented and reported to the State Department of Land Use and Natural Resources (DLNR). Remedial measures in addition to the procedures described above may be required by DLNR in areas of encroachment.

#### **4. POST-CLOSURE USE AND CARE**

Because the Hana Landfill Makai Side area is within a State Conservation District, it will remain as open space after all waste is removed. Based on past experience at the site, it is expected that over time a variety of plant species will naturally replace the temporary grass cover that the County will install for erosion control. Until that occurs the County will monitor the site and repair any areas where the grass cover is lost in order to prevent erosion.

**TABLE 1 - FIELD INVESTIGATION LOG**

POINT NO.	DEPTH TO WASTE COVER	DEPTH TO BOTTOM OF WASTE	WASTE THICKNESS	DEPTH TO BOTTOM	WASTE APPEARANCE/ COMMENT
P-1	0	0	0	6	NO TRASH
P-2	0	0	0	0	NO TRASH
P-3	0	0	0	0	NO TRASH
P-4	0	0	0	5	NO TRASH
NP-4	0	0	0	0	NO TRASH/EDGE OF WASTE
NP-4T	1	7	6	7	TIRE, CAR PARTS, WOOD
P-5	0	0	0	6	NO TRASH
P-6	0	0	0	4	NO TRASH
NP-6	0	0	0	5	NO TRASH
P-7	1	7	6	7	TRASH IS RIGHT AT EDGE
P-7T	1	4	3	5	FIRE HYDRANT, 55 GALLON BUCKET
P-8	0	0	0	5	NO TRASH
P-9	1	10	9	NA	CAR ENGINE, AXLE, CAR'S PART
NP-9	0	0	0	5	EDGE OF TRASH
NP-9A	0	0	0	5	EDGE OF TRASH
NP-9B	0	0	0	5	TOE OF TRASH
NP-9C	1	3	2	3	EDGE OF TRASH
NP9-D	0	0	0	5	EDGE OF TRASH
NP-9E	0	0	0	5	EDGE OF TRASH
NP-9F	0	0	0	3	NO WASTE
P-10	3	5	2	5	TIRE WITH RIM, EDGE OF TRASH
P-10A	2	20	18	20	PLASTIC, WOOD, CARPET, CAN, PIPE, PVC PIPE CAR'S BATTERY
P-11	0	0	0	0	NO TRASH

<b>NP-11</b>	0	0	0	0	EDGE OF TRASH
<b>NP-11T</b>	2	5	3	5	WOOD, METAL, WIRE, BLOWER,
<b>P-12</b>	0	0	0	5	NO TRASH
<b>P-13</b>	0	0	0	4	NO TRASH
<b>P-14</b>	0	0	0	4	NO TRASH
<b>D-1</b>	0	0	0	0	NO TRASH
<b>D-2</b>	1	3	2	5	METAL, WOOD, SURFACE TRASH
<b>D-2A</b>	0	0	0	5	NO TRASH
<b>D-3</b>	1	8	7	8	WOOD, METAL, SHIP'S ROPE, CAR'S PART, GAS ROPE TANK
<b>D-3A</b>	1	6	5	10	PLASTIC, WOOD, METAL, CONCRETE
<b>D-4</b>	2	15	13	15	TARP, WOOD, 5 GALLON BUCKET, METAL
<b>D-5</b>	0	0	0	0	NO TRASH
<b>D-5A</b>	0	0	0	5	NO TRASH
<b>D-6</b>	1	3	2	5	METAL, CARPET, PLASTIC, WOOD
<b>D-7</b>	1	7	6	7	WOOD, CONCRETE, CARPET
<b>D-7A</b>	1	9	8	14	WOOD, PIPE, GREEN WASTE, PVC PIPE, BIKE TIRE, MATTERS, CAR'S PART
<b>D-8</b>	2	28	26	28	WOOD, PVC PIPE, ELECTRONIC EQUIPMENT, LUMBER, METAL, CARPET
<b>D-9</b>	0	0	0	8	NO TRASH
<b>D-10</b>	1	7	6	8	CARPET, TIRE
<b>D-10A</b>	0	0	0	0	NO TRASH
<b>D-11</b>	2	6	4	7	REBAR
<b>D-12</b>	1	14	13	20	PVC PIPE, WOOD, CAR'S RIM, GLASS, METAL, CAR'S ROTOR

**APPENDIX A  
HANA LANDFILL MAKAI SIDE FINAL CLOSURE PLAN  
SOIL SAMPLING AND ANALYSIS PLAN  
FEBRUARY 2015**

## **1. INTRODUCTION**

The Hana Landfill Makai side is to be closed by excavation of all waste materials. The exposed underlying natural soil material will be sampled and tested to determine that it does not exceed regulatory limits for contaminants. This Plan describes procedures for sampling, testing and evaluation of test results. It also addresses procedures to be followed in event that unacceptable levels of chemical constituents are present.

The excavation will be conducted in a series of phases over a three-year period, based on weather conditions and availability of labor and equipment. The procedures described in this Plan will be implemented in each phase prior to any final grading or revegetation.

## **2. SOIL SAMPLING PROCEDURES**

Prior to sampling any phase of subgrade within the waste footprint, a minimum of two (2) samples of native soil will be collected from areas outside the landfill waste footprint. These samples will be collected in areas determined to be hydrogeologically upgradient from the landfill. They will be used to establish background levels for potential soil contaminants in the site vicinity.

At the conclusion of each phase of excavation, soil samples will be collected from a depth of approximately six (6) inches below the subgrade surface. Samples will be collected in a container specified by the certified testing laboratory that will analyze them.

A minimum of one sample will be collected from each phase with an area of one acre or less. Samples in phases of one acre or more will be collected on the basis of two (2) samples per acre. Samples will not be taken in areas where waste excavation has exposed bedrock.

A qualified consultant retained by the County will perform the sampling. The consultant shall use a Chain of Custody form supplied by the laboratory for transmittal of the samples.

## **3. LABORATORY ANALYSIS**

Each soil sample will be analyzed for the following:

- Total metals using the USEPA Method 6010B;
- Mercury by USEPA Method 8015B;
- Total petroleum hydrocarbons (TPH) quantified as diesel, quantified as gasoline, and TPH quantified as oil/residuals by USEPA Method 9015B Modified; and
- Select general soil parameters not subject to EALs.

Analysis results will be compared with applicable Environmental Action Levels (EALs) as established by the Hawaii Department of Health and listed in Attachment 1.

#### **4. EVALUATION OF TEST RESULTS**

Each sample result will be compared with EAL values and values from background samples. Areas where one or more parameters exceed both EALs and background concentrations will be identified for additional excavation or investigation.

#### **5. REMEDIAL ACTIONS**

Any area identified for additional excavation or investigation based on soil test results will be additionally excavated. Excavated material will be treated as contaminated soil and disposed in the active Hana Landfill. Petroleum contaminated soil may be bioremediated prior to burying in the landfill.

No excavated area of the landfill will be graded, covered or revegetated until the test program has demonstrated that any contaminated soil has been removed.

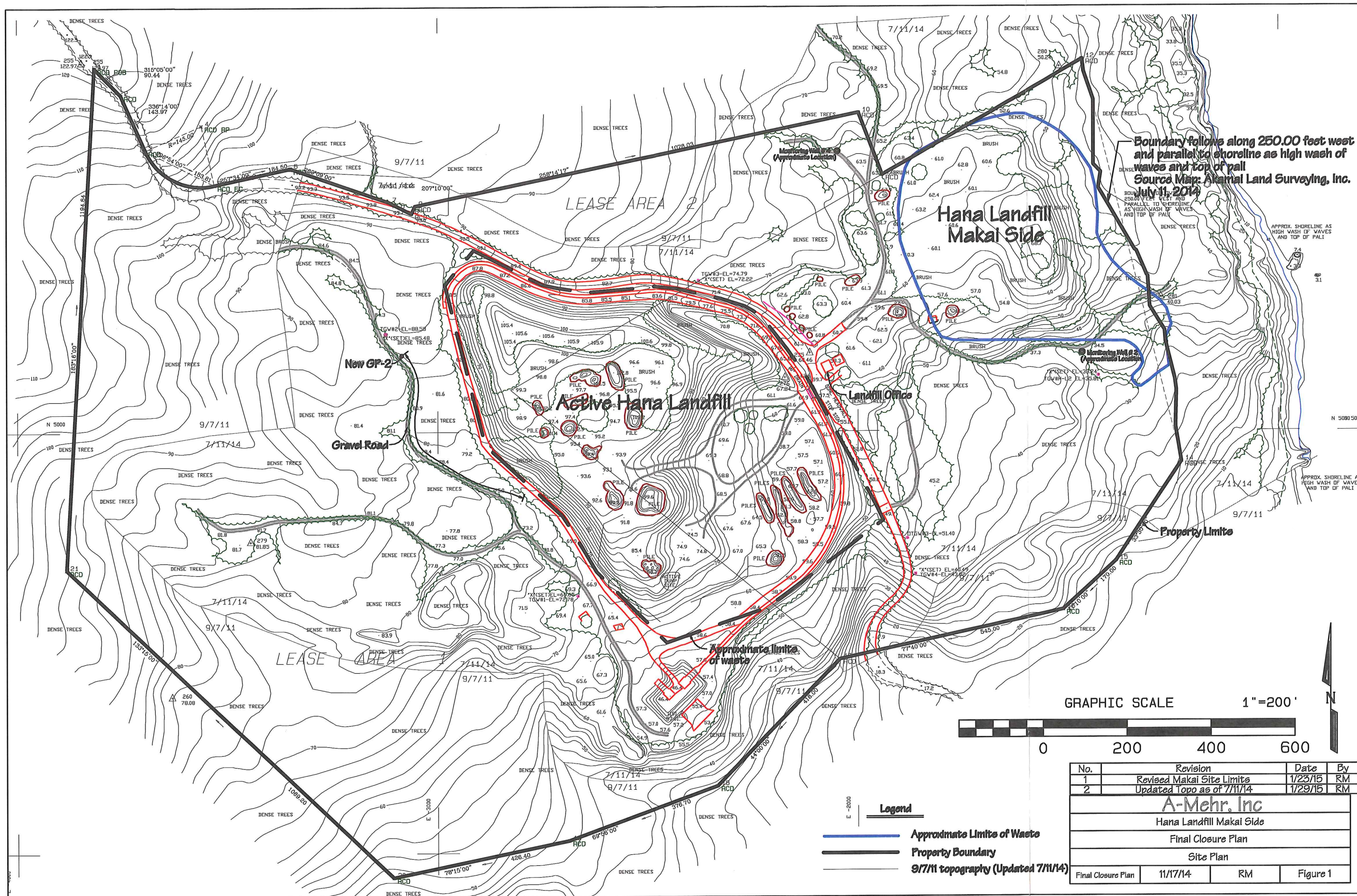
**ATTACHMENT 1**  
**SOIL ENVIRONMENTAL ACTION LEVELS**

<b>Analyte</b>	<b>Soil EAL (mg/kg)</b>
Arsenic	2.0E+01
Barium	7.5E+03
Beryllium	4.0E+00
Cadmium	1.2E+01
Chromium	5.0E+02
Cobalt	4.0E+01
Copper	2.3E+02
Lead	2.0E+02
Mercury	4.7E+00
Nickel	1.5E+02
Phosphorus	N/A
Vanadium	1.1E+02
Zinc	2.2E+01
Aluminum	N/A
Calcium	N/A
Iron	N/A
Magnesium	N/A
Manganese	N/A
Potassium	N/A
Sodium	N/A
Strontium	N/A
TPH as Diesel	1.0E+02
TPH as Gasoline	1.0E+02
TPH as Residual Fuel	5.0E+02
Ethylene Glycol	N/A

# **EXHIBIT 6.**

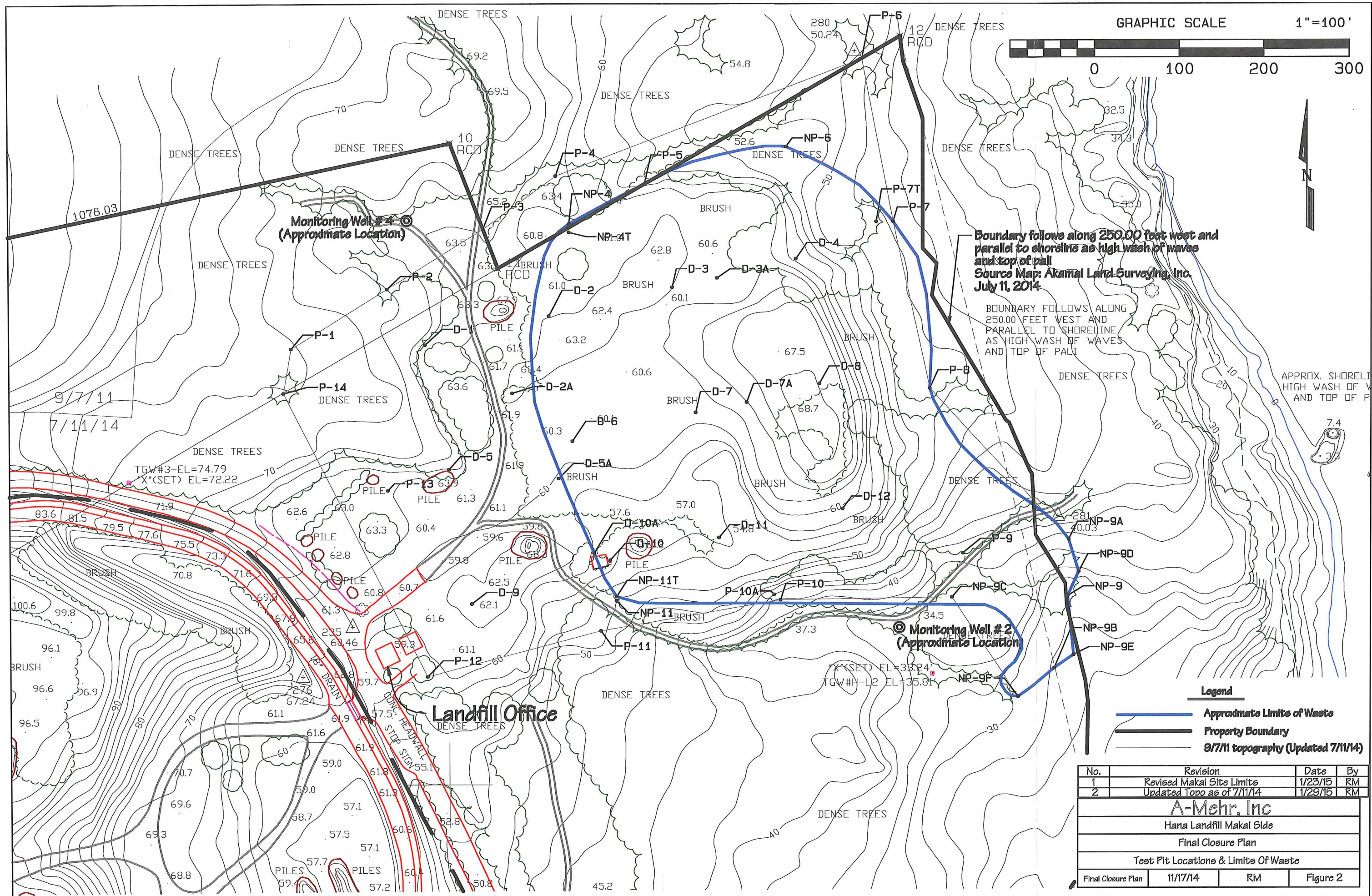
## **Project Plans**





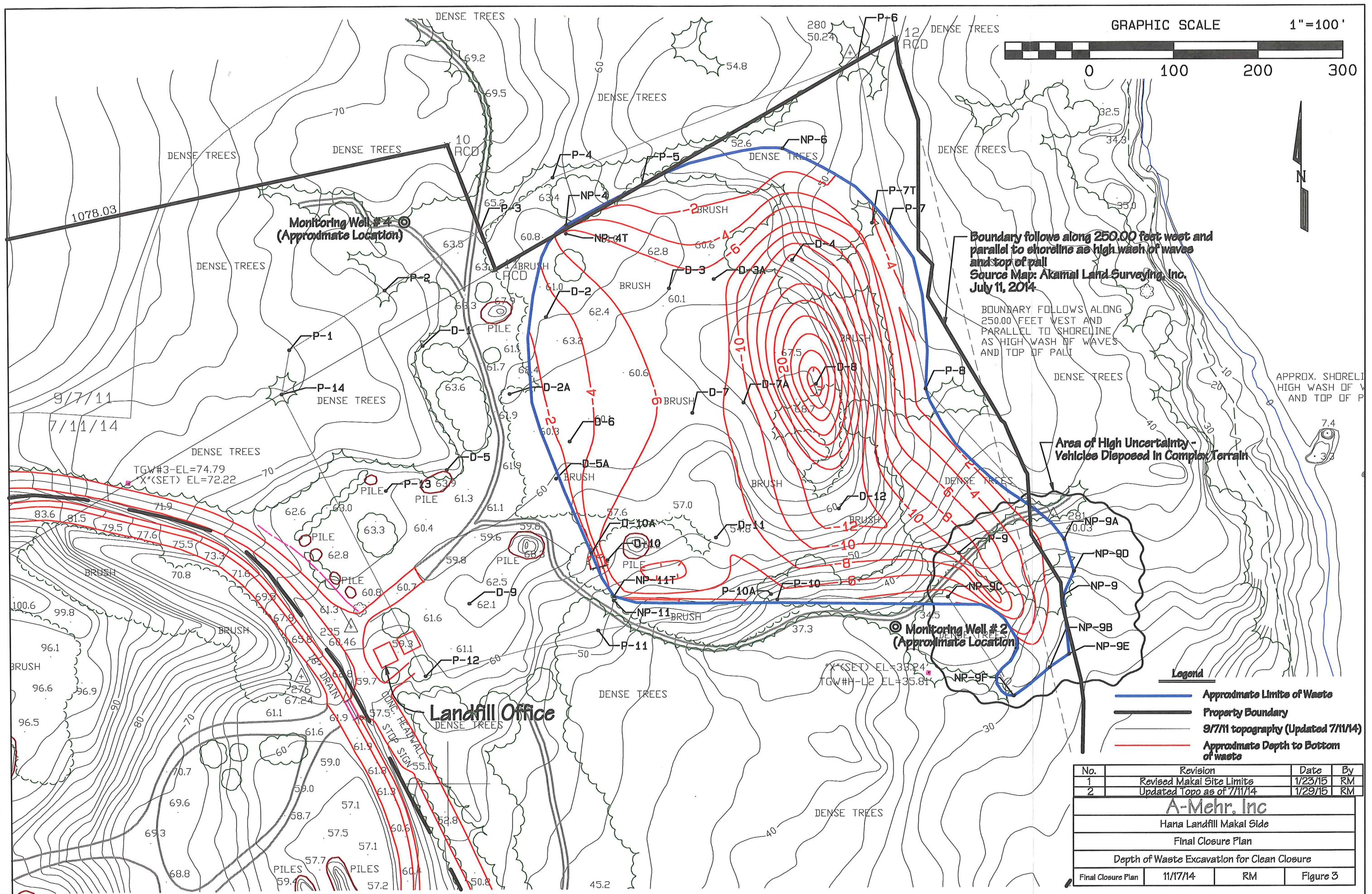
No.	Revision	Date	By
1	Revised Makai Site Limits	1/23/15	RM
2	Updated Topo as of 7/11/14	1/29/15	RM
A-Mehr, Inc			
Hana Landfill Makai Side			
Final Closure Plan			
Site Plan			
Final Closure Plan	11/17/14	RM	Figure 1



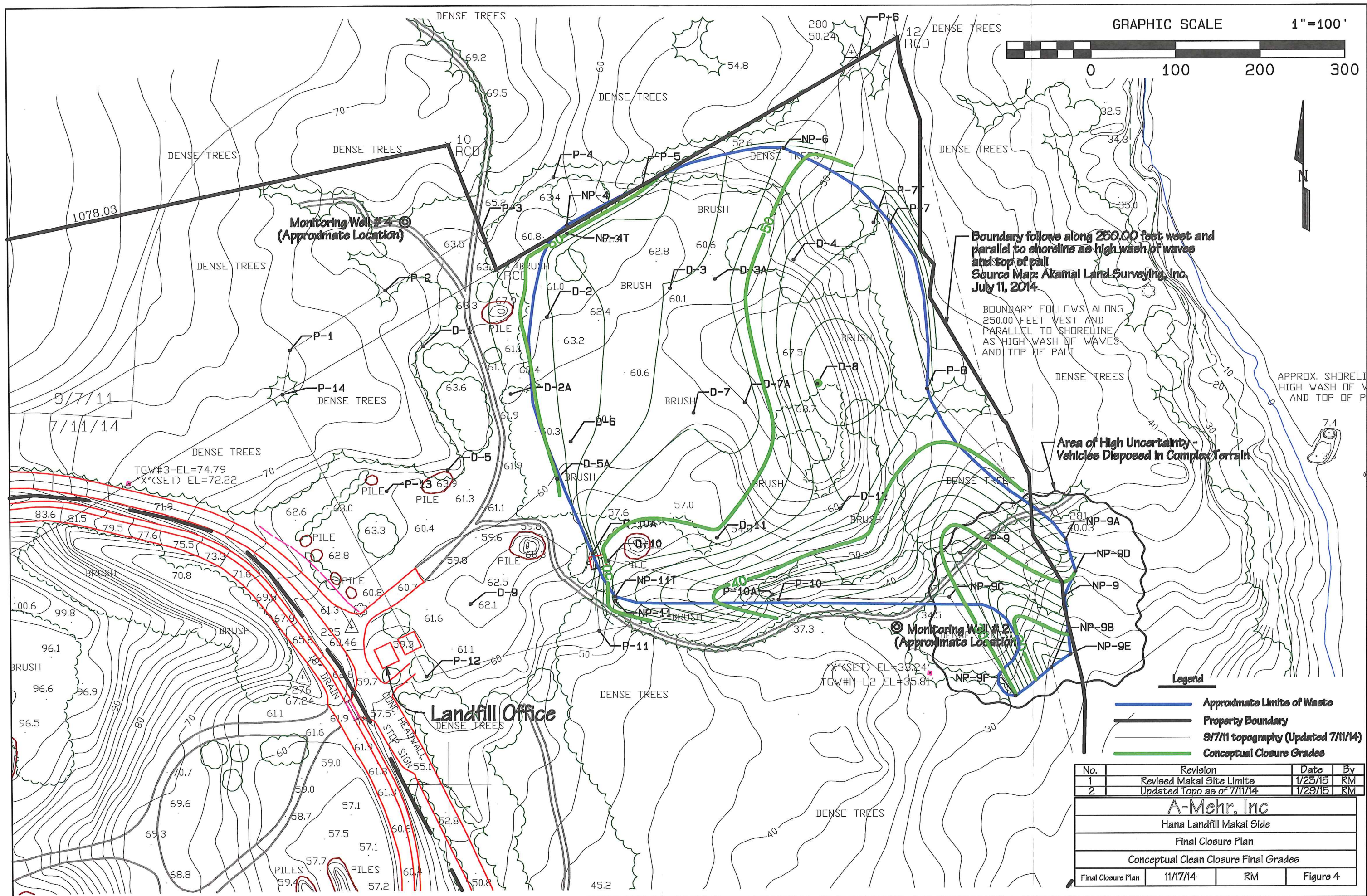


No.	Revision	Date	By
1	Revised Makai Site Limits	1/23/15	RM
2	Updated Topo as of 7/11/14	1/29/15	RM
A-Mehr, Inc			
Hana Landfill Makai Side			
Final Closure Plan			
Test Pit Locations & Limits Of Waste			
Final Closure Plan	11/17/14	RM	Figure 2



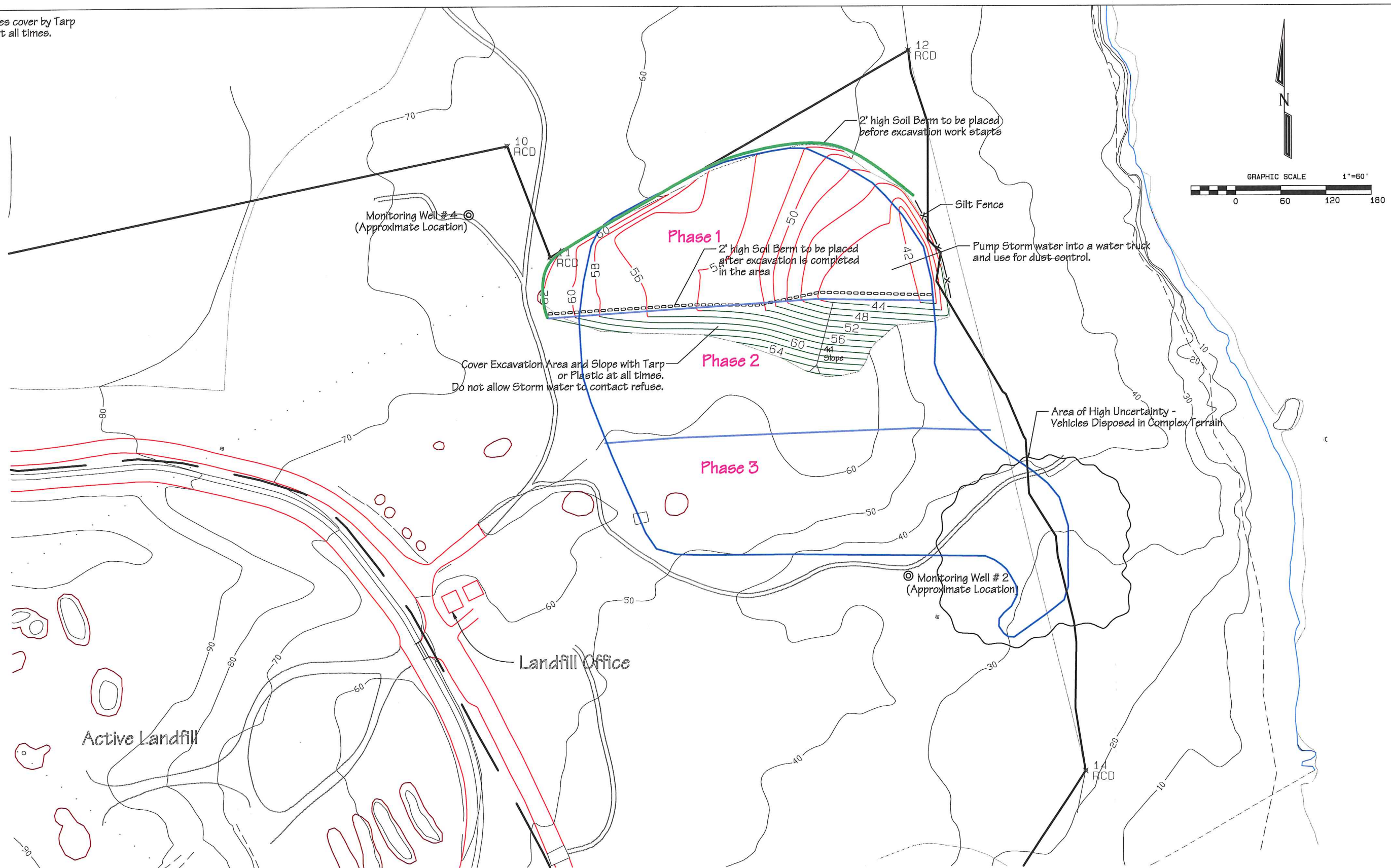








All Stockpiles cover by Tarp or Plastic at all times.



Legend

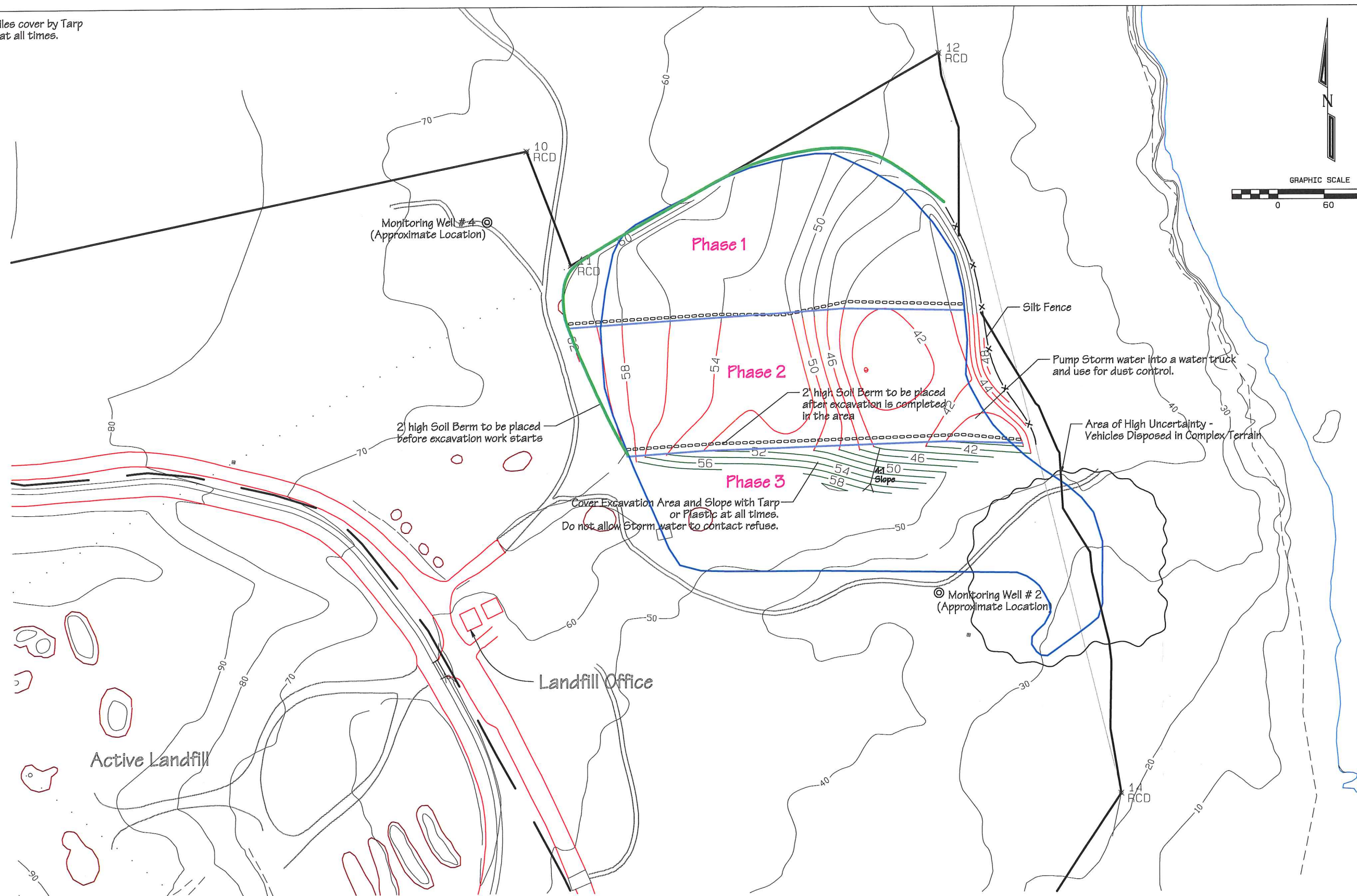
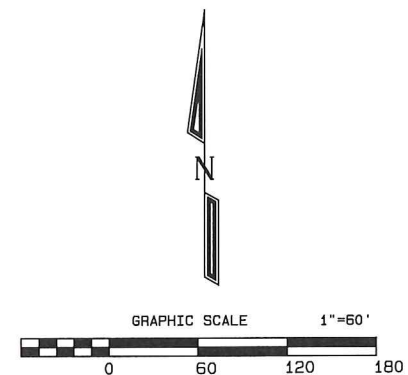
- Approximate Limits of Waste
- Property Boundary
- 5/20/15 topography
- Proposed Excavation Grades
- Temporary Slope Grades

Estimated Excavation Quantities  
Refuse = 24,765 cy  
Soil = 3,435 cy  
  
Average depth of excavation = 8 feet

A-Mehr, Inc			
Makai Hana Landfill			
Phasing Plan			
Phase 1 Clean-Up and Closure			
phasing Plan 4.1	6/9/16	RM	Figure 2



All Stockpiles cover by Tarp or Plastic at all times.



**Legend**

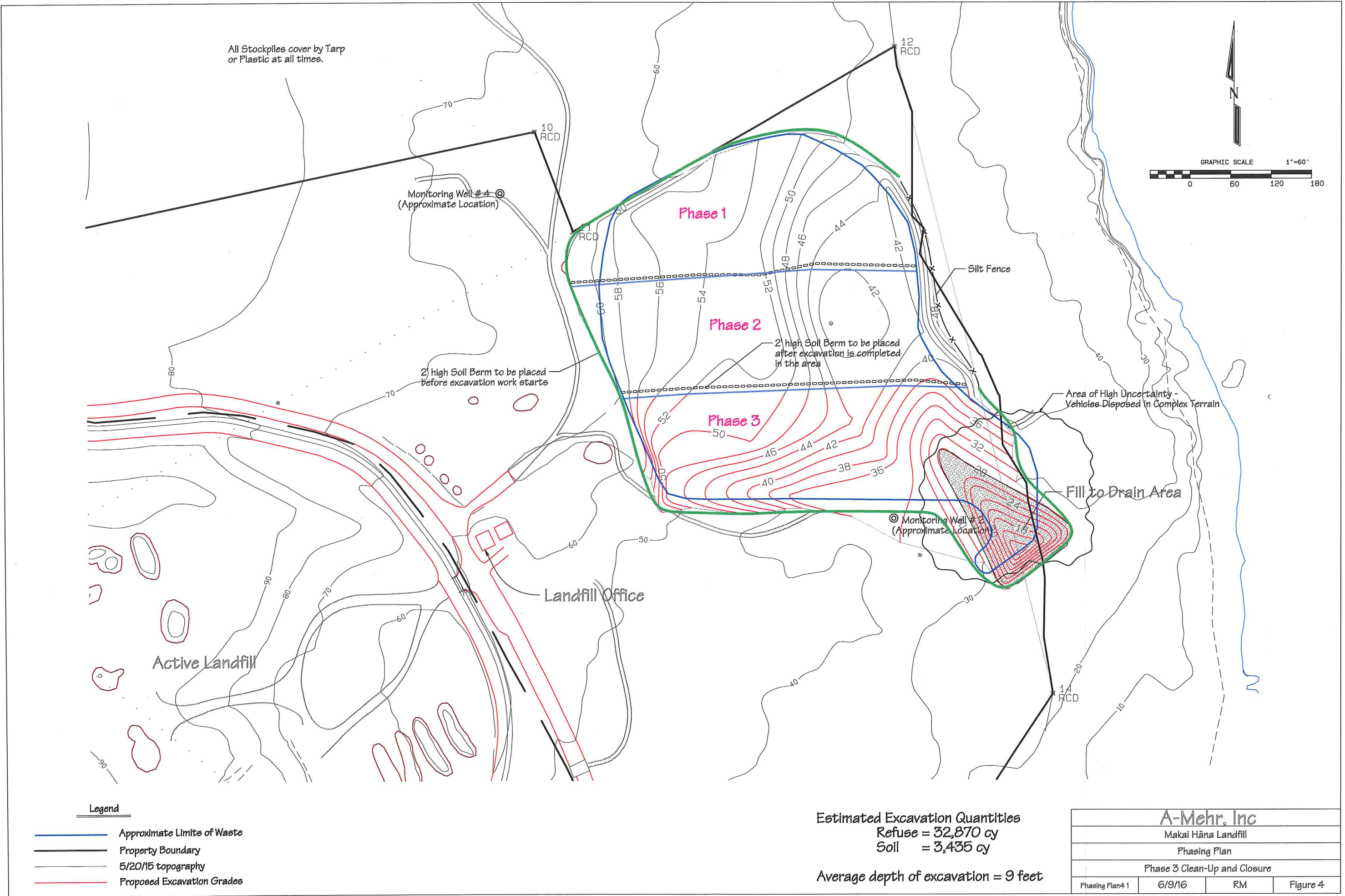
- Approximate Limits of Waste
- Property Boundary
- 5/20/15 topography
- Proposed Excavation Grades
- Temporary Slope Grades

Estimated Excavation Quantities  
 Refuse = 31,565 cy  
 Soil = 3,435 cy

Average depth of excavation = 11 feet

A-Mehr, Inc			
Makai Hāna Landfill			
Phasing Plan			
Phase 2 Clean-Up and Closure			
Phasing Plan 4.1	6/9/16	RM	Figure 3





## **EXHIBIT 7.**

**State Historic Preservation Division  
Letter Dated December 24, 2015**

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

JEFFREY T. PEARSON  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

December 24, 2015

Kyle Ginoza, Director  
County of Maui  
Department of Environmental Management  
[environmental.mgmt@co.maui.hi.us](mailto:environmental.mgmt@co.maui.hi.us)

Log No. 2015.04158  
Doc No. 1512MD50  
Archaeology

Aloha Mr. Ginoza,

**SUBJECT: Chapter 6E-8 Historic Preservation Review –  
Draft Archaeological Assessment Survey Report for 6.4 Acres with No New Sites  
Kawaipapa Ahupua'a, Hāna District, Island of Maui  
TMK (2) 1-3-006:012 (por.)**

Thank you for the opportunity to review the draft submittal titled *An Archaeological Assessment of a 6.4-Acre Portion of Land in Kawaipapa Ahupua'a, Hana District, Island of Maui (TMK (2) 1-3-06:012 [Portion])* by Fredericksen (Revised November 2015). We received the revised report on November 30, 2015. According to the submittal, project plans call for the eventual removal of the old Makai Landfill, with waste matter relocation onto a portion of the adjacent active Mauka Landfill, which is across old Waikoloa Road. The Project Area consists of 6.4 acre portion of the 34.380 acre parcel. We previously reviewed an earlier draft of this report and requested revisions (*Log No. 2015.02635, Doc No. 1510JP02*). This survey was recommended by SHPD during consultation with the DLNR Land Division in March of 2015 (*Log No. 2015.00536, Doc No. 1503JP01*).

Fieldwork was conducted by one archaeologist on May 29 and June 3, 2015. Fourteen (14) trenches were mechanically excavated; no historic properties were encountered. Due to negative findings from the inventory survey this report has been submitted as an Archaeological Assessment. Archaeological monitoring is recommended during initial earthmoving activities around the margins of the old landfill and we concur with that recommendation. An archaeological monitoring plan will be submitted to SHPD for review and approval pursuant to Hawai'i Administrative Rule (HAR) §13-279. The draft archaeological assessment meets the requirements specified in HAR §13-275 and is accepted. Please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Please contact me at (808) 243-4641 or email [Morgan.E.Davis@hawaii.gov](mailto:Morgan.E.Davis@hawaii.gov) if you have any questions or concerns about this letter.

Mahalo,

Morgan E. Davis  
Lead Archaeologist, Maui Section

cc: County of Maui  
Department of Planning  
[Planning@co.maui.hi.us](mailto:Planning@co.maui.hi.us)

County of Maui  
Department of Public Works – DSA  
[Renev.Segundo@co.maui.hi.us](mailto:Renev.Segundo@co.maui.hi.us)

County of Maui  
Cultural Resources Commission  
[Annalise.Kehler@co.maui.hi.us](mailto:Annalise.Kehler@co.maui.hi.us)

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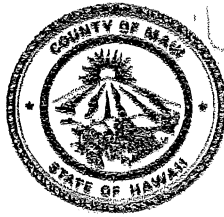


### **III. ATTACHMENT**

## **ATTACHMENT 1.**

**Finding of No Significant Impact  
Determination Letter and Final  
Environmental Assessment  
(CD Rom)**

ALAN M. ARAKAWA  
Mayor  
STEWART STANT  
Director  
MICHAEL M. MIYAMOTO  
Deputy Director



FILE COPY

MICHAEL RATTE  
Solid Waste Division

ERIC NAKAGAWA, P.E.  
Wastewater Reclamation Division

JAN 23 2016

COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
2050 MAIN STREET, SUITE 1C  
WAILUKU, MAUI, HAWAII 96793

December 29, 2015

OFF. OF ENVIRONMENTAL  
QUALITY CONTROL

16 JAN 11 P 3:21

RECEIVED

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

**SUBJECT: FINAL ENVIRONMENTAL ASSESSMENT (EA) FOR PROPOSED MAKAI HĀNA  
LANDFILL PROJECT AT TMK (2)1-3-006:007 and 012, HĀNA, MAUI, HAWAII**

Dear Mr. Glenn:

The County of Maui, Department of Environmental Management has determined a Finding of No Significant Impact (FONSI) for the Proposed Makai Hāna Landfill Project and hereby transmits the Final Environmental Assessment (FEA) FONSI. Please publish notice of availability for this project in the next available Office of Environmental Quality Control (OEQC) Environmental Notice.

Enclosed is a completed OEQC Publication Form, a copy of the FEA-FONSI, an Adobe Acrobat PDF file of the same, and an electronic copy of the publication form in MS Word. Simultaneous with this letter, our consultant has submitted the summary of the action in a text file by electronic mail to your office.

Please call Elaine Baker of the Solid Waste Branch at (808) 270-7875 or consultant Colleen Suyama of Munekiyo Hiraga at (808) 244-2015 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Stewart Stant".  
Stewart Stant  
Director of Environmental Management

Enclosures

cc: Elaine Baker, Department of Environmental Management, Solid Waste Division (w/one copy of Final EA)  
Ali Mehrazarin (w/one copy of Final EA)  
Colleen Suyama, Munekiyo Hiraga (w/out enclosures)

# **Final Environmental Assessment**

## **PROPOSED MAKAI HĀNA LANDFILL CLEAN-UP AND CLOSURE (TMK (2) 1-3-006:012(por.) and 007(por.))**

**Prepared for:**

**County of Maui,  
Department of Environmental Management**

**January 2016**

**Copyright © 2016,  
by Munekiyo Hiraga**



**MUNEKIYO HIRAGA**

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## **List of Acronyms**

AFNSI	Anticipated Finding of No Significant Impact
AAR	Archaeological Assessment Report
AIS	Archaeological Inventory Survey
ALISH	Agricultural Lands of Importance to the State of Hawai‘i
AMSL	Above Mean Sea Level
BLNR	Board of Land and Natural Resources
BMP	Best Management Practice
CDUA	Conservation District Use Application
CDUP	Conservation District Use Permit
CFR	Code of Federal Regulations
CIA	Cultural Impact Assessment
CM/SEC	Centimeters per Second
c.y.	Cubic Yards
DA	U. S. Department of the Army
DEM	Department of Environmental Management
DLNR	Department of Land and Natural Resources
DOE	Department of Education
DOH	Department of Health
DWS	Department of Water Supply
EA	Environmental Assessment
EAL	Environmental Action Level
EIS	Environmental Impact Statement
EO	Executive Order
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Findings of No Significant Impact
HAR	Hawai‘i Administrative Rules
HDOT	Hawai‘i Department of Transportation (also see SDOT)
HRS	Hawai‘i Revised Statutes
HSA	Hawai‘i Stream Assessment
ISWMP	Integrated Solid Waste Management Plan
IWS	Individual Wastewater System
LSB	Land Study Bureau
MCC	Maui County Code
MECO	Maui Electric Company, Ltd.



MIP	Maui Island Plan
MPD	Maui Police Department
MSL	Mean Sea Level
MSW	Municipal Solid Waste
MSWLF	Municipal Solid Waste Landfill
NRCS	Natural Resources Conservation Service
NPDES	National Pollutant Discharge Elimination System
OCCL	Office of Conservation and Coastal Lands
OEQC	Office of Environmental Quality Control
RGB	Rural Growth Boundary
rLW	Lava flow, aa
SDOT	State Department of Transportation
SDWB	Safe Drinking Water Branch, Department of Health
SHPD	State Historic Preservation Division
SLUC	State Land Use Commission
SMA	Special Management Area
STB	Small Town Boundary
SUP	State Special Use Permit
UGB	Urban Growth Boundary
USACE	U. S. Army Corps of Engineers
USDA	U. S. Department of Agriculture
USFWS	U. S. Fish and Wildlife Service
USGS	U. S. Geological Survey

## **Executive Summary**

<b>Project Name:</b>	Proposed Makai Hāna Landfill Clean-Up and Closure
<b>Type of Document:</b>	Final Environmental Assessment
<b>Legal Authority:</b>	Chapter 343, Hawai‘i Revised Statutes
<b>Determination:</b>	Finding of No Significant Impact
<b>Applicable Environmental Assessment review “Trigger”:</b>	a. Use of State Lands and County Funds b. Work in the Conservation District
<b>Location:</b>	TMK: (2) 1-3-006:012(por.) and 007(por.) Hāna Maui Island
<b>Applicant:</b>	County of Maui, Department of Environmental Management
<b>Proposing and Determination Agency</b>	County of Maui Department of Environmental Management 2050 Main Street, Suite 1C Wailuku, Hawai‘i 96793 Contact: Stewart Stant, Director Phone: (808) 270-5798
<b>Consultant:</b>	Munekiyo Hiraga 305 High Street, Suite 104 Wailuku, Hawai‘i 96793 Contact: Colleen Suyama Phone: (808) 244-2015
<b>Project Summary:</b>	The Hāna Landfill is comprised of two (2) sections (collectively referred to as Hāna Landfill). The currently active Hāna Landfill area is located on the west side (mauka side) of Waikoloa Road. The active landfill area covers an area of approximately 13.2 acres and lies within the State Land Use “Agricultural” District. The original dump area (Makai Hāna Landfill) is located on the east side (makai side) of

Waikoloa Road and has not been used for a number of years. The Makai Hāna Landfill covers an area of approximately 6.4 acres and lies in the State Land Use “Conservation” District. The Hāna Landfill is also located in the County of Maui’s Special Management Area.

After all disposal activities in the Makai Hāna Landfill were discontinued around 2003, most waste was covered with soil, although some areas of green waste were left without cover and allowed to decompose. Scrap metal was removed for recycling. Over time, most of the Makai Hāna Landfill area became covered with natural vegetation ranging from grass to heavy brush.

To bring the Makai Hāna Landfill area into compliance with Federal and State regulations, in March 2014, the County of Maui conducted a subsurface investigation to determine and document the limits, depth, and volume of the waste that was placed in the Makai Hāna Landfill. The investigation mapped the limits of the Makai Hāna Landfill area and estimated the volume of waste to be approximately 89,200 cubic yards (c.y.) and an additional 10,300 c.y. of clean soil would need to be excavated. The County of Maui, DEM proposes a clean closure which will involve removal of all the waste from the Makai Hāna Landfill and the transfer of removed waste across Waikoloa Road to the active Hāna Landfill area. Scrap metal will be set aside for hauling to a recycling facility.

# **I. PROJECT OVERVIEW**

# I. PROJECT OVERVIEW

## A. BACKGROUND

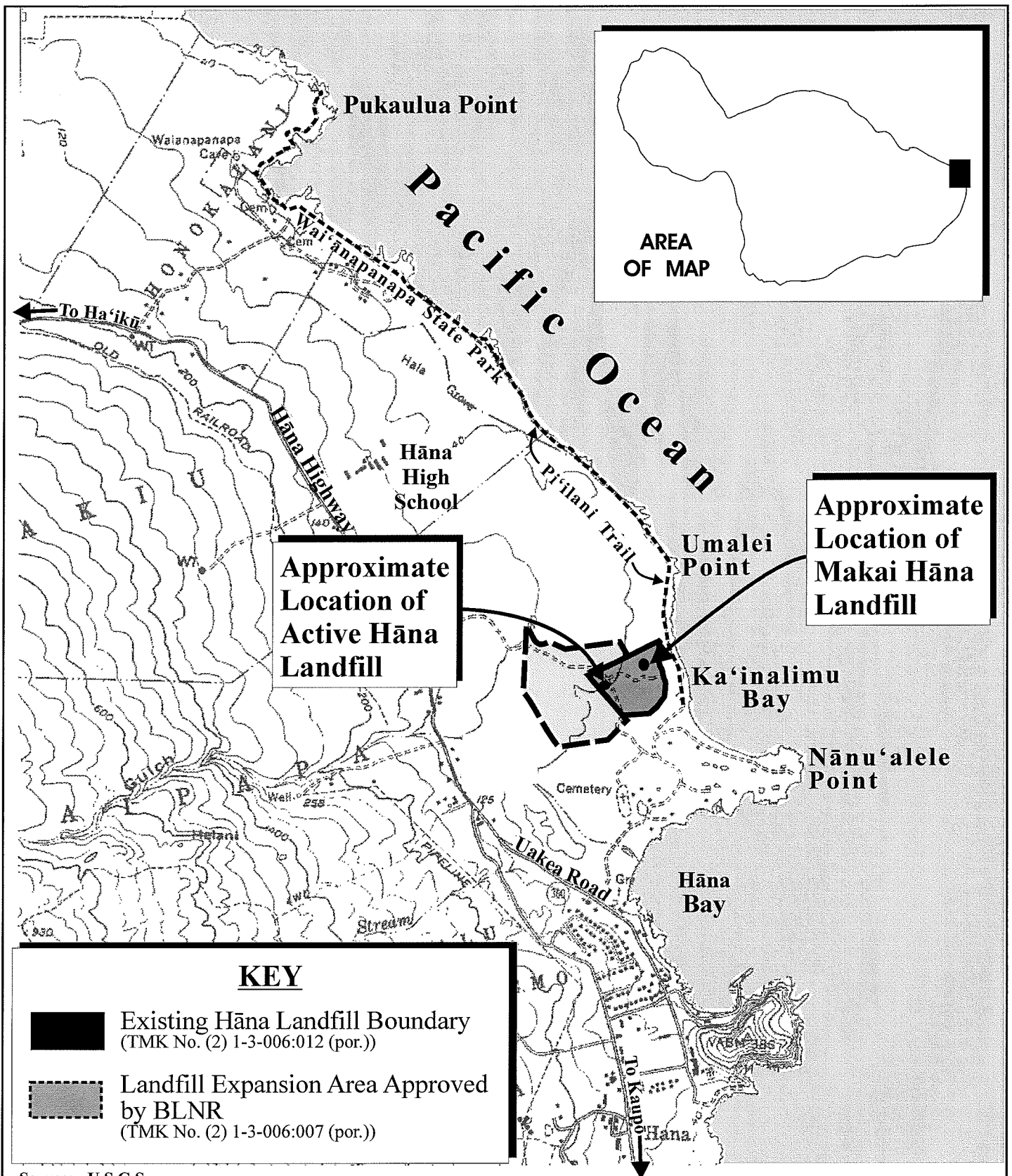
The County of Maui, Department of Environmental Management (DEM), Solid Waste Division, seeks to close the original dump area located on the east side of the active Hāna Landfill (hereafter referred to as the “Makai Hāna Landfill”), located in Hāna, Maui, identified by Tax Map Key 1-3-006:012 (por.) (Parcel 12). See **Figure 1** and **Figure 2**. Access to the landfill site is provided by Waikoloa Road via Hāna Highway.

In 1969, the State Board of Land and Natural Resources (BLNR) approved a right-of-entry in favor of the County of Maui to utilize a portion of Parcel 12, approximately 29.05 acres in area along with a 20-ft. wide road easement, for a garbage dump site. Since 1969, the Hāna Landfill has served as the sole disposal and recycling facility for the districts of Ke‘anae, Nahiku, Hāna, Kipahulu, and Kaupō. In 1984, the BLNR approved a request for issuance of an Executive Order (EO) placing the control and management of the portion of Parcel 12 to the County of Maui. See **Appendix “A”**. The remaining portion of Parcel 12 is a strip of land, approximately 250 ft. in width, between the eastern boundary of the landfill site and the Hāna coastline. This State-owned portion of Parcel 12 is excluded from the right-of-entry and subsequent Executive Order. Refer to **Figure 2**.

The State-owned portion of Parcel 12 and the eastern portion of the County landfill parcel (covered under the 1984 EO) are located within the State Land Use Conservation District. The remaining portion of Parcel 12 is located in the State Land Use Agricultural District. See **Figure 3**.

Landfill operations up to the early 2000’s were carried out in the area east or makai of Waikoloa Road in the portion of land in the Conservation district. Waste disposed in the Makai Hāna Landfill included municipal solid waste, green waste, construction and demolition waste, and scrap metal, including old automobiles. Around 2003, the Makai Hāna Landfill operations were closed. The portion of Parcel 12 lying west of Waikoloa Road outside the Conservation District continued to receive waste. This area is still in use and is the area of the current active landfill operations. Refer to **Figure 3**.

In 2007 due to encroachment of the landfill operations beyond Parcel 12 and into the adjacent State lands identified by TMK (2) 1-3-006:007 (por.) (Parcel 7), the DEM initiated land acquisition proceedings with the State Department of Land and Natural Resources (DLNR) to integrate an approximate 45.14-acre area, including the landfill



Source: U.S.G.S.

**Figure 1** Proposed Makai Hāna Landfill Clean-Up and Closure Regional Location Map

Prepared for: County of Maui, Department of Environmental Management

**MUNEKIYO HIRAGA**

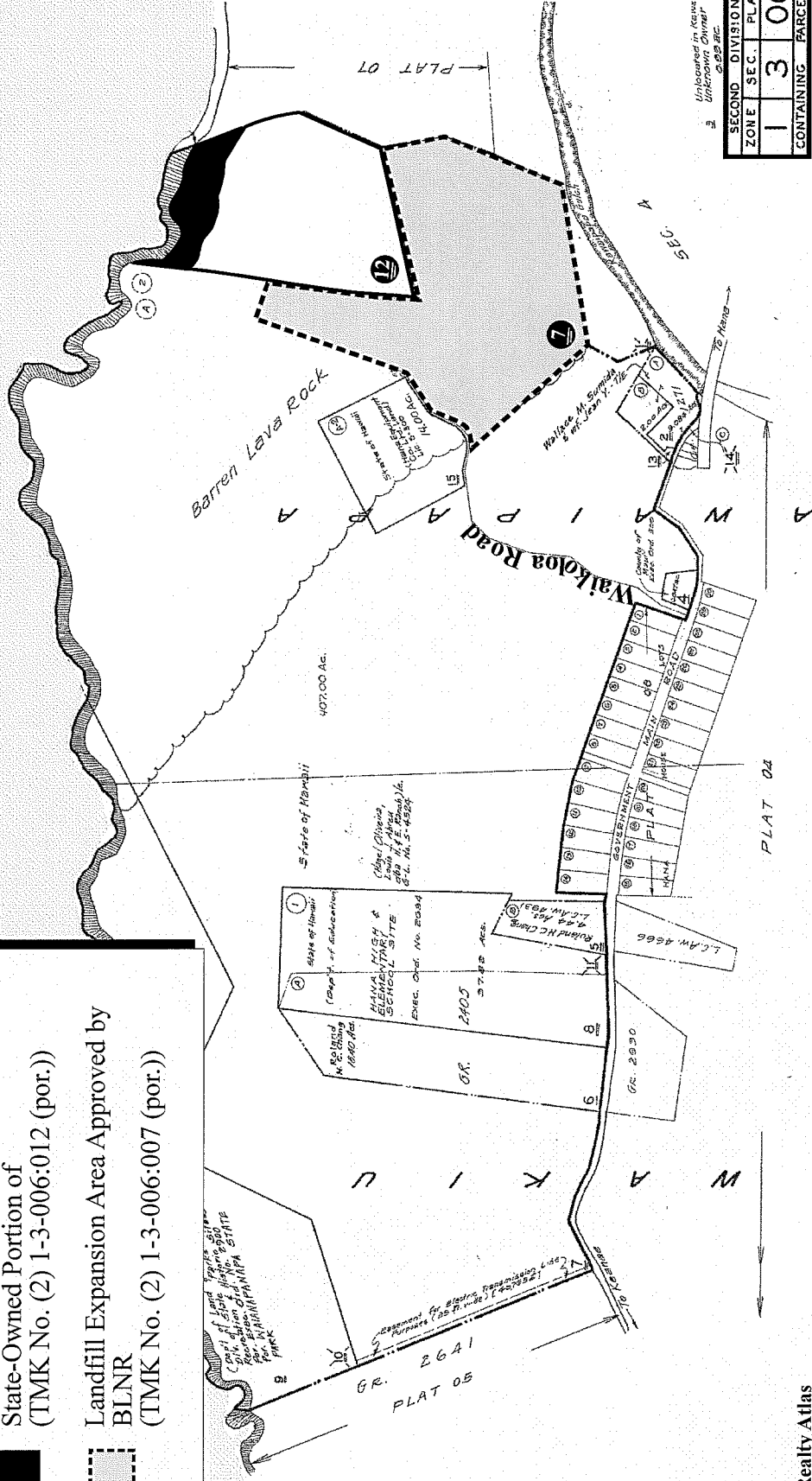
# KEY

Existing Hāna Landfill Boundary  
(TMK No. (2) 1-3-006:012 (por.))

State-Owned Portion of  
(TMK No. (2) 1-3-006:012 (por.))

Landfill Expansion Area Approved by  
BLNR  
(TMK No. (2) 1-3-006:007 (por.))

# Pacific Ocean



Source: Realty Atlas

## Figure 2 Proposed Makai Hāna Landfill Clean-Up and Closure

### Site Location Map



Prepared for: County of Maui, Department of  
Environmental Management



A-MEHR/HamaSolidWaste/Final EASite Location



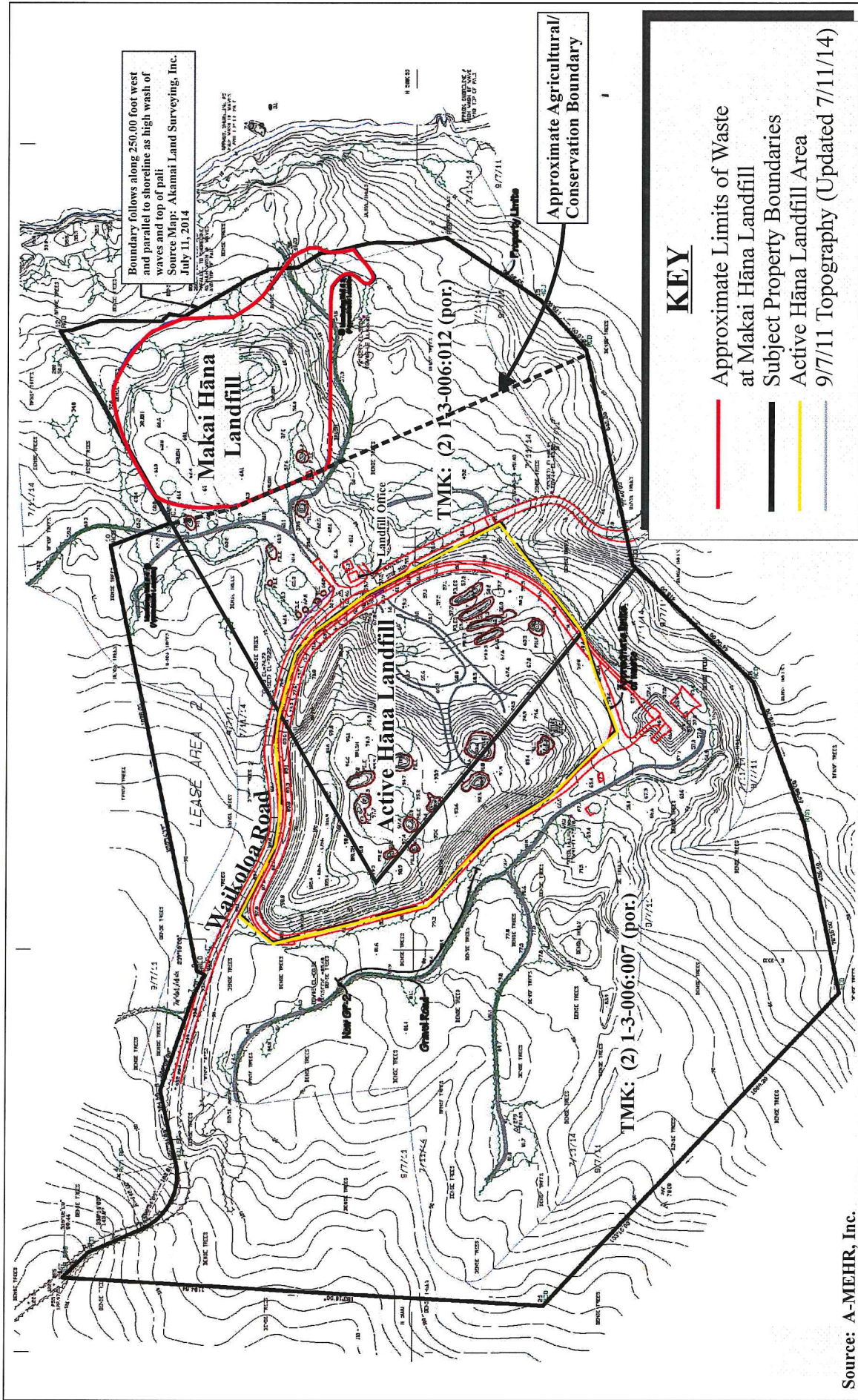


Figure 3 Proposed Makai Hāna Landfill Clean-Up and Closure Site Plan



Prepared for: County of Maui, Department of Environmental Management





encroachment, buffer zone and environmental monitoring areas, into the existing landfill site. Refer to **Figure 2**. A Chapter 343, Hawai'i Revised Statutes (HRS) Final Environmental Assessment (EA) was published in the Environmental Notice on December 8, 2007 for the acquisition. The BLNR took action on May 13, 2011 approving the transfer of State land to the DEM. See **Appendix "A-1"**. The DEM is currently involved in final subdivision process for the transfer of the management and control of this 45.14-acre area by Executive Order.

## **B. PROPOSED ACTIONS**

The Hāna Landfill is comprised of two (2) sections. Refer to **Figure 3**. The currently active Hāna Landfill area is located on the west side (mauka side) of Waikoloa Road. The active landfill area covers an area of approximately 13.2 acres and lies within the State Land Use "Agricultural" District. The original dump area (Makai Hāna Landfill) is located on the east side (makai side) of Waikoloa Road and has not been used for a number of years. The Makai Hāna Landfill covers an area of approximately 6.4 acres and lies in the State Land Use "Conservation" District. The Hāna Landfill is also located in the County of Maui's Special Management Area.

After all disposal activities at the Makai Hāna Landfill were discontinued around 2003, most waste was covered with soil, although some areas of green waste were left without cover and allowed to decompose. Scrap metal was removed for recycling. Over time, most of the Makai Hāna Landfill area became covered with natural vegetation ranging from grass to heavy brush.

The proposed action is necessary to comply with Title 40 of the Code of Federal Regulations (CFR), which sets forth minimum national criteria under the Resource Conservation and Recovery Act, for all municipal solid waste landfill (MSWLF) units and under the Clean Water Act. All MSWLF units that receive waste on or after October 9, 1993 are required to meet the provision of Title 40 which in the case of the Makai Hāna Landfill includes clean-up and removal or lining and covering the municipal solid waste (MSW) deposited at the Makai Hāna Landfill from 1993 (effective date of CFR 40) to 2003. CFR 40 regulations are mirrored in the State of Hawai'i, Hawai'i Administrative Rules (HAR) Title 11-58.1-17 which have also been approved by the US Environmental Protection Agency and authorize the State of Hawai'i Department of Health (DOH) to review and approve closure activities under the HAR rules. As such, the CFR regulations are met through compliance with the HAR Title 11-58.1-17.

Hawai'i solid waste regulations (HAR 11-58.1-17) establishes that owners or operators of all MSWLF units must install a final cover system that is designed to minimize

infiltration and erosion. The final cover system must be comprised of an erosion layer underlain by an infiltration layer as follows:

- a. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less, and
- b. Minimize infiltration through the closed MSWLF by the use of an infiltration layer that contains a minimum 18 inches of earthen material, and
- c. Minimize erosion of the final cover by the use of an erosion layer that contains a minimum six (6) inches of earthen material that is capable of sustaining native plant growth.

To bring the Makai Hāna Landfill area into compliance with Federal and State regulations, in March 2014, the County of Maui conducted a subsurface investigation to determine and document the limits, depth, and volume of the waste that was placed in the Makai Hāna Landfill during those years it was in active use. See **Appendix “B”**. The investigation mapped the limits of the Makai Hāna Landfill area, and estimated the volume of waste to be approximately 89,200 cubic yards (c.y.) and an additional 10,300 c.y. of clean soil would need to be excavated. Rather than closure in place which would require placement of a soil cap and engineered drainage facilities, as per a, b, and c above, the County of Maui, DEM proposes a clean closure which will involve removal of all the waste from the Makai Hāna Landfill and transfer of removed waste across Waikoloa Road to the active Hāna Landfill area. Scrap metal will be set aside for hauling to a recycling facility.

The clean closure of the Makai Hāna Landfill will involve the following procedures (Refer to **Appendix “B”**):

**1. Removal Protocol**

- a. Survey and stake the limits of waste.
- b. Clear and grub vegetation from an area phased for waste removal. In order to minimize erosion, the disturbed area should be limited to the limits of each phase of removal.
- c. Strip existing cover soil to expose refuse, and stockpile the soil for any fill required subsequently for grading purposes, with any excess made

available for use as daily cover in the active Hāna Landfill.

- d. Excavate refuse to expose clean native soil, and haul refuse to a process area or the active landfill.
- e. If significant refuse is found at the surveyed limits of waste, expand the excavated area until all refuse has been removed.
- f. Process the refuse as follows:
  - (1) Remove large metal items to a scrap metal stockpile for transport to an appropriate licensed scrap metal dealer.
  - (2) Remove abandoned automobiles buried in gullies at the southeast corner of the site. As they are removed, additional excavation will be conducted to ensure that all vehicles are removed and that the area is excavated to the approximate original grades.
  - (3) Remove any large wood items including stumps or logs to a separate stockpile. Depending on the character and quantity of these materials they may either be processed or disposed in the active Hāna Landfill.
  - (4) Depending on conditions, remove other items or materials that can be readily separated for recycling. This may include concentrated volumes of clean green waste.
  - (5) Transfer the remaining refuse to the active Hāna landfill for disposal.

## **2. Post Removal Soil Testing**

- a. After all refuse has been excavated from an area, soil samples will be collected from the exposed subgrade, and tested to determine compliance with Department of Health (DOH) Environmental Action Levels (EALs). In addition, samples will be collected from native soils in areas hydrogeologically upgradient from the landfill, to determine background levels of any chemical constituents detected in subgrade soil within the landfill footprint. Any areas where subgrade levels with soil constituents exceeding EALs and background concentrations will be further excavated to expose bedrock or to soils that test within background concentrations. Refer to **Appendix “B”** for additional detail regarding the soil sampling

and testing program.

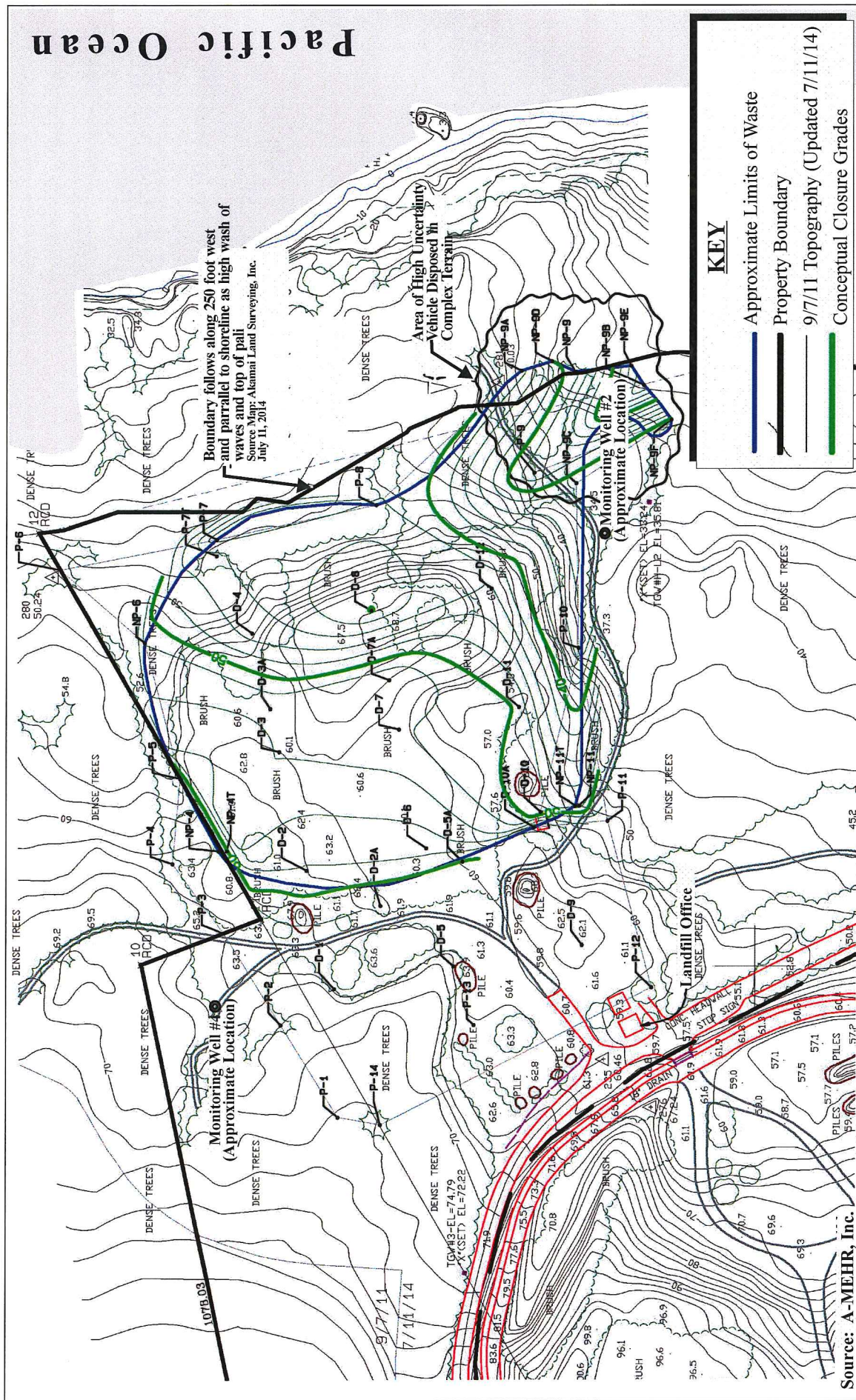
- b. No area of exposed subgrade will be backfilled, covered with soil or revegetated until testing has demonstrated soil contaminant levels are below EAL values.
- c. Survey the disturbed area and prepare an as-built drawing of the excavated conditions, including any encroachment beyond permitted site boundaries.
- d. Grade the site to achieve a relatively uniform slope, using stockpiled cover soil as needed to fill any low spots that would collect runoff.
- e. Install erosion controls and plant the site to an appropriate grass mixture.

The removal of waste will occur in three (3) phases over a period of three (3) years using County resources and personnel or contractors. Phase I will involve removal of approximately 25,000 c.y. of refuse and 3,000 c.y. of soil. Phase 2 will involve removal of approximately 32,000 c.y. of refuse and 3,000 c.y. of soil. The final Phase 3 will involve removal of approximately 33,000 c.y. of refuse and 3,000 c.y. of soil. See **Appendix “B-1”**. The waste excavation and removal will be conducted in a series of small stages in order to minimize the area of exposed waste. Each stage will include removal of vegetation and cover soil, excavation of waste, removal of recyclable scrap metal, and hauling waste to the active landfill for disposal. After all refuse has been removed, the site will be graded, erosion controls will be installed, and the site will be planted with an appropriate mixture of grasses and retained, to the extent possible, in its pre-landfill restored topographical condition. See **Figure 4**.

## **C. REQUIRED LAND USE ENTITLEMENTS**

The DEM has been in coordination with the DOH, Solid and Hazardous Waste Branch, regarding closure of the Makai Hāna Landfill. DOH is currently reviewing the proposed closure plan for the Makai Hāna Landfill (refer to Appendix “B”). The DEM has also been in coordination with the Office of Conservation and Coastal Lands (OCCL) to seek concurrence and define applicable regulatory requirements pertaining to a Conservation District Use Permit (CDUP) for the proposed removal of the municipal waste located within the Conservation District. Further, the Makai Hāna Landfill is located in the Special Management Area (SMA). Coordination with the County of Maui, Department of Planning has determined that a SMA application will need to be processed for the implementation of the closure plan.





**Figure 4 Proposed Makai Hāna Landfill Clean-Up and Closure**  
Conceptual Closure Final Grades

NOT TO SCALE



Prepared for: County of Maui, Department of Environmental Management



A-MEHR Hana Solid Waste/Final EA/Final Grades

## **D. MAKAI LANDFILL ENCROACHMENTS**

Two (2) areas of potential encroachment in the east and north boundaries of the Makai Hāna Landfill were identified during the field investigation for the closure plan. Refer to **Appendix “B”** and **Figure 4**. Each of these encroachments is discussed below:

### **1. East Boundary Encroachment**

The easterly boundary of the Makai Hāna Landfill is defined in the 1984 EO as a meandering line “250.00 feet west and parallel to high water mark at seashore”, referring to the shoreline of Kaʻinalimu Bay. The waste limits as determined in the field investigation indicates that a small area in the southeast part of the site encroaches beyond the site boundary by approximately 30 feet. Refer to **Figure 4**.

### **2. North Boundary Encroachment**

**Figure 4** also shows the north site boundary of the limits of waste. The area was defined in relation to the test pits used to determine the extent of waste in the area. Three (3) test pits near the boundary (P-4, NP-4, and P-5) were excavated to identify evidence of waste. Point P-4, the originally staked position, was located approximately 60 feet outside the site boundary based on previous County estimates of encroachment into the Conservation district. Excavation at that location found no waste. Additional test pits and trenching established the waste limits to be located within a few feet of the site boundary.

Based on the data and field observations carried out to define the limits of waste, it is estimated that any encroachment of waste into the Conservation District that is outside the boundaries granted by the 1984 EO for waste disposal is, at most, confined to a very small area. The proposed clean closure will include location of waste limits around the entire site perimeter. After completion of excavation, the limits adjacent to the site boundary will be surveyed to identify any areas of encroachment beyond the originally permitted landfill boundaries. In consultation with the OCCL, such areas, if any, will be restored to conditions acceptable to the DLNR.

**E. CHAPTER 343, HAWAI'I REVISED STATUTES (HRS)**  
**REGULATORY CONTEXT**

The project involves the use of land owned by the State of Hawai'i, County of Maui funding and use within the Conservation District, which are all triggers requiring the processing of an EA pursuant to Chapter 343, HRS and Section 11-200-6, Hawai'i Administrative Rules (HAR), Environmental Impact Statement Rules.

This EA has been prepared to specifically address the proposed clean-up and closure of the Makai Hāna Landfill's technical characteristics, potential environmental impacts and alternatives, and advances findings and conclusions relative to the significance of the overall action. The County of Maui, DEM is the proposing and determination agency for the EA.

The EA will be the primary technical supporting document for the SMA and CDUP applications for the proposed action.

## **II. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES**



## **II. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES**

### **A. PHYSICAL ENVIRONMENT**

#### **1. Surrounding Land Uses**

##### **a. Existing Conditions**

The project site is located north of Hāna Bay and accessed by Waikoloa Road via Hāna Highway. The State of Hawai'i owns the adjacent property to the north and west of the project site, identified by TMK (2)1-3-006:007 (Parcel 7). The State parcel is approximately 407 acres in size. A preliminary subdivision of Parcel 7 has been approved to create a separate parcel for the 45.14-acre lot to be transferred to the County for the Hāna Landfill. There is one (1) lease over the area to Lloyd Abreu for cattle grazing. The parcel to the south of the subject property is currently vacant, owned by Keola Hana Maui, Inc. East of the project site is Ka'inalimu Bay and the Pacific Ocean.

The remaining portion of Parcel 12, between the landfill and shoreline, is owned by the State and is a conservation buffer and includes the Piilani Trail, a historic foot trail along the coastline.

##### **b. Potential Impacts and Mitigation Measures**

The Hāna Landfill has been utilized by the County for solid waste disposal since 1969. The proposed project involves the clean-up and closure of the Makai Hāna Landfill area (approximately 6.4 acre area) in the Conservation District which was formerly used for waste disposal. The proposed project is not anticipated to result in adverse impacts to surrounding land uses in the project vicinity. The additional 45.14 acres of buffer area around the landfill will further mitigate adverse potential impacts to surrounding land uses. The clean-up of the Makai Hāna Landfill and disposal of the municipal solid waste to the current active Hāna Landfill site is not anticipated to adversely impact the character of the neighborhood nor surrounding land uses.

The purpose of the proposed action is to bring the landfill into compliance with applicable Federal and State regulations. Upon the removal of all solid waste in the Makai Hāna Landfill area the site would be restored to its approximate pre-waste disposal topographic condition. The excavated area will be vegetated to stabilize soil and mitigate stormwater runoff.

## **2. Climate**

### **a. Existing Conditions**

Like most areas of Hawai‘i, Hāna’s climate is relatively uniform year-round. Hāna’s tropical latitude, its position relative to storm tracts and the Pacific anticyclone, and the surrounding ocean combine to produce this stable climate. Variations in climate among different regions, then, is largely left to local terrain.

Average temperatures in Hāna range between 63 degrees and 84 degrees Fahrenheit. August is historically the warmest month, while January and February are the coolest (County of Maui, Office of Economic Development, 2013).

Rainfall in Hāna is highly seasonal, with most precipitation occurring between October and April when winter storms hit the area. Situated on the leeward side of Haleakalā, this region receives most of its rainfall in late afternoon and early evening, after seabreezes take moisture upslope during the day. Precipitation data collected in the region indicate the project site receives approximately 70 to 75 inches of rain a year.

Wind patterns in the Hāna area are also seasonal. The northeasterly tradewind occurs 90 percent of the time during the summer, and just 50 percent of the time in the winter. Wind patterns also vary on a daily basis, with tradewinds generally being stronger in the afternoon. During the day, winds blow onshore toward the warmer land mass. In the evening, the reverse occurs, as breezes blow toward the relatively warm ocean.

### **b. Potential Impacts and Mitigation Measures**

The proposed clean-up and closure of the Makai Hāna Landfill is not anticipated to present significant adverse impacts on local climatic conditions.

### 3. **Topography and Soils**

#### a. **Existing Conditions**

The U.S. Department of Agriculture Natural Resources Conservation Service (formerly Soil Conservation Service) designates various associations on the island of Maui and classifies the soil in its *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai*. The project site is located within the Hāna-Makaalae-Kailua association. See **Figure 5**. This area contains moderately deep and deep, gently sloping to steep, well-drained soils. The texture ranges from moderately fine to fine subsoils. Lava flows, a‘a (rLW) underlay the project site, consisting of geologically recent lava flows. See **Figure 6**. The flows are a mass of clinkery, hard, glassy, sharp pieces of lava, making the land difficult to traverse. This miscellaneous land type is often used for water supply, wildlife habitat, and recreation (U.S. Department of Agriculture Natural Resources Conservation Service).

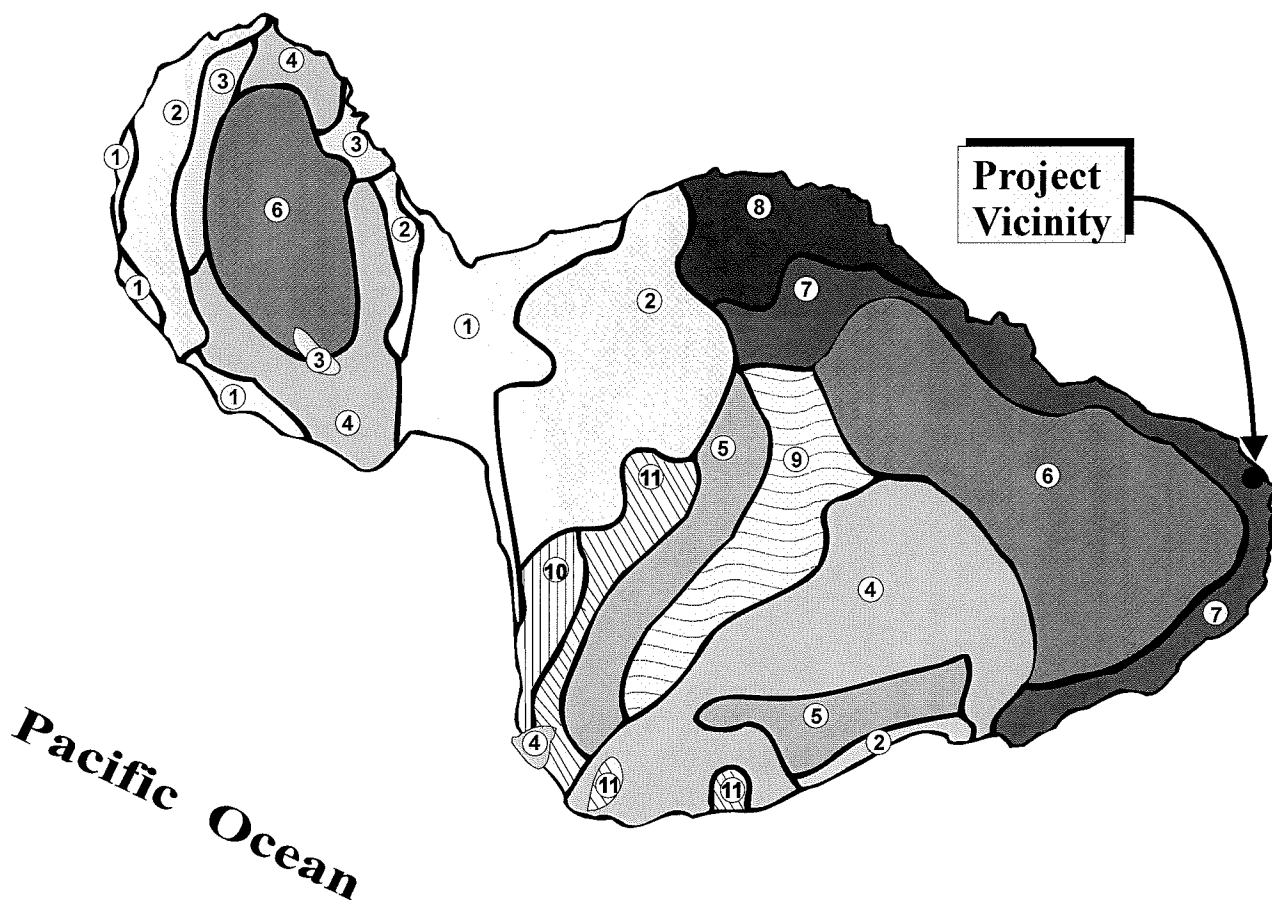
Topography underlying the landfill slopes gently in a west to east direction, and is not subject to landslides or other types of mass movement. Natural elevations in Parcel 12 range from 63 feet to 30 feet above mean sea level (amsl).

#### b. **Potential Impacts and Mitigation Measures**

The proposed project will excavate a total of approximately 89,200 c.y. of municipal solid waste and approximately 10,300 c.y. of soil from the Makai Hāna Landfill. Grading and excavation activities associated with the clean-up will be completed in accordance with Chapter 20.08, Soil Erosion and Sedimentation Control of the Maui County Code and the permit requirements of the State of Hawai‘i, Department of Health (DOH) and the National Pollutant Discharge Elimination System (NPDES). The clean-up will be carried out in phases over a number of years. Upon completion of each phase of the clean-up activities, the phased clean-up area will be restored to its approximate pre-existing topographical conditions. The area of alteration will be limited to each phase of operations and eventually cover an approximate 6.4 acre land area. In general, adverse impacts to topography and soil conditions in the area of the Makai Hāna Landfill site are not anticipated as a result of solid waste clean-up.

# LEGEND

- |  |                                     |
|--|-------------------------------------|
| ① Pulehu-Ewa-Jaucas association                | ⑦ Hana-Makaalae-Kailua association  |
| ② Waiakoa-Keahua-Molokai association           | ⑧ Pauwela-Haiku association         |
| ③ Honolua-Olelo association                    | ⑨ Laumaia-Kaipoi-Olinda association |
| ④ Rock land-Rough mountainous land association | ⑩ Keawakapu-Makena association      |
| ⑤ Puu Pa-Kula-Pane association                 | ⑪ Kamaole-Oanapuka association      |
| ⑥ Hydrandepts-Tropaquods association           |                                     |



Source: U.S. Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service)

**Figure 5** Proposed Makai Hāna Landfill  
Clean-Up and Closure  
Soil Association Map

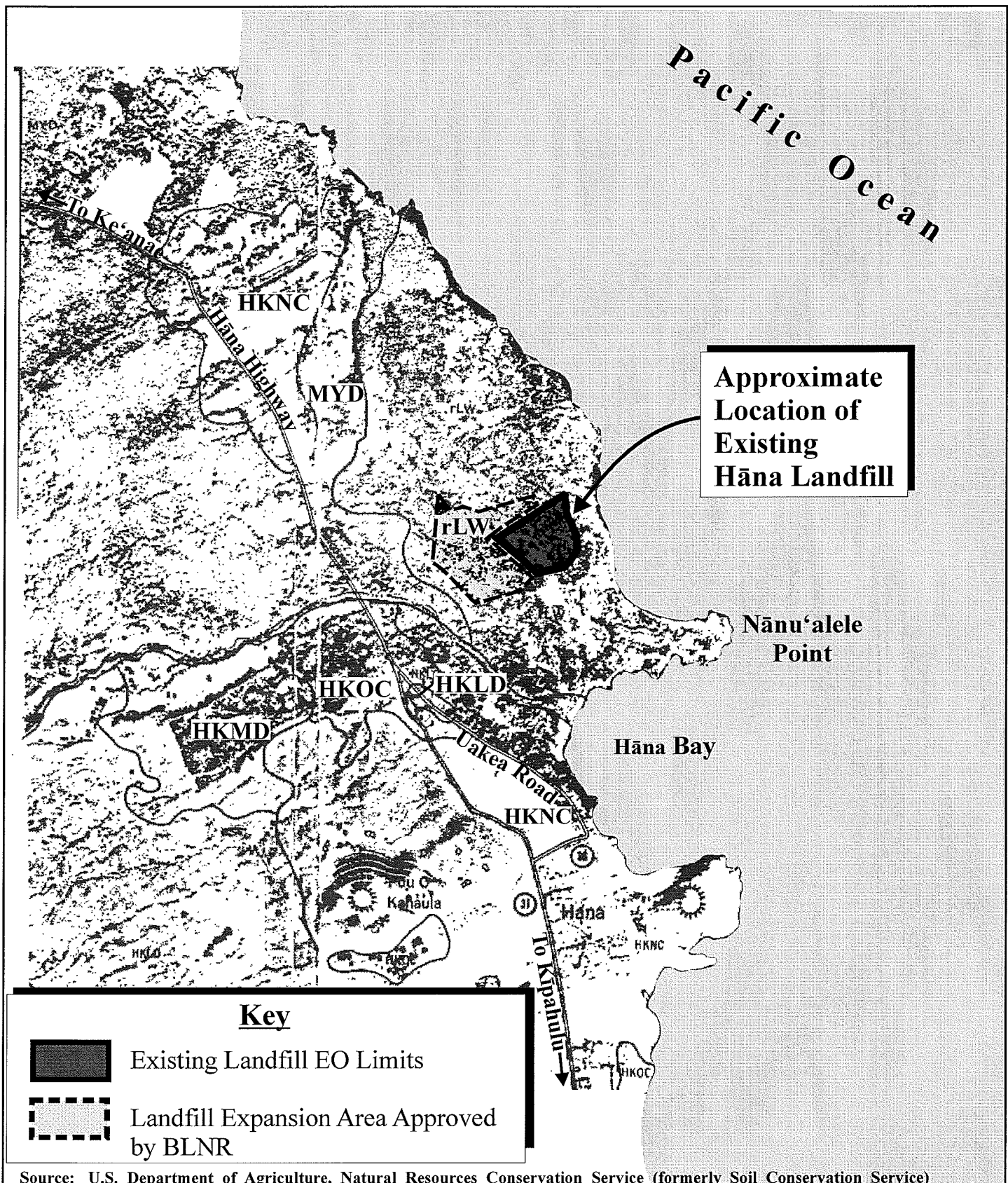
NOT TO SCALE



Prepared for: County of Maui, Department of  
Environmental Management

**MUNEKIYO HIRAGA**

A-MEHR\HanaSolidWaste\Final EA\Soil



**Figure 6**      **Proposed Makai Hāna Landfill**  
**Clean-Up and Closure**  
**Soil Classification Map**



Prepared for: County of Maui, Department of  
Environmental Management

**MUNEKIYO HIRAGA**

A-MEHR\HanaSolidWaste\Final EA\Soil Classification

The excavated municipal solid waste will be sorted for recyclable material and metals. The remaining municipal solid waste will be disposed at the existing active landfill area. There is sufficient capacity at the existing landfill to handle the approximately 89,200 c.y. of solid waste and 10,300 c.y of soil cover.

#### **4. Flood and Coastal Hazards**

##### **a. Existing Conditions**

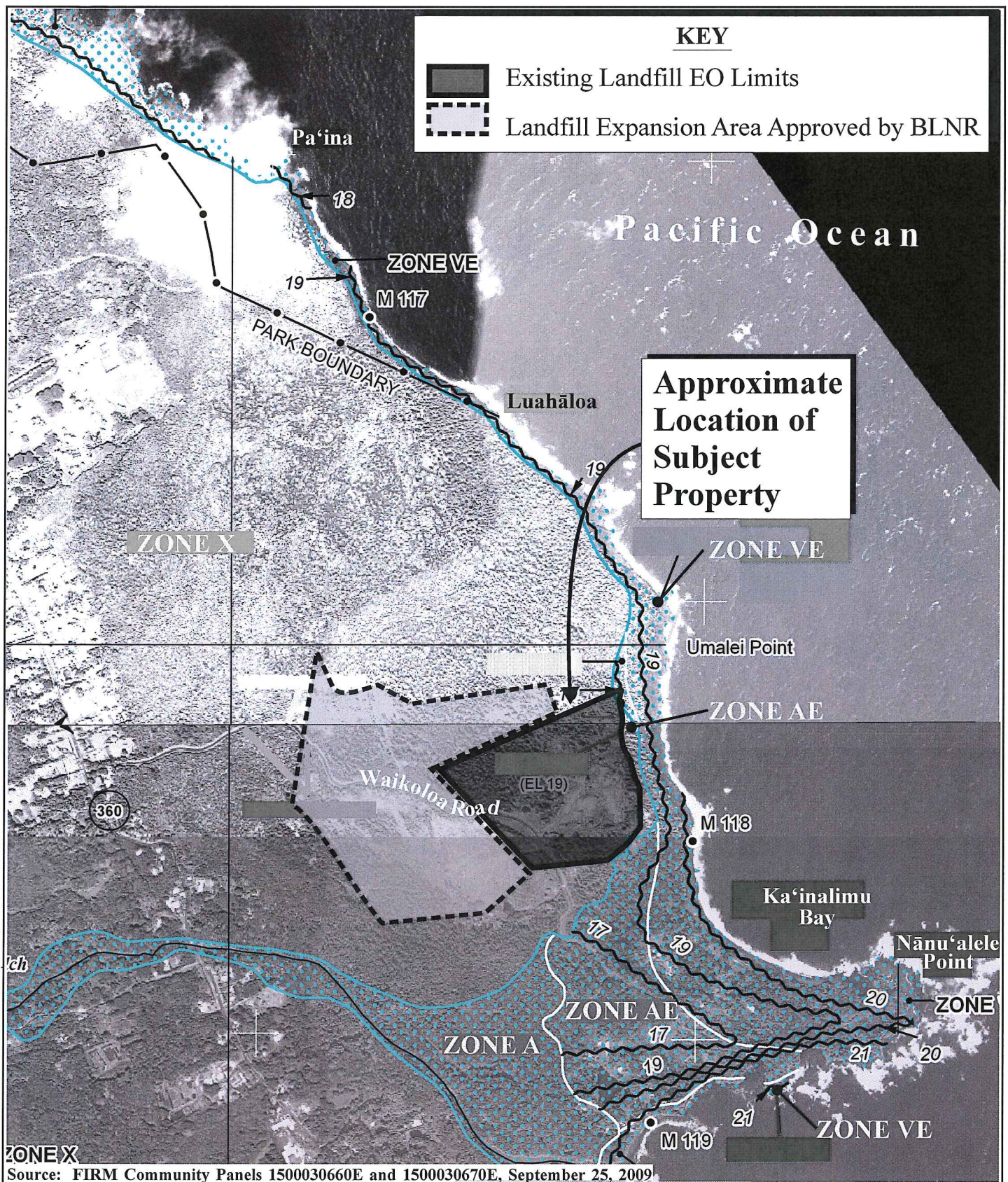
The Flood Insurance Rate Map (FIRM) (FIRM Community Panels 1500030660E and 1500030670E – September 25, 2009) for this region indicates that the majority of the landfill property is in Flood Zone X, an area of low flood risk and minimal flooding with no development restrictions. Two (2) small areas along the eastern boundary of the Makai Hāna Landfill are in Flood Zone AE. Zone AE is a special flood hazard area subject to inundation by the one (1) percent annual chance flood with base flood elevation of approximately 17 feet. See **Figure 7**. The proposed clean-up and closure action will occur in upland areas, located at elevations in excess of 20 feet amsl. The portion of Zone AE affected by the proposed action will be graded and vegetated to mitigate stormwater runoff. It is noted that the landfill clean-up and active landfill area are located beyond the reaches of the tsunami inundation zone. A Special Flood Hazard Development Permit will be secured from the Planning Department, prior to the start of construction.

According to the University of Hawaii Sea Grant College Program, “*Sea Level Rise and Coastal Land Use in Hawaii: A Policy Tool Kit for State and Local Governments, 2011*” report, sea levels are rising due to climate change. According to the report, it recommends using sea level rise benchmarks of 1-foot by year 2050 and 3-feet by 2100 for Hawai‘i. The Makai Hāna Landfill is located between 30 to 63 feet amsl and is not expected to be affected by the projected sea level rise.

##### **b. Potential Impacts and Mitigation Measures**

The proposed action will occur above the base flood elevation and beyond the reaches of the tsunami inundation zone. To ensure that potential adverse impacts associated with flooding are avoided, the DEM will grade





**Figure 7**

**Proposed Makai Hāna Landfill Clean-Up and Closure Flood Insurance Rate Map**



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**MUNEKIYO HIRAGA**

A-MEHR\HanaSolidWaste\Final EA\FIRM



the clean-up area site to achieve a relatively uniform slope, using stockpiled soil as needed to fill any low spots that would collect runoff. DEM will also install erosion control measures such as planting soil cover to prevent adverse soil erosion impacts.

**5. Streams and Groundwater**

**a. Existing Conditions**

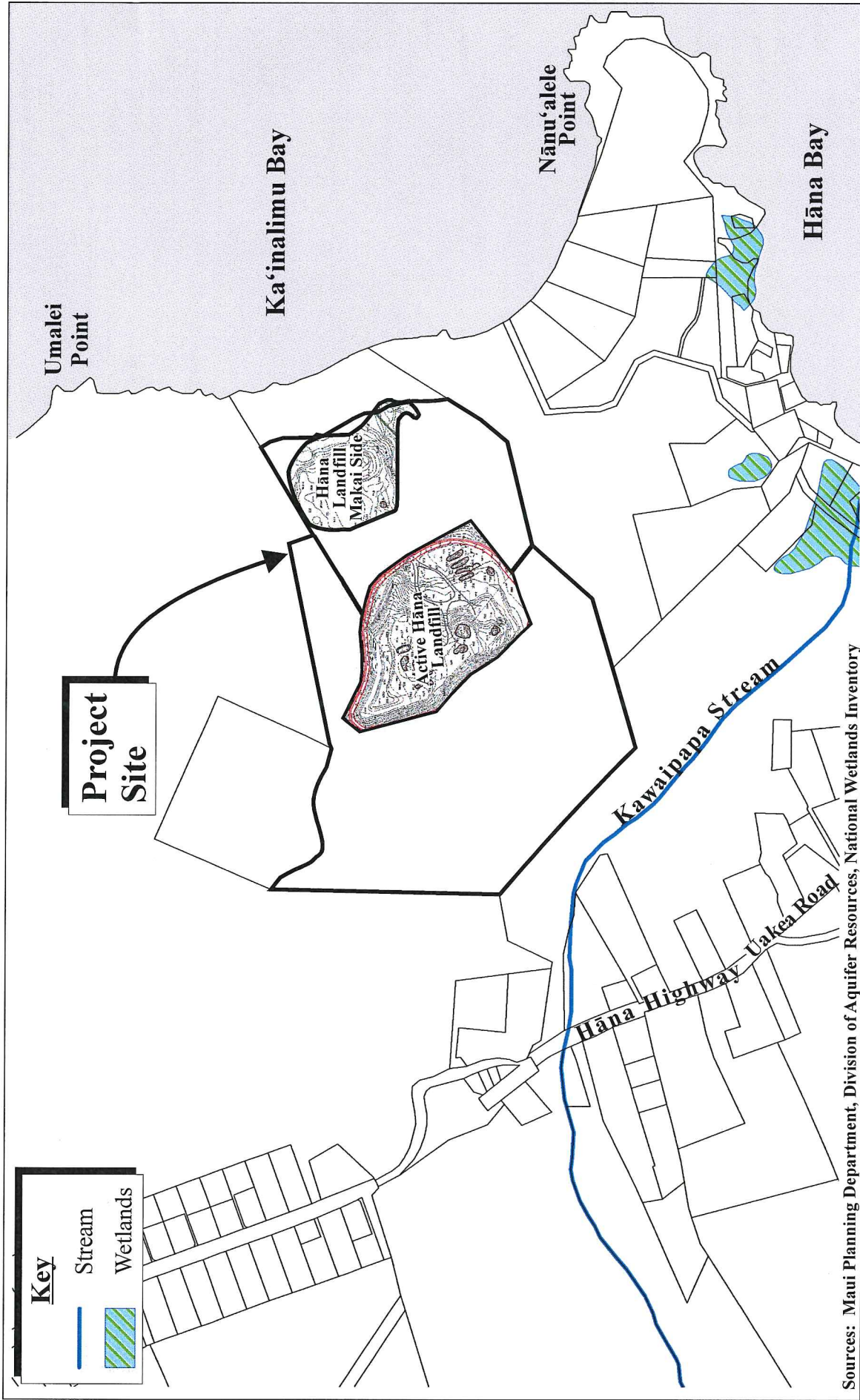
There are no streams or wetlands located in the immediate vicinity of the subject property. See **Figure 8**. According to topographical maps prepared by the United States Geographical Survey, the Kawaipapa Stream is located approximately 1,500 feet to the south and west of the landfill.

The Hawai'i Stream Assessment, a Preliminary Appraisal of Hawai'i's Stream Resources (HSA) was compiled by the State Department of Land and Natural Resources, Commission on Water Resource Management and represents a first step in the identification of streams and rivers with significant natural and cultural qualities which may be appropriate for protection. The HSA designates the Kawaipapa Stream as "interrupted", flowing year-round in upper portions, and intermittently at lower elevations. It also notes that the Kawaipapa Stream has moderate recreational resources related to swimming opportunities, and substantial cultural resources related to historic sites and taro cultivation. The basal groundwater underneath the landfill occurs in the Honomaunu formations. The aquifer beneath the landfill is part of the Kawaipapa System of the Hāna sector (URS Corporation, September 2006).

**b. Potential Impacts and Mitigation Measures**

There are no streams or wetlands located in the immediate vicinity of the Makai Hāna Landfill project site. Nevertheless, Best Management Practices (BMPs) will be utilized during grading activities in order to prevent the contamination of the downstream environments. In addition, groundwater monitoring and testing is undertaken by the DEM quarterly to ensure that landfill operations do not result in adverse impacts to downstream environments. Groundwater from the four (4) monitoring wells will continue to be sampled and analyzed for the Detection Monitoring Program monitoring parameters and submitted to DOH for





Sources: Maui Planning Department, Division of Aquifer Resources, National Wetlands Inventory

**Figure 8** Proposed Makai Hāna Landfill Clean-Up and Closure  
Kawaipapa Stream and Wetland Map

NOT TO SCALE

Prepared for: County of Maui, Department of Environmental Management



**MUNEKIYO HIRAGA**

review. Any required mitigation to groundwater quality will be carried out pursuant to DOH requirements.

After all refuse has been removed from the Makai Hāna Landfill area, soil samples from the exposed subgrade will be collected and tested to determine compliance with DOH Environmental Action Levels (EALs).

Refer to **Appendix “B”**. Any areas where subgrade soil constituents exceed EALs will be further excavated to expose bedrock or soils that test within acceptable concentrations.

In summary, the proposed action is not anticipated to present significant adverse impacts on streams and groundwater resources.

## **6. Flora, Fauna and Avifauna**

### **a. Existing Conditions**

The project area is heavily vegetated with lowland, windward, non-native forest except for cleared portions around the existing landfill. During a Flora and Fauna survey conducted by Robert Hobdy in November 2006, for the EA for the land acquisition to the landfill, the terrain of the property was placed into three categories: (1) forest; (2) landscape; and (3) landfill (Munekiyo & Hiraga, Inc., October 2007).

In the forest area, which surrounds the Makai Hāna Landfill, the undeveloped portions of this property were described as disturbed, wet and a lowland forest dominated by non-native plant species, such as common ironwood, gunpowder tree, African tulip-tree, and star flower. There were a few native species scattered in the forest, such as hala, naupaka kahakai, kaunaoa pehu, and kakalaioa.

The active Hāna Landfill area has received awards for its attractive landscape. Ornamental plants have been placed around the entrance, the load talley office, and along the road.

The active Hāna Landfill area is a cleared and grubbed and largely barren ground and covered trash. The covered areas including the Makai Hāna Landfill and the perimeters have an abundance of common weeds that have taken over the previously disturbed ground. The only native plant found here was the common uhaloa.

A total of 141 plant species were recorded during the survey. Of these, none were endemic only to Hawai‘i, while 10 species were indigenous to Hawai‘i and other Pacific Islands. These species were okupukupu, kakalaioa, kaunaoa pehu, moa, hala, kou, koali awahia, naupaka kahakai, and uhaloa.

**b. Potential Impacts and Mitigation Measures**

The flora and fauna survey reported that the vegetation throughout the project area is comprised mainly of non-native species with a few common native species scattered about. No Federally listed threatened or endangered species (USFWS, 1999) were found on the property, nor were any found that are candidates for such status. No special habitats were found. There is little botanical concern with regard to the property (Munekiyo & Hiraga, Inc., October 2007).

The Makai Hāna Landfill area is described as wet and a lowland forest dominated by non-native species. During the clean-up operation, all vegetation along with the accumulated municipal solid waste will be removed and relocated to the active Hāna Landfill site and the green waste compost area, as applicable. The exposed soil will be planted with a mixture of appropriate grass species to stabilize the soil from wind blown erosion.

The proposed action is not anticipated to present significant adverse impacts on flora, fauna, and avifauna.

**7. Archaeological Resources**

**a. Existing Conditions**

An archaeological assessment of the existing and future active expanded portions of the Hāna Landfill site and adjacent State lands was carried out in September 2003. See **Appendix “C”**. The field assessment found no significant material culture remains during the inspection of the project area. In addition, no significant above-ground structural remains were noted in the adjacent area. Given the very rocky surface of the surrounding a‘a terrain, it does not appear likely that the immediate study area was substantially utilized by precontact Hawaiians or during the post-contact sugar and ranch eras. The level of previous disturbance from the

grading and filling operations has likely eliminated any evidence of former land use on the project area.

For the Makai Hāna Landfill clean-up and closure project, an archaeological assessment with subsurface testing was carried out in June 2015, around the perimeter of the limits of waste to assess potential impacts of the proposed action on historic properties. In response to comments dated October 8, 2015 from the State Historic Preservation Division (SHPD), Maui Office, a revised archaeological assessment was submitted to SHPD. See **Appendix “C-1”**. By letter dated December 24, 2015, SHPD determined that the revised assessment met the requirements specified in Hawai‘i Administrative Rules (HAR) Subsection 13-275. See **Appendix “C-2”**.

A pedestrian survey and fourteen (14) backhoe test excavations were utilized to assess subsurface conditions along the boundaries of the Makai Landfill site. Shallow fill deposits were found to overlay *a’a* lava clinker in sampled portions of the project area. There were no significant material culture remains located during the surface inspection and subsurface testing of accessible portions of the project area. The general area in the vicinity of the margin of the Makai Hāna Landfill appears to have been previously impacted by bulldozing activities.

**b. Potential Impacts and Mitigation Measures**

No significant cultural remains were identified by the archaeological assessment that was completed in 2003 on the landfill site. Based on the findings of the 2003 archaeological assessment, no further work or mitigation was recommended. In coordination with the State Historic Preservation Division (SHPD) an archaeological assessment with subsurface testing was prepared by Xamanek Researches, LLC in 2015. The 2015 archaeological assessment report did not identify any historic or cultural resources along the boundary of the Makai Hāna Landfill. However, the report noted that given the near coastal location of the proposed clean-up and closure of the Makai Hāna Landfill site, as well as the fact that it was not possible to test within much of the physical footprint of the Makai Hāna Landfill, archaeological monitoring is recommended during initial earthmoving activities around the boundaries of the old landfill, and periodically when the operations are near the original land surface elevation. Given the extended time necessary for the

proposed project, the archaeological assessment report further recommended that the project specific monitoring plan be developed with the input of the State Historic Preservation Division (SHPD) staff archaeologist for the Maui office. Refer to **Appendix “C-1”**. By letter dated December 24, 2015, SHPD accepted the revised archaeological assessment report and concurred with the recommendation for archaeological monitoring. An Archaeological Monitoring Plan will be submitted to SHPD. Refer to **Appendix “C-2”**.

Upon removal of waste from the Makai Hāna Landfill, the area will be used as a buffer zone and will not be further altered.

Given the foregoing, the proposed action is not anticipated to present significant adverse impacts on archaeological resources.

## **8. Cultural Impact Assessment**

### **a. Cultural Impact Assessment**

#### **(1) Historical Context**

##### **Pre-Contact**

The subject property is located within the Kawaipapa ahupua‘a, part of the larger moku or district of Hāna, which extends from Ko‘olau to Kaupō. The Hāna moku was noted for bountiful production of upland taro, bananas, yams, wakue, olana and awa (Handy, 1940). The Hāna district is also distinguished by its rich cultural history. Hāna’s closeness to the island of Hawai‘i permitted frequent interaction between the two islands in times of war and peace. In pre-contact times, Hāna was a desirable district to reside in due to its abundant agricultural resources and numerous coastal fishponds. The Hāna district was also noted for its fine surfing, excellent supply of natural woods (used for crafting scaffolds and ladders) and having the best round, smooth stones used in slingshots.

Hāna was also called “a land beloved by chiefs because of the fortress of Ka‘uiki and the ease of living in that place”. Ka‘uiki, a puu located on the southern edge of Hāna Bay, had a summit at a height of approximately 400 feet and was covered with a natural

vegetative mat that provided the chiefs and chiefesses with a comfortable sleeping environment. Fishponds immediately below Ka'uiki provided unlimited fish supplies, while large quantities of awa root delighted the chiefs. Piilani, a high Maui Chief, was said to have resided at Ka'uiki.

Other notable figures of old Hawai'i were known to have lived at Ka'uiki, including Ka'ahumanu, who was born and raised in the Kawaipapa ahupua'a. According to Handy, Lonopiilani and Kihapiilani (sons of Piilani) also resided at Ka'uiki. Lonopiilani was the older brother of Kihapiilani. Kihapiilani stayed at Ka'uiki with Lonopiilani until he apparently grew tired of his brother's continued insults. With the aid of a fleet of canoes sent by Umi, a high Chief from the island of Hawai'i, Kihapiilani defeated Lonopiilani and later extended his rule throughout the island of Maui.

As chief of Maui, Kihapiilani built the "Long Road", or Alaloa around the island of Maui, around 1516 (Handy, 1940). The trail was paved with flat hard beach stones, bordered in the open country by large boulders sunk into the ground. Maui alii organized human chains to pass shoreline stones from the coast to the trail areas. The trail was useful during times of war, with runners carrying messages along the trails for the alii. The trail was also used during the Makahiki by tax collectors, the priests who released land from the kapu after the hookupu or taxes had been received and the bearers of the symbol of Lono. (Handy, Handy and Pukui, 1972). Eventually, the Maui trail would come to be known as the King's Trail, the only island trail in Hawai'i to traverse the whole island.

## **(2) Local Resident Interview**

As part of the cultural impact assessment, an interview was conducted with Ms. Harolen Kaiwi of Hāna on July 15, 2015. The following is a summary of this interview:

Ms. Harolen Kaiwi is of Hawaiian descent and was born in 1961 in Hāna and is a life-long resident of Hāna. She is the daughter of Harold and Helen Nakaoka. Her family

connection to the Hāna region is from Ke‘anae and lower Nāhiku. She has two (2) brothers who live in Kahului and three (3) sisters who are also Hāna residents. She has a daughter and three (3) sons who are residents of Hāna. Ms. Kaiwi worked for the Hotel Hāna Maui for 30 years before moving to the Hāna Ranch Grocery Store five (5) years ago to become one of the store’s managers.

Ms. Kaiwi is the President of the Hāna Cultural Center and Museum, Vice President of the non-profit organization Ohana Makamae, and a member of the American Red Cross.

Her involvement with the Hāna Cultural Center and Museum is due to her desire to learn and preserve the Hawaiian culture, as well as, her desire to educate her children and others in the culture. Ohana Makamae is Hāna’s family resource center that provides culturally based substance abuse treatment and family support.

Ms. Kaiwi recalls when she was growing up the old Hāna Landfill was referred to by some members of the community as “Woolworths”. Residents would carefully set aside usable items at the landfill for other Hāna residents to pick-up and reuse. The landfill was like shopping at Woolworths. This practice ended before 1979 when she graduated from high school.

Waikoloa Road, besides being the access to the Hāna Landfill, is also used for access to the shoreline. Residents continue to use the shoreline area for fishing and gathering of food, such as opihi. She is aware that the Pi‘ilani Trail is located along the shoreline and that there are numerous ways to get to the shoreline. Ms. Kaiwi noted that the operations at the Hāna Landfill do not limit access to the shoreline.

Ms. Kaiwi also noted that nearby is an existing fishpond in the Ke‘anini Point area that crosses the Kalalau property.

Because access to the fishpond is through private property she does not use the fishpond.

Ms. Kaiwi felt the existing landfill is beautiful and the workers do a good job. She did not express any concerns regarding the proposed closure of the Makai Hāna Landfill. She also did not note any ongoing cultural practices or issues associated within the landfill area. See **Appendix “D”**.

**b. Cultural Impact Analysis**

The Hāna district is noted as being significant from a historical and cultural perspective. However, lands in the vicinity of the project site have been significantly altered through landfill use. In addition, archaeological field work, historical research and local resident interview indicate there are no historic properties or significant cultural or religious activities which will be adversely impacted by the proposed action.

**9. Air and Noise Quality**

**a. Existing Conditions**

The Hāna Landfill is located in a rural area, absent of large developments and intensive air source contaminants. The Hāna region is consistently exposed to trade winds, which contributes to excellent air quality in the region. Ambient noise levels are also influenced by the region’s rural atmosphere.

In the vicinity of the Hāna Landfill, air quality is impacted by dust generated from the ongoing deposits of solid waste, as well as odors generated by decomposing refuse material. Refuse deposits are covered with earthen material in an effort to mitigate the effect of decomposing odors. Ambient noise in the area is largely attributed to the daily operations associated with landfill activities, which includes use of trucks and bulldozers for spreading and covering waste material. Four (4) landfill gas monitoring probes are installed around the perimeter of the landfill to test for potential methane migration.

The Makai Hāna Landfill area has a vegetative cover and does not generate wind blown dust.



**b. Potential Impacts and Mitigation Measures**

Short-term construction-related impacts associated with the grading and removal of soil cover and accumulated solid waste at the Makai Hāna Landfill may cause dust and other air pollutant emissions. These impacts will be limited by the implementation of a phasing plan which will involve excavation of small increments of the Makai Hāna Landfill over a three-year period, with each area being closed and revegetated as the excavation is completed. Appropriate BMPs will be utilized during grading activities in order to mitigate the potential for adverse impacts to air quality and ambient noise levels. Given the location and use of BMPs, temporary effects associated with the grading and solid waste removal are not anticipated to present significant adverse impacts. Exposed surfaces will be re-planted as each increment of excavation and grading is completed in order to minimize wind blown dust. The dust generated by soil cover over the removed municipal solid waste and noise generated by machinery at the active landfill are not anticipated to adversely impact surrounding properties, since the landfill site is located approximately 0.25 mile from the nearest residence.

**10. Use of Chemicals and Fertilizers**

**a. Existing Conditions**

Currently, no herbicides or pesticides are used at the landfill site.

**b. Potential Impacts and Mitigation Measures**

On a short term basis, herbicides and pesticides may be applied by a licensed operator to establish the vegetative ground cover to excavated surfaces at the Makai Hāna Landfill. Once vegetative cover has been established herbicides and pesticides will not be applied to vegetated areas. As such, long-term significant adverse effects to surface, underground, and marine resources from these applications are not anticipated.

## **B. SOCIO-ECONOMIC ENVIRONMENT**

### **1. Population and Economy**

#### **a. Existing Conditions**

The Hāna region includes Hāna Town and the neighboring coastal communities of Ke‘anae, Kīpahulu, and Kaupō. Situated 55 miles east of the County seat in Wailuku, Hāna Town serves as the major population center of the Hāna area. The economy in Hāna is primarily based on diversified agriculture, the visitor industry, government services and subsistence activities. Diversified agricultural activities include ranching, as well as the cultivation of taro and tropical fruits, flowers, and foliage. Businesses, government services and visitor accommodations are centered in Hāna Town.

In 2000, the population of Hāna was 1,867, while the population for the year 2010 was 2,290 (U.S. Census, 2010). By the year 2020, the baseline population of Hāna is projected to increase to 2,743 (Maui County Planning Department, December 2012).

In 1990, there were approximately 680 jobs in the Hāna region, while in the year 2000, there were approximately 840. By the year 2020, the baseline number of jobs in Hāna is anticipated to be approximately 940 (County of Maui, June 2006).

#### **b. Potential Impacts and Mitigation Measures**

The proposed project involves the clean-up of an area of former municipal solid waste and placing the material in the current active landfill. The project will also include grading activities to remove soil associated with the removal of the waste. Implementation of the project will require commitment of financial resources over an approximate three (3) year period. Short-term beneficial impacts to the economy may result from the clean-up operations through labor and supply contract expenditures. No long-term adverse impacts to the region’s economy and population are anticipated as a result of the proposed project.

## **2. Traditional Beach and Mountain Access**

### **a. Existing Conditions**

The Pi'ilani Trail or King's Trail is located to the east of the project site along the Hāna coastline. Access to the shoreline areas is provided by this historic trail. The Pi'ilani Trail is not located within the existing boundary of the EO or the Makai Hāna Landfill. Refer to **Figure 1**.

### **b. Potential Impacts and Mitigation Measures**

Access to traditional beach and mountain trails, such as the Pi'ilani Trail, are not anticipated to be adversely impacted by the proposed clean-up and closure of the Makai Hāna Landfill activities.

## **C. PUBLIC SERVICES**

### **1. Police and Fire Protection**

#### **a. Existing Conditions**

Headquartered in Wailuku, police protection service for the island of Maui is provided by the Maui Police Department, which includes Wailuku, Lahaina and Hāna patrol districts. The Hāna patrol division covers the area from Kailua to Kaupō, and is based out of the Hāna Police Station, located near the intersection of Hāna Highway and Uakea Road, southeast of the project site.

Fire prevention, suppression, and protection services are provided for the County of Maui by the Department of Fire and Public Safety. The department maintains a fire station in Hāna which is located on the same property as the Police Station.

#### **b. Potential Impacts and Mitigation Measures**

The proposed project is not anticipated to adversely impact the existing level of police and fire protection services in the Hāna area. The proposed project will not extend the service area for police and fire protection.

2. **Medical Facilities**

a. **Existing Conditions**

Maui Memorial Medical Center is the only major medical facility on the island. Acute, general, and emergency care services are provided by the approximately 213-bed facility. In Hāna, the Hāna Health Clinic is located 0.5 mile southwest of the project site, providing general health care, dental services, and 24-hour acute care services.

b. **Potential Impacts and Mitigation Measures**

The proposed project is not anticipated to adversely impact the existing level of medical services currently provided by the Hāna Health Clinic or Maui Memorial Medical Center.

3. **Schools**

a. **Existing Conditions**

The State of Hawai‘i, Department of Education operates one (1) public school in the Hāna region, Hāna High and Elementary School. Hāna High and Elementary School, located approximately one (1) mile to the northwest of the project site has a total enrollment of 341 students for the 2014-2015 school year (State Department of Education, June, 2015).

b. **Potential Impacts and Mitigation Measures**

The proposed project is not a population generator and is not anticipated to adversely impact the existing schools in the East Maui region.

4. **Solid Waste**

a. **Existing Conditions**

Solid waste in the vicinity of the project is collected by the County of Maui, Department of Public Works, Highways Division, and transported to the Hāna Landfill.

Single-family solid waste collection service is provided by the County of Maui on a once-a-week basis. The Hāna Landfill also accepts commercial waste generated by the region’s limited commercial activity, including

The Travaasa Hotel Hana and The Hana Ranch. The municipal solid waste area receives approximately three (3) to four (4) tons of waste per day. The landfill also has receiving areas for biodegradable materials and recycling. Two (2) or three (3) events are held per year to collect scrap metal at the recycling center.

**b. Potential Impacts and Mitigation Measures**

The proposed action involves the clean-up and closure of the Makai Hāna Landfill site and relocation of the removed waste to the active Hāna Landfill area where it can be disposed in compliance with current State and Federal regulations. The active landfill has an estimated capacity of 290,400 cubic yards (c.y.) and is projected to be able to accommodate waste disposal to the year 2050 (R.M. Towill Corporation, July 2002). The estimated volume of the Makai Hāna Landfill is approximately 89,200 c.y. of municipal solid waste minus approximately 4,500 c.y. (2,500 tons) of metals estimated to be recycled. The approximately 10,300 c.y. of soil excavated will be used for daily cover of the municipal solid waste to prevent wind-blown litter and mitigate odor. No adverse impacts to the County's solid waste disposal capacity are anticipated as a result of project implementation.

**5. Recreational Resources**

**a. Existing Conditions**

Major recreational resources in the Hāna region include the County-maintained Hāna Ball Park, Hāna Bay Beach Park in Hāna Town and Koki Beach Park near Hāmoa. In addition, the State of Hawai'i maintains the Wai'anapanapa State Park approximately 1.5 miles north of the subject property. The National Park Service maintains the 'Ohe'o Gulch Recreational area, part of the larger Haleakalā National Park.

Portions of the Pi'ilani Trail, also known as the King's Highway, traverse the shoreline area fronting the project site to the east. The Pi'ilani Trail is not within the existing boundaries of the landfill site.

**b. Potential Impacts and Mitigation Measures**

The proposed project is not anticipated to adversely impact recreational resources available to the residents of East Maui. Further, the Pi'ilani

Trail, east of the project site, will not be impacted as a result of project implementation.

## **D. INFRASTRUCTURE**

### **1. Roadways**

#### **a. Existing Conditions**

Hāna Highway is a two-way, two-lane State Highway, serving as the main transportation arterial with rural collector road status for the Hāna region. The Hāna Highway is noted for its scenic beauty and historic nature, which includes 59 bridges and 8 culverts, all of which are over 50 years old.

Access to the Hāna Landfill is provided via Waikoloa Road, a paved roadway over compacted subgrade.

#### **b. Potential Impacts and Mitigation Measures**

Clean-up equipment transported to the landfill parcel will be utilized for grading and hauling activities associated with the clean-up and relocation of the municipal solid waste to the active landfill area. Once the equipment is onsite, all activity associated with the removal will be confined to the landfill parcel. Scrap metal that can be recycled will be hauled by truck to a licensed recycling facility in Kahului. These trips will be relatively infrequent and are not anticipated to adversely impact traffic conditions along the highway. No adverse impacts to existing roadways in the vicinity of the project site are anticipated as a result of project implementation.

### **2. Water**

#### **a. Existing Conditions**

The Hāna region is serviced in part by the County of Maui, Department of Water Supply, which includes two deep wells, one located at Hāmoa and one at Wākiu. These wells service a series of pipelines which in turn service the area of Hāna Town. There is no County water servicing the subject property. A 2-inch waterline runs along the southern portion of Waikoloa Road, along the northern rim of Hāna Bay. The 2-inch line

terminates at a point approximately 750 feet south of the subject property (Munekiyo & Hiraga, Inc., October 2007).

Potable water is currently hauled to the Hāna Landfill property by a water truck which is used for non-drinking purposes, such as dust control. Drinking water is provided by a vendor.

**b. Potential Impacts and Mitigation Measures**

The proposed clean-up and closure action does not involve modifications or improvements to the existing water infrastructure system in the Hāna area. Project implementation is not anticipated to adversely impact the County of Maui's water service capacity in the vicinity of the project site. Ground water monitoring wells are located downstream of the active landfill area to assess potential adverse impacts of existing landfill activities on ground water quality. Detection monitoring continues on a quarterly schedule. Reports are submitted to DOH for review with any action required to maintain water quality carried out pursuant to DOH requirements.

**3. Wastewater**

**a. Existing Conditions**

There are no County wastewater collection or treatment facilities currently servicing the Hāna region. Individual properties are generally serviced by individual wastewater systems (IWS), including septic tanks, cesspools and packaged treatment plants. An individual toilet is located onsite for use by landfill staff, serviced by an IWS. Water for the toilet use is trucked to the site and stored in a 250-gallon tank.

**b. Potential Impacts and Mitigation Measures**

The proposed project is not anticipated to adversely impact individual wastewater services in the East Maui region. No improvements or expansion to wastewater capacity is anticipated.

#### 4. **Drainage System**

##### a. **Existing Conditions**

Storm water drainage in the vicinity of the project site generally follows natural contours, sheet flowing into streams and gullies and discharging into coastal waters. Within the limits of the Makai Hāna Landfill, extensive grass and landscaping covers the area. The vegetative cover and porous cinder soils generally provide the necessary capacity to absorb runoff in times of heavy rains.

The removal of the municipal solid waste in the Makai Hāna Landfill will involve the removal of vegetative cover and soil to expose refuse and excavation of the refuse until clean native soil is reached. The excavation will be done in small increments of approximately two (2) acres per year over a period of three (3) years. Temporary drainage control measures such as silt fences and berms to channel stormwater runoff from exposed surfaces to temporary retention basins will be carried out. After refuse has been removed, soil samples will be collected from the soil subgrade and tested to ensure that the remaining soil subgrade is in compliance with DOH Environmental Action Levels (EALs). When the subgrade soil tests are in compliance with EALs the area will be graded to achieve a relatively uniform slope to meet natural drainage channels. Erosion controls and revegetation of slopes will be carried out to facilitate natural drainage of the area. Refer to **Figure 4**.

The active area of the landfill operates above the surrounding grade. As such, offsite runoff during storm conditions from the Makai Hāna Landfill area to the active area is prevented by natural contours. Under current conditions, the active area of the landfill is graded with a soil cover in a series of terraces, sloped outward to control runoff resulting from direct rainfall. The terraces are sloped to direct runoff downslope into a stormwater detention basin.

##### b. **Potential Impacts and Mitigation Measures**

The proposed project is not anticipated to result in an increased level of onsite drainage. The project will include grading activities to remove the municipal solid waste and the graded areas will be contoured to match natural contours and then revegetated. The existing detention basin at the



active landfill is lined with a geo-membrane to prevent contamination of the underlying soils and groundwater. No adverse impacts to downstream environments or to natural drainage patterns surrounding the project site are anticipated as a result of project implementation.

**5. Electrical and Telephone Systems**

**a. Existing Conditions**

Electrical and telephone services for the Hāna region of Maui are provided by Maui Electric Company, Ltd. and Hawaiian Telcom, respectively. These services do not extend to the Hāna Landfill. Electrical service for the office is provided by photovoltaic panels with a gasoline fueled generator for backup. Communication between landfill personnel is by radio and mobile phones are used to communicate outside of the landfill.

**b. Potential Impacts and Mitigation Measures**

The proposed project is not anticipated to adversely impact the existing level of electrical and telephone services in the East Maui region.

**6. Cumulative and Secondary Impacts**

A cumulative impact is defined as an impact to the environment which results from the incremental impact of an action when added to other past, present, and reasonable foreseeable future actions regardless of what agency or person undertakes such other actions. Actions, particularly those that involve the construction of public facilities or infrastructure, may stimulate secondary impacts, such as increases in population and growth, or increases in the demand for public services. In this regard, it should be noted the proposed action is limited in scope to the clean-up and closure of the Makai Hāna Landfill and relocation of the waste to a regulated landfill facility or metal recycling facility. The proposed project will result in compliance with the Clean Water Act and Federal, County and State regulations. Upon removal of the waste, the soils and subsoil of the Makai Hāna Landfill area will be tested for DOH EALs. All soil or subgrade will be removed until the insitu soils or subgrade are within the limits of DOH EALs. There will be no expansion to the existing landfill capacity, therefore, cumulative and secondary impacts resulting from the proposed action are not anticipated.

### **III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS**

### **III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS**

#### **A. STATE LAND USE DISTRICT**

Chapter 205, Hawai‘i Revised Statutes (HRS), relating to the Land Use Commission, establishes the four (4) major land use districts in which all lands in the State are placed. These districts are designated “Urban”, “Rural”, “Agricultural” and “Conservation”. The active Hāna Landfill facility (Parcel 12) is located within the “Agricultural” District while the Makai Hāna Landfill is in the “Conservation” District. See **Figure 9**. Based on the Department of Land and Natural Resources (DLNR) Conservation subzone map, the portion of Parcel 12 located within the “Conservation” District falls within the Limited and General Subzones. See **Figure 10**. DLNR, Office of Conservation and Coastal Lands (OCCL) has determined the Makai Hāna Landfill is in the Limited Subzone. Pursuant to Chapter 5 Conservation District, Sections 13-5-23(a) and (b) 13-5-25(a), Hawai‘i Administrative Rules (HAR), respectively, the County of Maui, Department of Environmental Management’s (DEM) proposed clean-up and closure of the existing Makai Hāna Landfill will require a Conservation District Use Permit (CDUP).

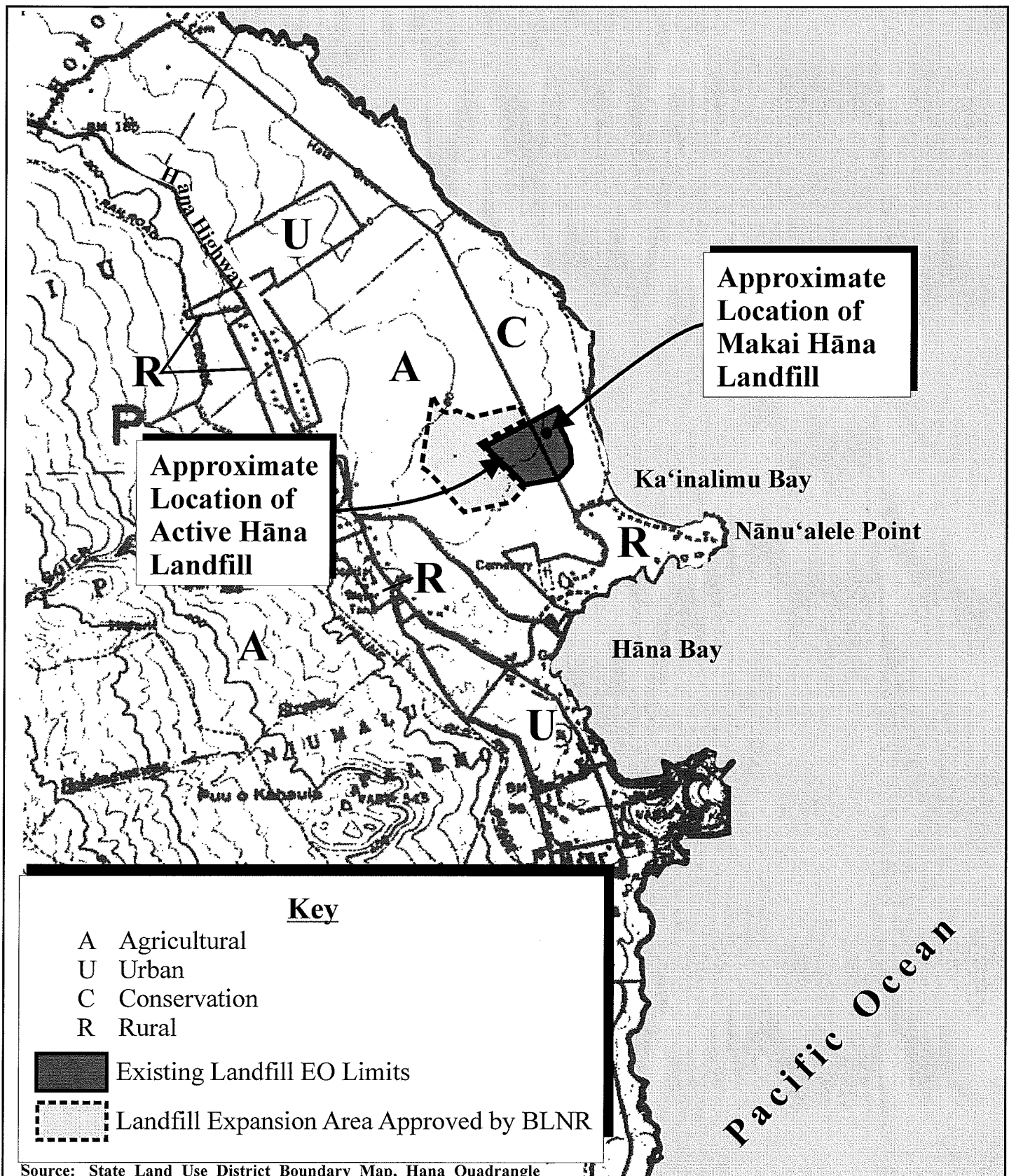
The Makai Hāna Landfill meets the following criteria for a CDUP:

**(1) The proposed land use is consistent with the purpose of the Conservation District;**

The purpose of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

The Hāna Makai Landfill was established in the Conservation District prior to the State Land Use law and discontinued around 2003. The removal of the waste outside of the Conservation District to the active landfill and closure will meet the purpose of the Conservation District and bring the landfill operations into compliance with Federal and State Department of Health (DOH) regulations.

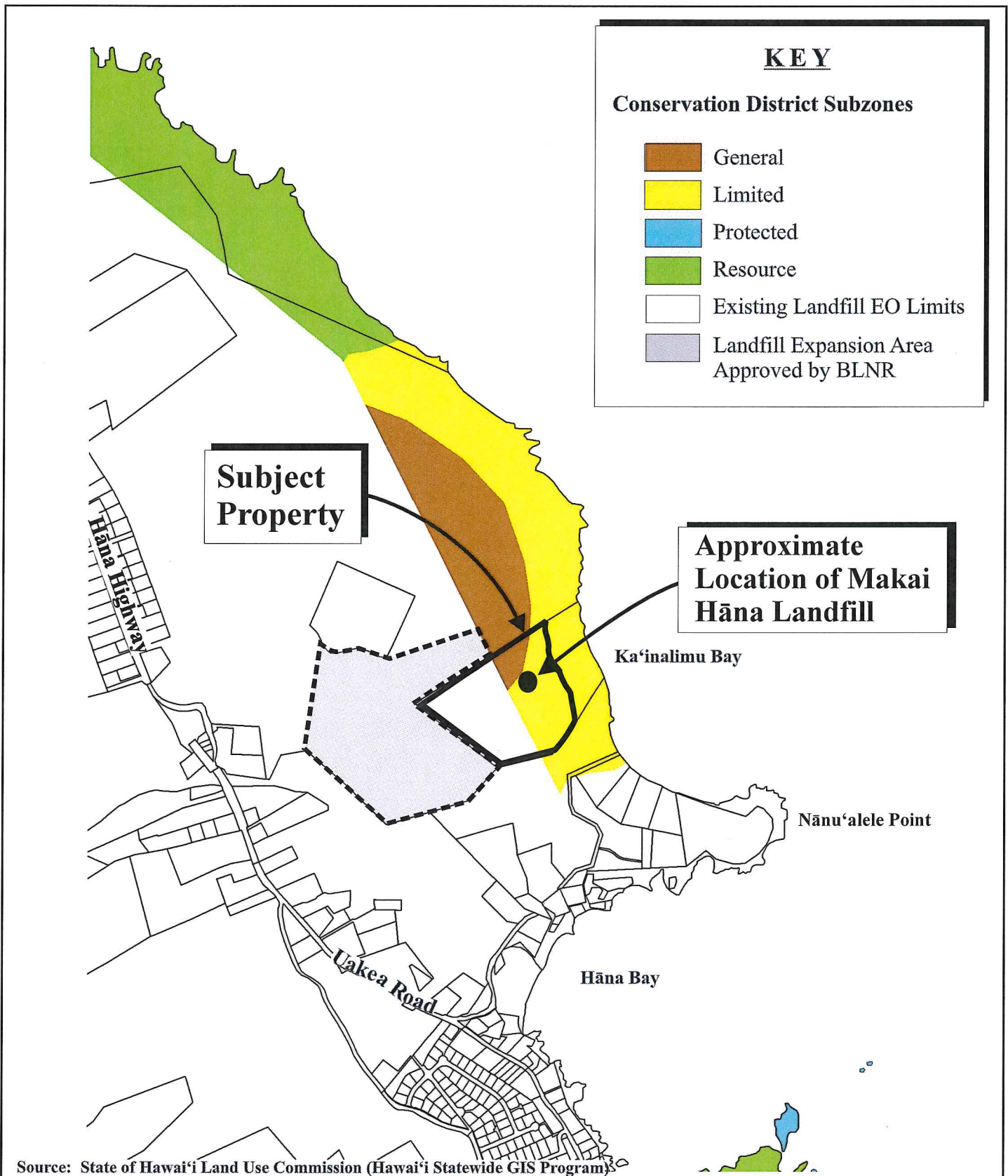
The proposed closure of the Makai Hāna Landfill is consistent with the purpose of the Conservation District.



**Figure 9** Proposed Makai Hāna Landfill  
Clean-Up and Closure  
State Land Use District Boundary Map

0 500 1000 2000 Feet





**Figure 10 Proposed Makai Hāna Landfill  
Clean-Up and Closure  
Conservation District Subzone Map**



Prepared for: County of Maui, Department of  
Environmental Management

**MUNEKIYO HIRAGA**

**(2) The proposed use is consistent with the objectives of the subzone of the land on which the land use will occur;**

In the limited subzone, a site approval from the DLNR is required for the demolition removal or minor alteration of existing structures, facilities, land, and equipment. The removal of the waste material from the Makai Hāna Landfill with a site approval is permitted in the limited subzone.

In the limited subzone a CDUP is required for the proposed landscaping (including clearing, grubbing, grading, and tree removal), including chemical and mechanical control methods, in accordance with State and Federal laws and regulations, in an area of or more than 10,000 square feet. Any replanting shall be appropriate to the site location and shall give preference to plant materials that are endemic or indigenous to Hawai'i. The introduction of invasive plant species is prohibited. The closure with a CDUP is permitted in the limited subzone.

The proposed use is consistent with the objectives of the subzones of the land on which the proposed action will occur.

**(3) The proposed land use complies with provisions and guidelines contained in Chapter 205A, HRS, entitled "Coastal Zone Management", where applicable;**

The Makai Hāna Landfill is located in the Special Management Area (SMA) and an appropriate SMA Permit will be required prior to initiation of the removal and closure. Sections F and G of this Chapter address the provisions and guidelines of Chapter 205A, HRS and the SMA Rules of the Maui Planning Commission, respectively.

**(4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region;**

The removal of waste and closure of the Makai Hāna Landfill is not anticipated to cause substantial adverse impact to existing natural resources within the surrounding area, community, or region. It will be a benefit to relocate the waste to the active landfill site to be compliant with Federal and State regulations.



- (5) **The proposed land use, including buildings, structures, and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels;**

The project is limited to the removal of waste to the adjacent active landfill site and closure of the Makai Hāna Landfill, and is compatible with the locality and surrounding areas.

- (6) **The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable;**

Once closure of the Makai Hāna Landfill is completed, the area will be landscaped with grass. The site will blend into the natural beauty and open space characteristics of the Conservation District.

- (7) **Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District; and**

The removal and closure of the Makai Hāna Landfill will not involve the subdivision of land or increase the intensity of uses in the Conservation District.

- (8) **The proposed land use will not be materially detrimental to the public health, safety, and welfare.**

The removal and closure of the Makai Hāna Landfill will not be materially detrimental to the public health, safety, and welfare. It will be compliant with current Federal and State regulations.

In summary, the clean-up of the Makai Hāna Landfill in the Limited Subzone will bring the existing landfill operations into compliance with Federal and DOH regulations and restore the area to its previous natural beauty and open space character.

The portion of the existing landfill located within the “Agricultural” District includes the active Hāna Landfill area including the recycling area and green waste area.

#### **State Land Use Commission Special Use Permit**

In reference to the existing active Hāna Landfill situated in the State Land Use Agricultural District, it is noted that landfills are not an outright permitted use in the State and County Agricultural Districts. As such, the existing active portion of the landfill within the State Agricultural District received an approval by the State Land Use

Commission for a Special Use Permit (SUP). This permit (SUP 1 2007/0002) is valid until 2018. The existing landfill operations also received a County Special Use Permit (CUP 2007/0001) which is also valid until 2018.

## **B. HAWAI'I STATE PLAN**

Chapter 226, HRS, also known as the Hawai'i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. Examples of State objectives and policies relevant to the Makai Hāna Landfill are discussed below:

### **Section 226-14 Objectives and policies for facility systems – in general.**

Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunications systems that support statewide social, economic, and physical objectives.

To achieve the general facility systems objectives, it shall be the policy of this State to:

*Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.*

### **Section 226-15 Objectives and policies for facility systems – solid and liquid wastes.**

Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objective:

*Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.*

## **C. MAUI COUNTY GENERAL PLAN**

As indicated by the Maui County Charter, the purpose of the general plan shall be to:

*... indicate desired population and physical development patterns for each island and region within the County; shall address the unique problems and needs of each island and region; shall explain opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing*

*actions to be pursued with respect to population density; land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.*

Chapter 2.80B of the Maui County Code, relating to the General Plan and Community Plans, implements the foregoing Charter provision through enabling legislation which calls for a Countywide Policy Plan and a Maui Island Plan. The Countywide Policy Plan was adopted as Ordinance No. 3732 on March 24, 2010, while the Maui Island Plan, which delineates areas for future urban and rural growth as part of a Directed Growth Strategy, was adopted as Ordinance No. 4004 on December 28, 2012.

The following sections identify pertinent objectives, policies, implementing actions and related provisions set forth in the Countywide Policy Plan and the Maui Island Plan. It is recognized that both documents are comprehensive in nature and address a number of functional planning areas which apply to all programs, plans, and projects. However, for purposes of addressing General Plan compliance requirements, policy considerations which are deemed most relevant in terms of compatibility and consistency are addressed in this report section:

#### **1. Countywide Policy Plan**

With regard to the Countywide Policy Plan, Section 2.80B.030 of the Maui County Code states the following.

*The Countywide policy plan shall provide broad policies and objectives which portray the desired direction of the County's future. The Countywide policy plan shall include:*

- 1. A vision for the County;*
- 2. A statement of core themes or principles for the County;  
and*
- 3. A list of Countywide objectives and policies for population, land use, the environment, the economy, and housing.*

Core principles set forth in the Countywide Policy Plan are listed as follows:

- 1. Excellence in the stewardship of the natural environment and cultural resources;*
- 2. Compassion for and understanding of others;*
- 3. Respect for diversity;*

4. *Engagement and empowerment of Maui County residents;*
5. *Honor for all cultural traditions and histories;*
6. *Consideration of the contributions of past generations as well as the needs of future generations;*
7. *Commitment to self-sufficiency;*
8. *Wisdom and balance in decision making;*
9. *Thoughtful, island appropriate innovation; and*
10. *Nurturance of the health and well-being of our families and our communities.*

Congruent with these core principles, the Countywide Policy Plan identifies goals objectives, policies and implementing actions for pertinent functional planning categories, which are identified as follows:

1. *Natural environment*
2. *Local cultures and traditions*
3. *Education*
4. *Social and healthcare services*
5. *Housing opportunities for residents*
6. *Local economy*
7. *Parks and public facilities*
8. *Transportation options*
9. *Physical infrastructure*
10. *Sustainable land use and growth management*
11. *Good governance*

With respect to the proposed Makai Hāna Landfill clean-up and closure, the following goals, objectives, policies, and implementing actions are illustrative of the compliance with the Countywide Policy Plan:

## **IMPROVE PHYSICAL INFRASTRUCTURE**

### **Goal:**

*Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.*

### **Objective:**

*Improve waste-disposal practices and systems to be efficient, safe, and as environmentally sound as possible.*

### **Policies:**

- *Provide sustainable waste-disposal systems and comprehensive, convenient recycling programs to reduce the flow of waste into landfills.*
- *Support innovative and alternative practices in recycling solid waste and wastewater and disposing of hazardous waste.*

### **Objective:**

*Improve the planning and management of infrastructure systems.*

### **Policies:**

- *Provide reliable and sufficient level of funding to enhance and maintain infrastructure system.*
- *Maintain inventories of infrastructure capacity, and project future infrastructure needs.*

## **2. Maui Island Plan**

The Maui Island Plan (MIP) is applicable to the island of Maui only, providing more specific policy-based strategies for population, land use, transportation, public and community facilities, water and sewage systems, visitor destinations, urban design, and other matters related to future growth.

As provided by Chapter 2.80B, the MIP shall include the following components:

1. *An island-wide land use strategy, including a managed and directed growth plan*

2. *A water element assessing supply, demand and quality parameters*
3. *A nearshore ecosystem element assessing nearshore waters and requirements for preservation and restoration*
4. *An implementation program which addresses the County's 20-year capital improvement requirements, financial program for implementation, and action implementation schedule*
5. *Milestone indicators designed to measure implementation progress of the MIP*

It is noted that the Ordinance No. 4004 does not address the component relating to the implementation program. Chapter 2.80B of the Maui County Code, relating to the General Plan, was amended by Ordinance No. 3979, effective October 5, 2012, to provide that the implementation program component be adopted no later than one (1) year following the effective date of Ordinance No. 4004. In December 2013 and March 2014, the Council approved time extensions for adopting the implementation program component of the MIP. The implementation program component was adopted by Ordinance No. 4126 on May 19, 2014.

The MIP addresses a number of planning categories with detailed policy analysis and recommendations which are framed in terms of goals, objectives, policies and implementing actions. These planning categories address the following areas:

1. *Population*
2. *Heritage Resources*
3. *Natural Hazards*
4. *Economic Development*
5. *Housing*
6. *Infrastructure and Public Facilities*
7. *Land Use*

Additionally, an essential element of the MIP is its directed growth plan which provides a management framework for future growth in a manner that is fiscally, environmentally, and culturally prudent. Among the directed growth

management tools developed through the MIP process are maps delineating urban growth boundaries (UGB), small town boundaries (STB), and rural growth boundaries (RGB). The respective boundaries identify areas appropriate for future growth and their corresponding intent with respect to development character.

The Hāna Landfill is located within the Hāna Small Town Boundary. In this regard, it is consistent with the directed growth strategy defined via growth maps adopted in the MIP.

In addition, the proposed Makai Hāna Landfill clean-up and closure project has been reviewed with respect to pertinent goals, objectives, policies, and implementing actions of the MIP. A summary of these policy statements are provided below:

#### **INFRASTRUCTURE AND PUBLIC FACILITIES – SOLID WASTE**

##### **Goal:**

- 6.1                      *Maui will have implemented the ISWMP thereby diverting waste from its landfills, extending their capacities.*

##### **Objective:**

- 6.1.1                      *Meet our future solid waste needs with a more comprehensive planning and management strategy.*

##### **Policy:**

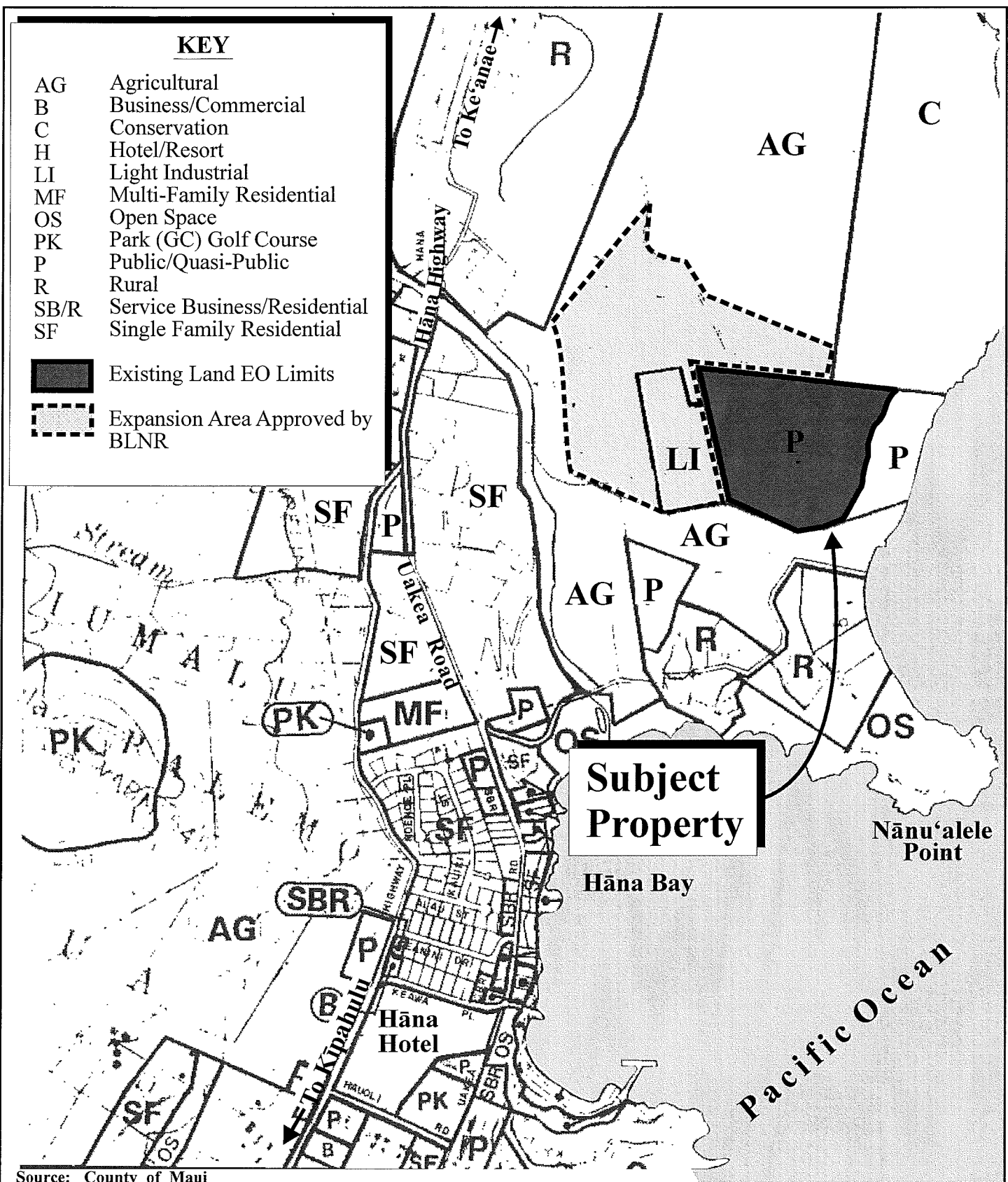
- 6.1.1.d                      *Minimize future active, unlined landfill cells to the extent feasible.*

In summary, the proposed Makai Hāna Landfill clean-up and closure project is consistent with the above-noted themes and principles of the Countywide Policy Plan and the MIP.

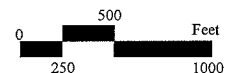
## **D.     HĀNA COMMUNITY PLAN**

The existing Hāna landfill site is designated by the Hāna Community Plan for Public/Quasi-Public land use. A portion of the active landfill on Parcel 7 is designated “Light Industrial”, while the remaining portion of Parcel 7 of the expansion area approved by the Board of Land and Natural Resources is designated “Agricultural”. See **Figure 11**. The proposed removal of municipal solid waste (MSW) and relocating refuse





**Figure 11** Proposed Makai Hāna Landfill  
Clean-Up and Closure  
Community Plan Land Use Map



to the existing active landfill area is consistent with the underlying community plan designations. In addition, the proposed project is consistent with the following Goal and Policy (Physical Infrastructure) of the Hāna Community Plan:

**Goal**

*Timely and environmentally sensitive development and maintenance of infrastructure systems which protect and preserve the safety and health of the Hāna region's residents and visitors, including the provision of domestic water, utility and waste disposal services, and effective transportation systems which meet the needs of residents and visitors while protecting the region's natural character.*

**Policy (Solid Waste)**

*Develop and implement a comprehensive waste management plan which includes reduction, recycling and reuse of solid waste and wastewater as major plan components.*

The proposed improvements are consistent with the goal of protecting the region's natural character and the policy to implement a comprehensive waste management plan for the East Maui region.

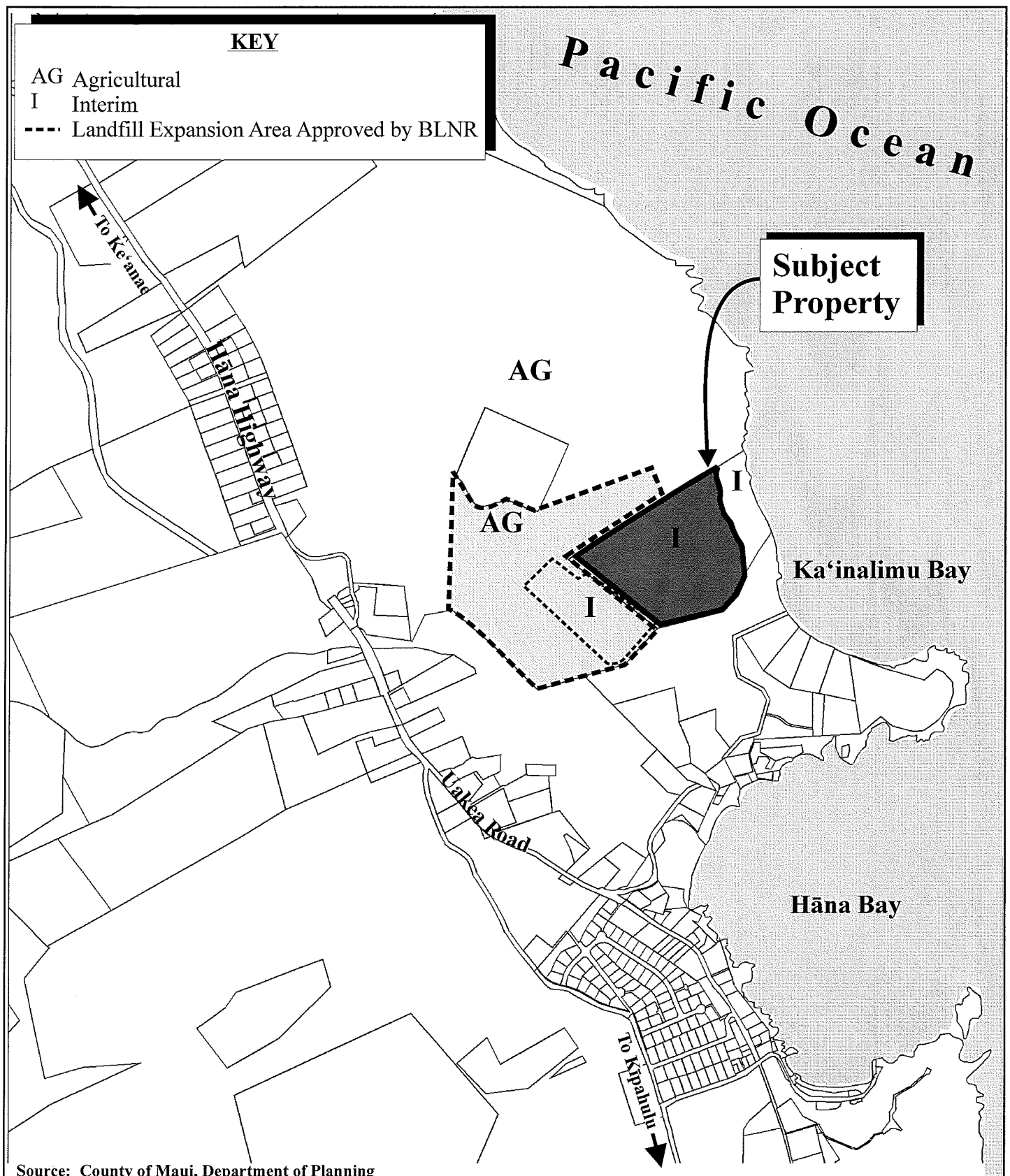
**E. ZONING**

Permitted uses and development standards are set forth by Title 19 of the Maui County Code (MCC) relating to zoning. Infrastructural systems, including roadway and supporting structures (e.g., drainage basins), are permitted in each of the County zoning districts.

Parcel 12, the existing landfill site, is County zoned Interim. See **Figure 12**.

Pursuant to MCC, Section 19.02A.030, Interim Zoning Provisions, public/quasi-public facilities are permitted in the Interim District.

Parcel 7 is located within the Agricultural District and Interim District. As previously mentioned, a State Land Use Special Use Permit and a County Special Use Permit have been approved for the landfill operations in the Agricultural District. These two (2) permits are valid until 2018.



**Figure 12**      **Proposed Makai Hāna Landfill**  
**Clean-Up and Closure**  
**Parcel Zoning Map**

NOT TO SCALE



## **F. HAWAI‘I COASTAL ZONE MANAGEMENT PROGRAM – OBJECTIVES AND ENFORCEABLE POLICIES**

The project site is located within the County of Maui’s Special Management Area (SMA). Pursuant to Chapter 205A, HRS, and the SMA Rules and Regulations for the Maui Planning Commission, actions proposed within the SMA are evaluated with respect to SMA objectives, policies and guidelines. (It is noted that Chapter 205A, HRS was adopted in 1977 by the State of Hawai‘i, after the Hāna Landfill was opened.) The expansion of the active landfill received an SMA Use Permit approval in 2007 (SM1 2007/0001). This section addresses the proposed action in relation to applicable coastal zone management considerations, as set forth in Chapter 205A and the Rules and Regulations of the Maui Planning Commission.

### **1. Recreational Resources**

**Objective:** Provide coastal recreational opportunities accessible to the public.

**Policies:**

- (A) *Improve coordination and funding of coastal recreational planning and management; and*
- (B) *Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:*
  - (i) *Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;*
  - (ii) *Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;*
  - (iii) *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
  - (iv) *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*

- (v) *Ensuring public recreational uses of County, State, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;*
- (vi) *Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;*
- (vii) *Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and*
- (viii) *Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and County authorities; and crediting such dedication against the requirements of Section 46-6, HRS.*

**Response:** The proposed clean-up and closure of the Makai Hāna Landfill and relocation of the municipal solid waste to the active landfill will not result in any adverse physical alterations to the environment. The Makai Hāna Landfill post-clean-up topography will be designed to promote natural drainage conditions. Soil testing, to ensure subgraded conditions are below DOH Environmental Action Levels (EALs), will ensure no adverse impacts to coastal recreational resources. Further, access to and along the shoreline environment, including the ancient Pi'ilani Trail, are located outside the project boundaries and will not be impeded by the proposed action. The Pi'ilani Trail is located within a 250 foot conservation area between the eastern landfill boundary and the coastline.

## 2. **Historic Resources**

**Objective:** *Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawai'ian and American history and culture.*

### **Policies:**

- (A) *Identify and analyze significant archeological resources;*
- (B) *Maximize information retention through preservation of remains and artifacts or salvage operations; and*

- (C) *Support State goals for protection, restoration, interpretation, and display of historic resources.*

**Response:** An archaeological assessment was conducted in 2003 on the subject property, indicating that the underlying lands have been significantly altered during prior grading and landfill activities. There were no significant material culture remains identified by the inspection. The archaeological assessment carried out with subsurface testing around the boundaries of the Makai Hāna Landfill area in 2015 indicated the proposed clean-up and closure action is not anticipated to have an adverse effect on historic properties. However given the near coastal location of the project site, it was not possible to test within the physical footprint of the Makai Hāna Landfill. Archaeological monitoring is recommended during initial ground altering activities around the margins of the Makai Hāna Landfill and periodically when work is near the original land surface elevation. Refer to **Appendix “C-1”**. SHPD concurred with the recommendation for archaeological monitoring. An Archaeological Monitoring Plan will be submitted to SHPD for review and approval prior to initiation of ground disturbance. Refer to **Appendix “C-2”**. In the event that any subsurface archaeological resources are encountered during grading activities, all work will be halted in the vicinity of the find and the SHPD will be contacted immediately to determine an appropriate mitigation strategy.

### 3. **Scenic and Open Space Resources**

**Objective:** *Protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources.*

**Policies:**

- (A) *Identify valued scenic resources in the coastal zone management area;*
- (B) *Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;*
- (C) *Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and*
- (D) *Encourage those developments that are not coastal dependent to locate in inland areas.*

**Response:** The project site is not located within a significant coastal view corridor. The proposed project is not anticipated to result in adverse impacts to shoreline views or open space resources. The active Hāna landfill operations are located over 350 feet from the shoreline.

#### 4. **Coastal Ecosystems**

**Objective:** *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

**Policies:**

- (A) *Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;*
- (B) *Improve the technical basis for natural resource management;*
- (C) *Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;*
- (D) *Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and*
- (E) *Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.*

**Response:** Best Management Practices (BMPs) will be utilized to ensure that grading activities in association with the Makai Hāna Landfill clean-up and closure do not adversely impact coastal ecosystems. Runoff from the active landfill operations will continue to be channeled and directed to the onsite detention basin. Further, the DEM will continue to maintain its quarterly groundwater monitoring program as well as use of BMPs during daily landfill operations to prevent adverse impacts to the surrounding environment.

#### 5. **Economic Uses**

**Objective:** *Provide public or private facilities and improvements important to the State's economy in suitable locations.*



**Policies:**

- (A) *Concentrate coastal dependent development in appropriate areas;*
- (B) *Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and*
- (C) *Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:*
  - (i) *Use of presently designated locations is not feasible;*
  - (ii) *Adverse environmental effects are minimized; and*
  - (iii) *The development is important to the State's economy.*

**Response:** The Hāna Landfill operation has been ongoing at the subject property since 1969. Removal of the MSW from the Makai Hāna Landfill to the current active landfill will maintain a public facility important to the County and State in a suitable location. The proposed project is anticipated to result in beneficial impacts to the economy of East Maui and Maui County through local contract expenditures for goods and services.

**6. Coastal Hazards**

**Objective:** *Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution.*

**Policies:**

- (A) *Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;*
- (B) *Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;*
- (C) *Ensure that developments comply with requirements of the Federal Flood Insurance Program; and*

(D) *Prevent coastal flooding from inland projects.*

**Response:** According to the Flood Insurance Rate Map for the area, the main portion of the clean-up operations and active landfill are located within Flood Zone X, an area outside of the 100-year flooding with no development restrictions. Two (2) small areas of Parcel 12 outside of the project site along the eastern boundary are located in Zone AE which is subject to inundation by the one (1) percent annual chance flood with a flood elevation of approximately 17 feet amsl. A Special Flood Hazard Development Permit will be secured from the Planning Department for the work in the Zone AE area. After removal of the MSW, the area will be vegetated to reduce impacts from stormwater runoff. Grading and landfill operations are in upland areas, located at elevations in excess of 20 feet amsl and above the base flood elevation. Implementation of the project is not anticipated to increase the region's susceptibility to coastal hazards.

7. **Managing Development**

**Objective:** *Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*

**Policies:**

- (A) *Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;*
- (B) *Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and*
- (C) *Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.*

**Response:** In compliance with the requirements of Chapter 343, HRS, this EA has been prepared to facilitate public understanding and involvement with the proposed project. The EA will also be the technical supporting document for the SMA Permit and CDUP applications.

## 8. **Public Participation**

**Objective:** *Stimulate public awareness, education, and participation in coastal management.*

**Policies:**

- (A) *Promote public involvement in coastal zone management processes;*
- (B) *Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and*
- (C) *Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.*

**Response:** As previously noted, public awareness of the project is being promoted through the EA, SMA Permit and CDUP processes. The proposed project is not contrary to the objectives of public awareness, education, and participation.

## 9. **Beach Protection**

**Objective:** *Protect beaches for public use and recreation.*

**Policies:**

- (A) *Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;*
- (B) *Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and*
- (C) *Minimize the construction of public erosion-protection structures seaward of the shoreline.*

**Response:** During grading activities associated with the clean-up of the Makai Hāna Landfill, appropriate BMP's will be utilized to ensure the downstream coastal environment is not adversely impacted. A 250 foot conservation area

exists between the current landfill eastern boundary and the shoreline. The conservation designated area protects beaches for public use and recreation.

**10. Marine Resources**

**Objective:** *Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

**Policies:**

- (A) *Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;*
- (B) *Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;*
- (C) *Assert and articulate the interests of the State as a partner with Federal agencies in the sound management of ocean resources within the United States exclusive economic zone;*
- (D) *Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and*
- (E) *Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.*

**Response:** The proposed (post clean-up) grading improvements are designed to collect and channel onsite runoff to natural drainage channels. The proposed municipal solid waste clean-up operations are not anticipated to increase storm-water runoff. The relocation of the municipal solid waste from the Makai Hāna Landfill to the active landfill area is not anticipated to adversely impact coastal marine resources.

In addition to the foregoing objectives and policies, SMA permit review criteria pursuant to §205A 30.5(a) Prohibitions provides that:

*No special management area use permit or special management area minor permit shall be granted for structures that allow artificial light from floodlights, uplights, or spotlights used for decorative or aesthetic purposes when the light:*

- (1) *Directly illuminates the shoreline and ocean waters; or*
- (2) *Is directed to travel across property boundaries toward the shoreline and ocean waters.*

Further, artificial lighting provided by a government agency or its authorized users for government operations, security, public safety, or navigational needs shall make reasonable efforts to properly position or shield lights to minimize adverse impacts.

**Response:** All grading, clean-up, and landfill operations are carried out during daylight hours. There are no artificial outdoor lights that directly illuminate the shoreline or ocean waters.

## **G. MAUI PLANNING COMMISSION SPECIAL MANAGEMENT AREA RULES AND REGULATIONS**

The Rules and Regulations of the Maui Planning Commission, Chapter 202 were established in order to implement HRS, Chapter 205A relating to Coastal Zone Management and Special Management Areas. In addition to establishing procedures for processing of SMA applications and procurement of related permits, the rules assist the Commission in giving consideration to State policy regarding coastal zones.

This section addresses the project's relationship to applicable coastal zone management considerations as set forth in the Maui Planning Commission Rules and Regulations, Chapter 202, "Special Management Area Permit Procedures," which are provided for considering the significance of potential environmental and ecological effects of a proposed action. The criteria have been reviewed and analyzed with respect to the proposed project.

### **1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resources.**

Based on the archaeological investigations, including subsurface testing and cultural impact assessment findings, there are no adverse impacts to natural or cultural resources anticipated as a result of the proposed project. However, as noted previously, archaeological monitoring is recommended during initial ground altering activities around the margins of the Makai Hāna Landfill and periodically when work is near the original land surface elevation. Refer to **Appendix "C-1"** and **Appendix "C-2"**. The clean-up and closure of the Makai Hāna Landfill will be carried out pursuant to a Conservation District Use Permit and in compliance with the Conservation District goals and objectives. In

accordance with Section 6E-43.6, HRS and Chapter 13-300, Hawai'i Administrative Rules (HAR), if any significant cultural deposits or human skeletal remains are encountered, work will stop in the immediate vicinity and SHPD will be contacted to establish the appropriate protocols and level of mitigation. In addition, there are no streams or wetlands which will be impacted, and there are no rare, threatened, or endangered species of plants or wildlife anticipated to be adversely affected by the proposed project.

2. **Significantly curtails the range of beneficial uses of the environment.**

The proposed project will not curtail the range of beneficial uses of the environment. Applicable dust control, noise control, and drainage control measures will be implemented during the clean-up operations to minimize any construction-related impacts.

3. **Conflicts with the County's or the State's long-term environmental policies or goals.**

As the proposed project brings the Makai Hāna Landfill into compliance with regulations, the activity does not conflict with the State's Environmental Policy and Guidelines as set forth in Chapter 344, HRS. The proposed action is consistent with the underlying land use designations of the Hāna Landfill parcel.

4. **Substantially affects the economic or social welfare and activities of the community, County, or State.**

On a short-term basis, the project will support construction and construction-related employment and have a beneficial impact on the local economy during the period of construction. On a long-term basis, the project benefits the community welfare by ensuring a MSW facility that complies with State and Federal regulations.

5. **Involves substantial secondary impacts, such as population changes and increased effects on public facilities, streets, drainage, sewage, and water systems, and pedestrian walkways.**

As the proposed action is limited in scope to the clean-up and closure of the Makai Hāna Landfill, the project will not result in adverse secondary impacts to population, public services and facilities and public infrastructure systems.

6. **In itself has no significant adverse effects but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.**

The proposed activity brings the Makai Hāna Landfill into compliance with environmental Federal and State regulations. As such, the proposed project is not anticipated to have a cumulative adverse impact on the environment, nor involve a commitment to larger actions.

7. **Substantially affects a rare, threatened, or endangered species of animal or plant, or its habitat.**

There are no rare, threatened, or endangered species of fauna, flora, or their habitats in or adjacent to the project site. Adverse impacts to these resources are not anticipated.

8. **Is contrary to the State plan, County's general plan, appropriate community plans, zoning and subdivision ordinances.**

The proposed action is in accordance with applicable State, County, and the Hāna Community Plan land use policies and plans.

As previously noted, SMA Permit and CDUP applications will be processed for the proposed project.

9. **Detrimentially affects air or water quality or ambient noise levels.**

Short-term air quality and noise impacts from the proposed action will be mitigated through the implementation of Best Management Practices (BMPs). There are no long-term effects on air, water quality, or noise as a result of the proposed project.

10. **Affects an environmentally sensitive area, such as flood plains, shoreline, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh waters, or coastal waters.**

The project site is located within Flood Zone X (unshaded) and two (2) small areas along the eastern boundary is located in Zone AE. Zone X designation denotes an area of low flood risk and minimal flooding with no development restrictions and Zone AE denotes a flood hazard area subject to inundation by the one (1) percent annual chance flood. A small portion of the proposed action will occur on lands within Zone AE. A Special Flood Hazard Area Development Permit will be secured for the work within the Zone AE area, prior to the start of



construction. Graded areas will be revegetated to mitigate stormwater runoff from the site. The subject property is not located within the tsunami evacuation zone. As such, the proposed project is not anticipated to present significant adverse impacts on any environmentally sensitive areas.

**11. Substantially alters natural land forms and existing public views to and along the shoreline.**

The proposed project will not adversely alter natural land forms and is not within a public view corridor. The grading of the Makai Hāna Landfill area will restore the topography of the area to its approximate pre-waste disposal topographic conditions.

**12. Is contrary to the objectives and policies of chapter 205A, HRS.**

A review of the objectives and policies of Chapter 205A, HRS, is provided in its entirety in the previous part of this section. Therein, it addresses the project's relationship to the Coastal Zone Management considerations. Based on the foregoing analysis, the project will appropriately and adequately mitigate impacts to SMA-relevant areas of interest. Accordingly, there are no significant adverse environmental impacts anticipated with the proposed project.

**IV. SUMMARY OF ADVERSE  
ENVIRONMENTAL EFFECTS  
WHICH CANNOT BE  
AVOIDED**

## **IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED**

The proposed clean-up and closure of the Makai Hāna Landfill will result in certain unavoidable operational and construction-related impacts, including noise-generated impacts and air quality impacts associated with the operation of equipment. Air quality will also be impacted by dust generated from grading work. However, all operational and construction-related impacts will be temporary and mitigated through implementation of appropriate Best Management Practices. The impacts of the proposed action are not anticipated to be significant.

## **V. ALTERNATIVES TO THE PROPOSED ACTION**

## **V. ALTERNATIVES TO THE PROPOSED ACTION**

The proposed action is necessary to comply with Title 40 of the Code of Federal Regulations (CFR) and the Department of Health (DOH), Hawai'i Administrative Rules (HAR), Title 11-58.1-17, which sets forth minimum National and State criteria under the Resource Conservation and Recovery Act, for all municipal solid waste landfill (MSWLF) units and under the Clean Water Act. All MSWLF units that receive waste on or after October 9, 1993 are required to meet the provision of Title 40 and HAR Title 11-58.1-17 which in the case of the Hāna Landfill included clean-up of the municipal solid waste (MSW) deposited at the Makai Hāna Landfill subsequent to 1993.

### **A. PREFERRED ALTERNATIVE – CLEAN CLOSURE**

The preferred alternative is the clean closure, which involves the clean-up and removal of all MSW from the Makai Hāna Landfill and relocation of the refuse to the current Active Hāna Landfill area. As removal is completed, vegetation will be restored at the former landfill site.

### **B. CLOSE IN PLACE ALTERNATIVE**

The alternatives considered to meet the requirements of CFR, Title 40 and HAR, Title 11-58.1-17 were limited to the removal or retention in place of the MSW deposited in the Makai Hāna Landfill from October 9, 1993 (the effective date of CFR, Title 40) to 2003, when landfill operations ceased on the east side of Waikoloa Road. The close in place alternative would require importing low-to-medium permeability soil to place a minimum 18-inch cap of soil over the 6.4-acre Makai Hāna Landfill area, providing engineered drainage facilities, and complying with post-closure maintenance and monitoring requirements for a minimum 30-year period. The County considered this alternative, including its incompatibility with Conservation District goals and objectives, and determined it was not preferable to the Clean Closure alternative.

### **C. NO ACTION ALTERNATIVE**

The no action alternative would mean the Hāna Landfill would not be in compliance with Federal and State regulations which would present implications on its ability to be operated as a MSWLF in the future. As such, the no action alternative is not considered viable in this instance.

**D. DEFERRED ACTION ALTERNATIVE**

The “deferred action” alternative would have similar consequences as a “no action” alternative as the Hāna Landfill would not be in compliance with Federal and State regulations for a period of time until a closure project was pursued. As such, this could present implications to the County of Maui, Department of Environmental Management (DEM) ability to continue to provide adequate waste disposal services to residents in the East Maui region and its ability to maintain a Department of Health (DOH) permit for the Hāna Landfill.

## **VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**



## **VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

The proposed action will involve the commitment of additional lands, fuel, labor, funding and material resources. Given the need for operational compliance with Federal, State, and County land use and landfill regulations, the commitment of resources is justified based on the eventual benefits to be realized through project implementation and continuation of convenient and reliable solid waste services to the Hāna region.

## **VII. FINDINGS AND CONCLUSIONS**

## VII. FINDINGS AND CONCLUSIONS

The proposed project has been evaluated in accordance with the Significance Criteria of Department of Health (DOH), Section 11-200-12 of the Hawai'i Administrative Rules, Environmental Impact Statement Rules. Based on the following analysis, the proposed project is not anticipated to result in any significant adverse impacts. A discussion of project conformance to the criteria is presented below:

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.**

According to an archaeological assessment in 2003 and archaeological assessment survey with subsurface testing completed in 2015 for the Department of Environmental Management (DEM), implementation of the project is not anticipated to result in adverse impacts to archaeological resources. The State Historic Preservation Division (SHPD) reviewed and approved the archaeological assessment report and concurred with the recommendation for archaeological monitoring. An Archaeological Monitoring Plan will be submitted to SHPD for review and approval prior to initiation of ground altering work.

No rare, endangered or threatened species of flora, fauna, or avifauna have been identified within the vicinity of the project site.

The proposed project is not anticipated to result in significant adverse impact to natural or cultural resources.

2. **Curtails the range of beneficial uses of the environment.**

The proposed project involves the clean-up of municipal solid waste in an area designated Conservation District and within the Special Management Area (SMA) which will be disposed of in an active landfill area which is permitted. The existing landfill operations are activities which have been in operation at the property since 1969. The proposed clean-up operation is not anticipated to curtail the range of beneficial uses of the environment.

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 State Environmental Policy and Guidelines are set forth in Chapter 344, Hawai'i Revised Statutes (HRS). The proposed action is not contrary to the policies and guidelines set forth in Chapter 344, HRS.

4. **Substantially affects the economic welfare, social welfare, and cultural practices of the community or State.**

Based on the analysis presented herein, there are no long-term adverse economic, social welfare, or cultural impacts anticipated as a result of project implementation.

5. **Substantially affects public health.**

The proposed action is not anticipated to adversely impact public health. Grading operations and construction Best Management Practices (BMPs) as well as soil testing of the subgrade to levels within DOH's Environmental Action Levels (EALs), will ensure onsite stormwater runoff will be consistent with the requirements of the Clean Water Act.

The existing landfill has been in operation since 1969. Adverse effects to public health have not been identified from current operations. No long-term negative impacts to the public's health and welfare are anticipated as a result of the proposed action. Environmental monitoring of methane gas and groundwater quality continues to be carried out at the site and reported to DOH to ensure protection of public health.

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

The proposed project is not anticipated to result in secondary impacts such as population changes or increased demands on regional public facilities. The proposed project will ensure continuation of convenient and reliable solid waste services to the Hāna region.

7. **Involves a substantial degradation of environmental quality.**

The existing landfill operations have been ongoing since 1969. During grading associated with the proposed clean-up and closure operations, appropriate BMPs

will be utilized to ensure that potential adverse environmental effects are mitigated. No substantial degradation of the environment is anticipated as a result of project implementation. As mentioned previously, environmental monitoring of methane gas and groundwater is regularly carried out to ensure the environmental quality of landfill operations.

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

The proposed project does not represent a commitment to larger actions. The proposed action addresses compliance requirements for an existing landfill to ensure continued service to the Hāna region and with monitoring of landfill activities, the action is not anticipated to create or contribute to significant adverse long-term environmental effects.

9. **Substantially affects a rare, threatened, or endangered species, or its habitat.**

There are no known or identified habitats of rare, threatened, or endangered species of flora or fauna in the vicinity of the project site. Given the scale and location of the clean-up operations, no habitats or natural environments are anticipated to be adversely affected by the proposed project.

10. **Detrimently affects air or water quality or ambient noise levels.**

Appropriate BMPs will be implemented during grading activities and removal of the municipal solid waste to ensure that adverse environmental impacts on air quality and ambient noise levels are mitigated. The DEM will continue to monitor the quality of groundwater in the project vicinity and report the findings to DOH to ensure that potential impacts to water quality are avoided.

In the long term, the proposed project is not anticipated to have a significant impact on air quality, water quality or noise parameters.

11. **Affects or 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 clean-up area and lands utilized for the Active Hāna Landfill area are not considered to be erosion prone or geologically hazardous. There are no estuaries or coastal waters which are adversely impacted by daily landfill operations. A portion of the Makai Hāna Landfill is located in flood hazard Zone AE. A Special

Flood Hazard Development Permit will be obtained prior to initiation of construction. Further, the Makai Hāna Landfill is not a habitable area that would be a risk to human life. The proposed action is, therefore, not anticipated to adversely impact environmentally sensitive areas.

12. **Substantially affects scenic vistas and viewplanes identified in country or State plans or studies.**

The proposed project is not identified as a scenic vista or viewplane. The proposed action will not affect scenic corridors and coastal scenic and open space resources.

13. **Requires substantial energy consumption.**

The proposed project will result in the short-term commitment of fuel for equipment, vehicles and machinery during grading activities. However, the short-term energy demand is not considered substantive or excessive within the context of the region's overall energy consumption. In the long term, the project is not anticipated to create additional demands for energy consumption.

Based on the foregoing analysis, the proposed action has been determined to result in a Finding of No Significant Impact (FONSI) by the Department of Environmental Management.

## **VIII. LIST OF PERMITS AND APPROVALS**

## **VIII. LIST OF PERMITS AND APPROVALS**

The following permits and approvals will be required prior to the implementation of the project:

### **State of Hawai‘i**

1. Hawai‘i Revised Statutes, Chapter 343 Compliance
2. Conservation District Use Permit
3. National Pollutant Discharge Elimination System (NPDES) Permit, as applicable
4. Community Noise Permit, as applicable
5. Oversize/Overweight Vehicle Transport over State Highways Permit, as applicable

### **County of Maui**

1. Special Management Area (SMA) Permit
2. Special Flood Hazard Development Permit
3. Grading Permits



**IX. AGENCIES CONSULTED  
DURING THE PREPARATION  
OF THE DRAFT  
ENVIRONMENTAL  
ASSESSMENT; LETTERS  
RECEIVED AND RESPONSES  
TO SUBSTANTIVE  
COMMENTS**

# IX. AGENCIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies were consulted during the early consultation process in the preparation of the Draft Environmental Assessment (EA). Letters received and responses to substantive comments are included in this section.

## FEDERAL AGENCIES

1. Larry Yamamoto, State  
Conservationist  
Natural Resources Conservation  
Service  
**U.S. Department of Agriculture**  
P.O. Box 50004  
Honolulu, Hawai'i 96850-0001
2. Ranae Ganske-Cerizo, Soil  
Conservationist  
Natural Resources Conservation  
Service  
**U.S. Department of Agriculture**  
77 Hookele Street, Suite 202  
Kahului, Hawai'i 96732
3. Shelly Lynch, Chief, Regulatory  
Branch  
**U.S. Department of the Army**  
U.S. Army Engineer District,  
Honolulu  
Regulatory Branch, Building 230  
Fort Shafter, Hawai'i 96858-5440
4. Wendy Wiltse, Environmental  
Scientist  
**U.S. Environmental Protection  
Agency**  
300 Ala Moana Blvd., Box 50003  
Honolulu, Hawai'i 96850
5. Loyal A. Mehrhoff, Field Supervisor  
**U. S. Fish and Wildlife Service**  
300 Ala Moana Blvd., Rm. 3-122  
Box 50088  
Honolulu, Hawai'i 96813

## STATE AGENCIES

6. Douglas G. Murdock, Acting  
Comptroller  
**Department of Accounting and  
General Services**  
1151 Punchbowl Street, #426  
Honolulu, Hawai'i 96813
7. Scott Enright, Chair  
**Department of Agriculture**  
1428 South King Street  
Honolulu, Hawai'i 96814-2512
8. Luis P. Salaveria, Acting Director  
State of Hawai'i  
**Department of Business, Economic  
Development & Tourism**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
9. Heidi Meeker  
Office of Business Services  
**Department of Education**  
c/o Kalani High School  
4680 Kalaniana'ole Highway, #T-  
B1A  
Honolulu, Hawai'i 96821
10. Virginia Pressler, M.D., Acting  
Director  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814

11. Alec Wong, P.E., Chief  
Clean Water Branch  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
  12. Patti Kitkowski  
State of Hawai'i  
**Department of Health**  
Maui Sanitation Branch  
54 South High Street, Room 300  
Wailuku, Hawai'i 96793
  13. Laura McIntyre, AICP  
Environmental Planning Office  
**Department of Health**  
919 Ala Moana Blvd., Suite 312  
Honolulu, Hawai'i 96814
  14. Carty Chang, Acting Chairperson  
State of Hawai'i  
**Department of Land and Natural Resources**  
P. O. Box 621  
Honolulu, Hawai'i 96809
  15. Alan Downer, Administrator  
State of Hawai'i  
Department of Land and Natural Resources  
**State Historic Preservation Division**  
601 Kamokila Blvd., Room 555  
Kapolei, Hawai'i 96707
  16. Morgan Davis  
State of Hawai'i  
Department of Land and Natural Resources  
**State Historic Preservation Division**  
130 Mahalani Street  
Wailuku, Hawai'i 96793
  17. Ford Fuchigami, Director  
State of Hawai'i  
**Department of Transportation**  
869 Punchbowl Street  
Honolulu, Hawai'i 96813
  18. Jobie Masagatani, Director  
**Hawaiian Home Lands Commission**  
P.O. Box 1879  
Honolulu, Hawai'i 96805
  19. Jessica Wooley, Director  
**Office of Environmental Quality Control**  
235 S. Beretania Street, Suite 702  
Honolulu, Hawai'i 96813
  20. Dr. Kamana'opono Crabbe, Chief  
Executive Officer  
**Office of Hawai'ian Affairs**  
560 North Nimitz Highway, Suite 200  
Honolulu, Hawai'i 96817
  21. Leo R. Asuncion, Jr., AICP, Acting  
Director  
State of Hawai'i  
**Office of Planning**  
P. O. Box 2359  
Honolulu, Hawai'i 96804
  22. Dan Orodenker, Executive Officer  
State of Hawai'i  
**State Land Use Commission**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
- COUNTY AGENCIES**
23. Kyle Ginoza, Director  
County of Maui  
**Department of Environmental Management**  
2050 Main Street, Suite 1C  
Wailuku, Hawai'i 96793
  24. Jeffrey A. Murray, Chief  
County of Maui  
**Department of Fire and Public Safety**  
200 Dairy Road  
Kahului, Hawai'i 96732
  25. Jo-Ann Ridao, Director  
County of Maui  
**Department of Housing and Human Concerns**  
One Main Plaza  
2200 Main Street, Suite 546  
Wailuku, Hawai'i 96793
  26. Ka'ala Buenconsejo, Director  
County of Maui  
**Department of Parks and Recreation**  
700 Hali'a Nako Street, Unit 2  
Wailuku, Hawai'i 96793

27. William Spence, Director  
County of Maui  
**Department of Planning**  
2200 Main Street, Suite 315  
Wailuku, Hawai'i 96793
28. Tivoli Faaumu, Chief  
County of Maui  
**Police Department**  
55 Mahalani Street  
Wailuku, Hawai'i 96793
29. David Goode, Director  
County of Maui  
**Department of Public Works**  
200 South High Street  
Wailuku, Hawai'i 96793
30. Jo Anne Johnson Winer, Director  
County of Maui  
**Department of Transportation**  
200 South High Street  
Wailuku, Hawai'i 96793
31. David Taylor, Director  
County of Maui  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawai'i 96793
32. Honorable Robert Carroll  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793

**OTHER**

33. John Kahalehoe  
**Hāna Community Association**  
P. O. Box 471  
Hāna, Hawai'i 96713

DAVID Y. IGE  
GOVERNOR



MAR 09 2015

DOUGLAS MURDOCK  
Comptroller

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

MAR - 6 2015

(P)1041.5

Mr. Mich Hirano, AICP, Senior Advisor  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Hirano:

Subject: Early Consultation for  
Proposed Clean-Up and Closure of Makai Hana Landfill  
Hana, Maui, Hawaii  
TMK: (2) 1-3-006P por 12

Thank you for the opportunity to comment on the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities. Therefore, we have no comments to offer at this time.

If you have any questions, your staff may contact Ms. Gayle Takasaki of the Public Works Division at (808) 586-0584.

Sincerely,

A handwritten signature in dark ink, appearing to read "Douglas Murdock", written over a horizontal line.

DOUGLAS MURDOCK  
Comptroller



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
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Mark Alexander Roy  
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Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Douglas Murdock, Comptroller  
Department of Accounting and General Services  
State of Hawaii  
P.O. Box 119  
Honolulu, Hawaii 96810-0119

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui ((P)1041.5)

Dear Mr. Murdock:

Thank you for your letter of March 6, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management we appreciate your letter of confirmation that the proposed project does not affect your Department's projects or facilities and that you have no comments at this time.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

K:\DATA\A-MEHR\HanaSolidWaste\ECL Response Letters\DAGS.ecresponse.letter.docx

Maui: 305 High Street, Suite 104 \* Wailuku, Hawaii 96793 \* Tel: 808.244.2015 \* Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 \* Honolulu, Hawaii 96813 \* Tel: 808.983.1233

[www.munekiyo-hiraga.com](http://www.munekiyo-hiraga.com)



FEB 20 2015

KATHRYN S. MATAYOSHI  
SUPERINTENDENT

STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

February 17, 2015

Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Attn: Mich Hirano, AICP, Senior Advisor

Re: **Early Consultation Request for the Proposed Clean-up and Closure of the Makai Hana  
Landfill, Hana, Maui, Hawaii, TMK: (2)1-3-006:012**

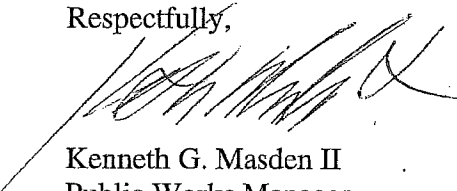
Dear Mr. Hirano:

The Department of Education (DOE) has reviewed the early consultation request for the proposed clean-up and closure of the Makai Hana landfill.

The DOE has no comment to offer regarding this project.

We appreciate the opportunity to provide comments. If you have any questions, please call Heidi Mecker of the Facilities Development Branch at (808) 377-8301.

Respectfully,

  
Kenneth G. Masden II  
Public Works Manager  
Planning Section

KGM:jmb



Michael T. Munekiyo  
PRESIDENT  
Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT  
Mark Alexander Roy  
VICE PRESIDENT  
Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Kenneth G. Masden II  
Public Works Manager  
Planning Section  
Department of Education  
P.O. Box 2360  
Honolulu, Hawaii 96804

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Mr. Masden:

Thank you for your letter of February 17, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management we appreciate your letter of confirmation that you have no comments to offer.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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FEB 17 2015

DAVID Y. IGE  
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File:

02010PGH.15

February 12, 2015

Mr. Mich Hirano, AICP  
Senior Advisor  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Hirano:

**SUBJECT: Comments on Early Consultation Request for the Proposed Clean-up and Closure of the Makai Hana Landfill  
Hana, Island of Maui, Hawaii**

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated February 5, 2015, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: <http://health.hawaii.gov/epo/files/2013/05/Clean-Water-Branch-Std-Comments.pdf>

1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee (\$1,000 for an individual NPDES permit or \$500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: <https://eha-cloud.doh.hawaii.gov/epermit/>. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.
5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
  - a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches

necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

- b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.
- c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
- d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
- e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

If you have any questions, please visit our website at: <http://health.hawaii.gov/cwb/>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF  
Clean Water Branch

GH:bk

July 22, 2015

Alec Wong, P.E., Chief  
Clean Water Branch  
Department of Health  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui (02010PGH.15)

Dear Mr. Wong:

Thank you for your letter of February 12, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. As recommended, the County of Maui Department of Environmental Management (DEM) will review the standard comments on your website and applicable comments will be complied with. Further, on behalf of the DEM, we offer the following information which addresses your comments in the order listed in your letter:

1. We acknowledge that the project must meet the Department of Health (DOH) water quality requirements of Hawaii Administrative Rules (HAR), Chapter 11-54.
2. As may be required, a National Pollutant Discharge Elimination System (NPDES) permit will be submitted to the DOH for approval prior to the initiation of construction.
3. We acknowledge that work in, over, or under waters of the United States may require additional permitting from the U.S. Army Corps of Engineers (USACE), Regulatory Branch. Coordination will be carried out with the USACE to determine Department of Army Permit requirements.
4. We acknowledge the project must comply with the State's Water Quality Standards and non-compliance may be subject to penalties of \$25,000.00 per day per violation.

Alec Wong, P.E., Chief  
July 22, 2015  
Page 2

5. We acknowledge that the project should reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. As such, we have reviewed this information, and as appropriate, will incorporate recommended measures into the project.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. We appreciate your input and a copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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DAVID Y. IGE  
GOVERNOR OF HAWAII



FEB 26 2015

VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.,  
DISTRICT HEALTH OFFICER

**STATE OF HAWAII**  
**DEPARTMENT OF HEALTH**  
**MAUI DISTRICT HEALTH OFFICE**  
54 HIGH STREET  
WAILUKU, HAWAII 96793-3378

February 24, 2015

Mr. Mich Hirano, AICP  
Senior Advisor  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Hirano:

**Subject: Early Consultation Request for the Proposed Clean-up and Closure  
for the Makai Hana Landfill, Hana, Maui, Hawaii**

Thank you for the opportunity to review this project. We have the following comments to offer:

National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.

It is strongly recommended that the Standard Comments found at the Department's website: <http://health.hawaii.gov/epo/home/landuse-planning-review-program/> be reviewed and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230 or E-mail me at [patricia.kitkowski@doh.hawaii.gov](mailto:patricia.kitkowski@doh.hawaii.gov).

Sincerely,

A handwritten signature in black ink that reads "Patti Kitkowski". The signature is written in a cursive, flowing style.

Patti Kitkowski  
District Environmental Health Program Chief

c EPO



**MUNEKIYO HIRAGA**

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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Patti Kitkowski  
District Environmental Health Program Chief  
Department of Health  
54 High Street  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Ms. Kitkoswki:

Thank you for your letter of February 24, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management (DEM) we offer the following information, which addresses your comments in the order listed in your letter:

1. As may be required, a National Pollutant Discharge Elimination System (NPDES) permit will be submitted to the Department of Health (DOH).

Also, DEM will review the standard comments provided on the Department's website and address applicable requirements prior to project implementation.

Patti Kitkowski  
July 22, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

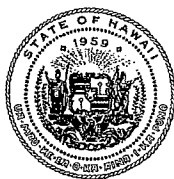
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Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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DAVID Y. IGE  
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File:

EPO 15-032

February 12, 2015

Mr. Mark Alexander Roy, AICP  
Vice President  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Attention: Mich Hirano, AICP, Senior Advisor

Dear Mr. Roy:

**SUBJECT: Early Consultation (EC) Request for the Proposed Clean-up and Closure of the Makai Hana Landfill, Hana, Maui, Hawaii**

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your EC request to our office on February 5, 2015. Thank you for allowing us to review and comment on the proposed project. The application was routed to the District Health Office on Maui, Clean Water Branch and the Solid Hazardous Waste Branch. They will provide specific comments to you if appropriate. EPO recommends that you review the standard comments and available strategies to support sustainable and healthy design provided at: <http://health.hawaii.gov/epo/home/landuse-planning-review-program/>. Projects are required to adhere to all applicable standard comments.

We encourage you to examine and utilize the Hawaii Environmental Health Portal. The portal provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings. The Portal is continually updated. Please visit it regularly at: <https://eha-cloud.doh.hawaii.gov>

You may also wish to review the revised Water Quality Standards Maps that have been updated for all islands. The Water Quality Standards Map for Maui can be found at: [http://health.hawaii.gov/cwb/files/2013/05/WQS\\_20140708\\_Maui\\_Reduced.pdf](http://health.hawaii.gov/cwb/files/2013/05/WQS_20140708_Maui_Reduced.pdf)

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design.

Mahalo nui loa,

  
Laura Leialoha Phillips McIntyre, AICP  
Program Manager, Environmental Planning Office

c: DLNR OCCL {via email: [dlnr.occl@hawaii.gov](mailto:dlnr.occl@hawaii.gov)}  
Elaine Baker, County of Maui {via email: [Elaine.Baker@co.maui.hi.us](mailto:Elaine.Baker@co.maui.hi.us)}  
DHO Maui, CWB, SHWB {via email only}



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Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Laura Leialoha Phillips McIntyre, AICP, Program Manager  
Department of Health  
Environmental Planning Office  
State of Hawaii  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui (EPO 15-032)

Dear Ms. McIntyre:

Thank you for your letter dated February 12, 2015, providing early consultation comments on the Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. As recommended, the Department of Environmental Management (DEM) will review the standard comments and other information provided in your letter. Also, on behalf of DEM we will review the updated Water Quality Standards Maps for Maui island.

Laura Leialoha Phillips McIntyre, AICP, Program Manager  
July 22, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. We appreciate your input and a copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,



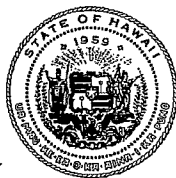
Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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DAVID Y. IGE  
GOVERNOR OF HAWAII



MAR 16 2015

VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File:

March 11, 2015

S0313KMK

Mr. Mark Alexander Roy, AICP  
Vice President  
Munekiyo and Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Roy:

SUBJECT: Environmental Impact Statement Preparation Notice  
Makai Hana Landfill

Thank you for the opportunity to review and provide comments on the subject document. The Solid Waste Section (SWS) of the Solid and Hazardous Waste Branch has been in contact with the County of Maui (County) regarding the cleanup and closure of the Makai portion of the Hana Landfill.

Upon review of the information provided by the County, it has been determined that the proposed activities are subject to state solid waste regulation and associated permitting requirements. Since a solid waste permit application has been submitted by the County for the remainder of the Hana Landfill, the applicable SWS concerns pertaining to the cleanup and closure of the Makai portion of the landfill will be addressed as part of the permit application and the solid waste regulatory process.

Please contact Mr. Kevin Kihara of our Solid Waste Section at (808) 586-4226 with any questions or comments regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Y.K. Chang".

STEVEN Y.K. CHANG, P.E., CHIEF  
Solid and Hazardous Waste Branch

c: Department of Health-Environmental Planning Office  
Maui District Health Office



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Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Steven Y.K. Chang, P.E., Chief  
Solid and Hazardous Waste Branch  
Department of Health  
State of Hawaii  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui (S0313KMK)

Dear Mr. Chang:

Thank you for your letter, dated March 11, 2015, providing early consultation comments on the Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui, Department of Environmental Management (DEM), we acknowledge that the Solid Waste Section (SWS) of the Solid and Hazardous Waste Branch will conduct its review during processing of the solid waste permit application (currently under review) and solid waste regulatory process.

We wish to note that the letter request was for early consultation in preparation of a Draft EA and not an Environmental Impact Statement Preparation Notice as indicated in your subject heading. The need for an Environmental Impact Statement for the project will be determined upon review of the Final EA.

Steven Y.K. Chang, P.E., Chief  
July 22, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. We appreciate your input and a copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

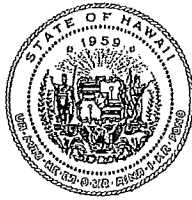
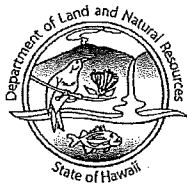
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Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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MAR 06 2015

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

March 6, 2015

CARTY S. CHANG  
INTERIM CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DANIEL S. QUINN  
INTERIM FIRST DEPUTY

W. ROY HARDY  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAIHOLA WE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

Munekiyo & Hiraga, Inc.  
Attention: Mr. Mich Hirano, AICP  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

via email: [planning@mhplanning.com](mailto:planning@mhplanning.com)

Dear Mr. Hirano:

SUBJECT: Early Consultation Request for the Proposed Clean-up and Closure of the  
Makai Hana Landfill

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments previously sent you on February 27, 2015 enclosed are comments from the State Historic Preservation Division on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

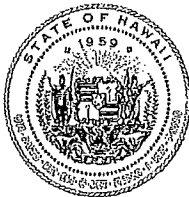
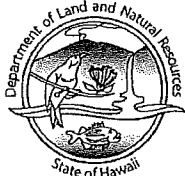
Sincerely,

A handwritten signature in black ink, appearing to read "Kevin E. Moore".

Kevin E. Moore  
Acting Land Administrator

Enclosure(s)  
cc: Central Files

DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

CARTY S. CHANG  
INTERIM CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DANIEL S. QUINN  
INTERIM FIRST DEPUTY

W. ROY HARDY  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

March 6, 2015

**MEMORANDUM**

**TO:** Russell Y. Tsuji, Administrator  
DLNR Land Division  
Via email to: [Russell.Y.Tsuji@hawaii.gov](mailto:Russell.Y.Tsuji@hawaii.gov)

Log No: 2015.00536  
Doc No: 1503JP01  
Archaeology

A handwritten signature in black ink, appearing to read "Morgan E. Davis".

**FROM:** Morgan E. Davis, Lead Archaeologist, Maui Section

**SUBJECT:** Chapter 6E-8 Historic Preservation Review -  
Early Consultation Request for the Proposed Clean-up and Closure of the Makai Hana Landfill  
Kawaipapa Ahupua'a, Hana District, Island of Maui  
TMK: (2) 1-3-006:007 and 012 (por.)

Thank you for the opportunity to comment on the submittal that was received by our staff on February 19, 2015. Documentation includes several copies of an early consultation request letter from the contracted consultant, Munekiyo and Hiraga, Inc. The letter explains that Executive Order 3304 (signed November 16, 1985) transferred the management and control of approximately 29 acres of State-owned land to the County of Maui for the *Hana Landfill*, formerly known as the "Hana Garbage Dump Site."

Parcel 012 lies within both the State Land Use "Agricultural" and "Conservation" districts. Currently, the County of Maui is in the process of extending the boundaries of the landfill site to add approximately 45.2 acres of adjacent land to resolve an encroachment of the current active landfill area and to provide an adequate buffer zone to surrounding lands. The additional lands will be transferred from the State to the County by Executive Order.

A search of our records indicates an archaeological inventory survey has not occurred. We previously recommended that an archaeological inventory survey be conducted on the subject parcels (*Log 2003.1285 Doc 0307CD49; Log 2003.2184 Doc 0310MK29; Log 2004.0785 Doc 0403MK02; Log 2007.2053 Doc 0807JP10, and Log 2012.2957 Doc 1301JP11*). Traditional Hawaiian agriculture and habitation sites in addition to human burials and ceremonial features are noted for the area. Previously documented sites in the vicinity include pre-Contact temporary and permanent habitation sites, burials, heiau, rock terraces, enclosures, rock mounds, modified rock outcrops, rock alignments, platforms, rock overhangs, walled cave shelters, as well as post-Contact historic properties related to plantation and ranching activities. Prior land alterations have occurred on some sections; however, there may be undisturbed areas within both parcels.

We cannot fully determine any potential impacts the proposed project may have to historic properties until an archaeological survey report has been reviewed and accepted by our division. We believe that **historic properties may be affected** by the proposed project, and recommend that an **archaeological inventory survey** be conducted. The archaeological survey shall be completed by a permitted contracted archaeological firm with the resulting report submitted to our office for review and approval pursuant to Hawai'i Administrative Rule §13-276. Once the archaeological report is accepted, appropriate mitigation measures, if needed, will be recommended.



DLNR Land Division  
March 6, 2015  
Page 2

Please contact Jenny Pickett at (808) 243-1285 or [Jenny.L.Pickett@hawaii.gov](mailto:Jenny.L.Pickett@hawaii.gov) if there are any questions or concerns regarding this memorandum.

cc:	County of Maui Department of Planning ( <a href="mailto:Planning@co.maui.hi.us">Planning@co.maui.hi.us</a> )	County of Maui Department of Public Works – DSA ( <a href="mailto:Rence.Segundo@co.maui.hi.us">Rence.Segundo@co.maui.hi.us</a> )	County of Maui Cultural Resources Commission ( <a href="mailto:Annalise.Kehler@co.maui.hi.us">Annalise.Kehler@co.maui.hi.us</a> )
	Mark Alexander Roy, AICP, Vice President Munekiyo Hiraga ( <a href="mailto:mark@mhplanning.com">mark@mhplanning.com</a> )		



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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Kevin E. Moore, Acting Land Administrator  
Land Division  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui (Log No: 2015.00536,  
Doc. No: 1503JP01)

Dear Mr. Moore:

Thank you for your letter, dated March 6, 2015, providing early consultation comments on the Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui, Department of Environmental Management, please be advised that archaeologist Erik Fredericksen of Xamanek Researches, LLC has followed up with the State Historic Preservation Division, Maui Office, to discuss applicable archaeological review processing requirements for this project. As a result of this coordination, an archaeological investigation will be carried out with subsurface testing around the perimeter of the Makai Hana Landfill boundary. The results of the archaeological investigation will be included in the Draft EA.

Kevin E. Moore, Acting Land Administrator  
July 22, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. We appreciate your input and a copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Erik Fredericksen, Xamanek Researches, LLC  
Morgan Davis, Lead Archaeologist, Maui Section

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DAVID Y. IGE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

February 25, 2015

MAR 05 2015

FORD N. FUCHIGAMI  
DIRECTOR

Deputy Directors  
JADE T. BUTAY  
ROSS M. HIGASHI  
EDWIN H. SNIFFEN  
DARRELL T. YOUNG

IN REPLY REFER TO:

STP 8.1762

Mr. Mich Hirano, AICP  
Senior Advisor  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Hirano:

Subject: Makai Hana Landfill Clean-up and Closure  
Early Consultation for Environmental Assessment  
Hana, Maui, Hawaii  
TMK: (2) 1-3-006:012 (por.)

The subject project is not expected to significantly impact the State highway facility. However, the developer is required to obtain a permit from Department of Transportation (DOT) Highways Division, Maui District Office for the transport of oversized and/or overweight materials and equipment on State highway facilities.

If there are any questions, please contact Mr. Norren Kato of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Sincerely,

A handwritten signature in black ink, appearing to read "Ford N. Fuchigami", is written over a horizontal line.

FORD N. FUCHIGAMI  
Director of Transportation

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Ford N. Fuchigami, Director  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813-5097

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui (STP 8.1762)

Dear Mr. Fuchigami:

Thank you for your letter, dated February 25, 2015, providing early consultation comments on the Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui, Department of Environmental Management (DEM), please be advised that transport of oversized and/or overweight materials and equipment on State Highways is not anticipated. Construction activity will be within the Hana Landfill boundaries. However, scrap metal will be hauled out and transported to Kahului utilizing State Highway facilities. A permit from the Department of Transportation Highways Division, Maui District Office will be obtained, as necessary.

Ford N. Fuchigami, Director  
July 22, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. We appreciate your input and a copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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DAVID Y. IGE  
GOVERNOR OF HAWAII



FEB 17 2015

JESSICA E. WOOLEY  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Department of Health  
235 South Beretania Street, Suite 702  
Honolulu, Hawaii 96813  
Telephone (808) 586-4185  
Facsimile (808) 586-4186  
Email: [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)

File No.  
OEQC 15-003

February 13, 2015

Munekiyō & Hiraga, Inc.  
Attn: Mich Hirano, AICP, Senior Advisor  
305 High Street, Suite 104  
Wailuku, HI 96793

Dear Mr. Hirano,

SUBJECT: Early Consultation Request for the Proposed Clean-up and Closure of the Makai Hana Landfill, Hana, Maui

The Office of Environmental Quality Control has reviewed the brief information contained in your February 5, 2015 letter about the subject project, and offers the following comments for your consideration.

1. We note that the subject project is located within the State Conservation District, and acknowledge your coordination with the Office of Conservation and Coastal Lands. In the Draft Environmental Assessment (EA) for the project, please indicate that pursuant to Chapter 343 Hawaii Revised Statutes and Section 11-200-6, Hawaii Administrative Rules, the project's use of Conservation District lands is also a trigger for the preparation of the EA.
2. As an Agency Action by the Department of Environmental Management (DEM), please be aware that the proper terminology and flow path for this project is such that the DEM is the "proposing and determination agency" in this case, rather than an "approving agency" as noted in your letter. Accordingly, the proposing agency initiates the EA process, makes the initial determination on the need for an EA, prepares the EA and makes the determination based on the project's Final EA whether to require a full Environmental Impact Statement (EIS) if the impacts may be significant. In the event that the proposing agency makes such a determination, then the County Mayor, as the "accepting authority," would determine the acceptability of the subsequent Final EIS.

Thank you for the opportunity to comment. If there are any questions, please contact Mr. Tom Eisen of my staff at (808) 586-4185 or by electronic mail at [Thomas.Eisen@doh.hawaii.gov](mailto:Thomas.Eisen@doh.hawaii.gov).

Sincerely,

A handwritten signature in cursive script that reads "Jessica Wooley".

Jessica E. Wooley, Director  
Office of Environmental Quality Control

July 22, 2015

Jessica E. Wooley, Director  
Office of Environmental Quality Control  
Department of Health  
235 South Beretania Street, Suite 702  
Honolulu, Hawaii 96801

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui (OEQC 15-003)

Dear Ms. Wooley:

Thank you for your letter of February 13, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management (DEM) we offer the following information, which addresses your comments in the order listed in your letter:

1. We will note that the project's use of Conservation District lands is also a trigger for the preparation of the EA.
2. We will identify the DEM as the "proposing and determination agency" in the EA. Further, the Mayor of the County of Maui has designated DEM as the "accepting authority".



Jessica E. Wooley, Director  
July 22, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,



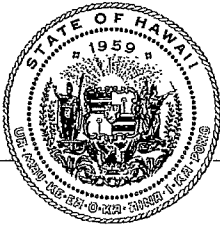
Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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MAR 02 2015



## OFFICE OF PLANNING STATE OF HAWAII

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846  
Fax: (808) 587-2824  
Web: <http://planning.hawaii.gov/>

DAVID Y. IGE  
GOVERNOR

LEO R. ASUNCION  
ACTING DIRECTOR  
OFFICE OF PLANNING

Ref. No. P-14666

February 27, 2015

Mr. Mich Hirano, AICP  
Senior Advisor  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Hirano:

Subject: Early Consultation Request for the Proposed Clean-Up and Closure of the  
Makai Hana Landfill, Hana, Maui; TMK: (2)1-3-006:012 (por) and  
(2)1-3-006:007 (por)

Thank you for the opportunity to provide comments on the early consultation request for the proposed clean-up and closure of the makai section of the Hana Landfill, transmitted to our office by letter dated February 5, 2015. It is our understanding that the Maui County, Department of Environmental Management (DEM) proposes to remove 90,000 cubic yards of waste material from the makai section of the Hana Landfill (Makai Hana Landfill) and transfer the material to a larger area located on the west side of the Waikoloa Road in Hana. The site of the Makai Hana Landfill will be excavated, recyclable and green material will be reused, and the remaining waste will be hauled to the larger site (mauka side) of Waikoloa Road for permanent disposal. The Makai Hana Landfill will then be sealed, decommissioned, graded, and vegetation will be put in place to mitigate soil erosion. Furthermore, DEM is in the process of extending the boundaries of the Hana Landfill to add approximately 45 acres of land to the Makai Hana Landfill site to provide a buffer zone to surrounding lands and resolve encroachment issues.

The Office of Planning (OP) has reviewed the transmitted material and have the following comments to offer:

1. OP provides technical assistance to state and county agencies in administering the statewide planning system in Hawaii Revised Statutes (HRS) Chapter 226, the Hawaii State Plan. The Hawaii State Plan provides goals, objectives, priorities, and priority guidelines for growth, development, and the allocation of resources throughout the State. The Hawaii State Plan includes diverse policies and objectives of state interest including but not limited to the economy, agriculture, the visitor industry, federal expenditure, the physical environment, facility systems, socio-cultural advancement, climate change adaptation, and sustainability.

The Draft Environmental Assessment (Draft EA) should include an analysis on the Hawaii State Plan, HRS Chapter 226, that addresses whether this project conforms or is in conflict with state and county plans, policies, and controls. The analysis should include a discussion on the project's ability to meet the objectives and policies listed in HRS Chapter 226.

2. OP is the lead agency for the Hawaii Coastal Zone Management Program. The coastal zone management area is defined as "all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the U.S. territorial sea" see HRS § 205A-1 (definition of "coastal zone management area").

The Draft EA should include an analysis of the proposed project's ability to meet the objectives and policies set forth in HRS § 205A-2. This analysis should be included in a section of the Draft EA that examines how this project conforms or is in conflict with state and county plans, policies, and controls. Where a conflict or inconsistency exists, the analysis must describe the extent to which the applicant has reconciled its proposed action with HRS § 205A-2. These objectives and policies include: recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection, and marine resources.

3. The Draft EA should provide a complete list of all federal, state, or county permits required for this landfill project. A listing of required permits will allow OP to verify the project's consistency with the plans, programs, and policy objectives that fall under our authority.
4. This landfill project lies within the Special Management Area (SMA) delineated by the County of Maui, Department of Planning. Please consult with said department on the procedures and requirements for addressing SMA regulations.
5. The transmitted material states that once removal of the waste material is removed from the Makai Hana Landfill, the site will be sealed, graded to reflect the original drainage patterns of the area, and vegetation will be placed on top to mitigate against erosion loss. The Draft EA should consider landscaping best management practices (BMP) to control stormwater runoff to nearby estuaries, watersheds, and the nearshore waters of Kainalimu and Hana Bay. Stormwater planting BMP's include: stormwater ponds, infiltration and sand filters, bioretention basins, open channels, and filter strips and buffers. These methods are some of the ways that vegetation and Low Impact Development concepts can be used to prevent stormwater from

Mr. Mich Hirano, AICP  
February 27, 2015  
Page 3

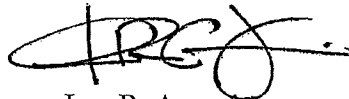
damaging the area's more fragile ecosystems. These methods are listed in the "Low Impact Development, A Practitioners Guide." Specifically please examine Section 3.6, pgs. 3-67 to 3-74 for further information. This guidance can be viewed or downloaded from the OP website at:

[http://files.hawaii.gov/dbedt/op/czm/initiative/lid/lid\\_guide\\_2006.pdf](http://files.hawaii.gov/dbedt/op/czm/initiative/lid/lid_guide_2006.pdf)

6. The transmitted material states that the County of Maui is in the process of extending the boundaries surrounding the Hana Landfill site to address encroachment concerns and provide a buffer area to surrounding area near the landfill. This parcel lies within the Agricultural District mauka of Waikoloa Road. The Draft EA should fully address the anticipated impacts of the expanded landfill area, including a detailed description of disposal plans, and conducting studies as needed to address archaeological, biological, environmental and operational impacts, and existing and required permits. This is necessary to avoid any segmentation concerns with the Draft EA.

If you have any questions regarding this comment letter, please contact Josh Hekeia of our office at 587-2845.

Sincerely,

A handwritten signature in black ink, appearing to read 'LRG', with a stylized flourish extending from the end.

Leo R. Asuncion  
Acting Director

July 22, 2015

Leo R. Asuncion, Jr. AICP, Acting Director  
Office of Planning  
State of Hawaii  
P.O. Box 2359  
Honolulu, Hawaii 96804

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui (Ref. No. P-14666)

Dear Mr. Asuncion:

Thank you for your letter of February 27, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui, Department of Environmental Management (DEM), we offer the following information in the order of your comments listed in your letter:

1. The Draft EA will include a discussion and analysis of the Hawaii State Plan, Hawaii Revised Statutes (HRS) Chapter 226.
2. The Draft EA will include an analysis of the objectives and policies set forth in HRS § 205A-2.
3. The Draft EA will include a list of all federal, state, and county permits required for the project.
4. Coordination has been carried out with the County of Maui, Department of Planning. They have advised that a Special Management Area Assessment will be required for the project.
5. The Draft EA will include Best Management Practices (BMPs), including landscaping and Low Impact Development considerations. The engineering consultant for the project has been advised to review the "Low Impact Development, A Practitioners Guide".

Leo R. Asuncion, Jr., AICP, Acting Director  
July 22, 2015  
Page 2

6. The Draft EA will include a description of the encroachment area of the Hana Landfill site. For your information, in coordination with the Department of Land and Natural Resources, a Final Environmental Assessment was processed for the encroachment area. The Final EA was published on November 8, 2007. As appropriate, studies are being prepared and will be included in the Draft EA.

Again, thank you for your participation in the Chapter 343, HRS review process. We appreciate your input and a copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

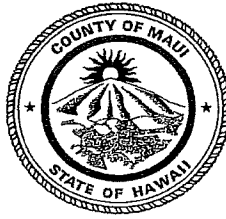
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MAR 25 2015

ALAN M. ARAKAWA  
Mayor

KYLE K. GINOZA, P.E.  
Director

MICHAEL M. MIYAMOTO  
Deputy Director



MICHAEL RATTE  
Solid Waste Division  
ERIC NAKAGAWA, P.E.  
Wastewater Reclamation Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**  
2050 MAIN STREET, SUITE 1C  
WAILUKU, MAUI, HAWAII 96793

March 20, 2015

Mr. Mich Hirano  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

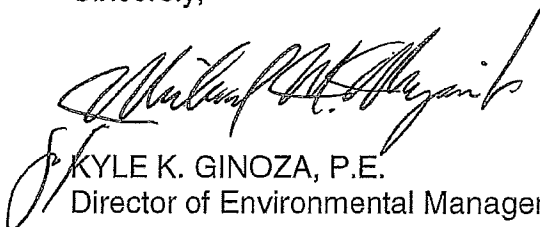
**SUBJECT: MAKAI HANA LANDFILL CLEAN-UP AND CLOSURE  
EARLY CONSULTATION  
TMK (2) 3-1-006:012 AND 007, HANA**

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:
  - a. None.
2. Wastewater Reclamation Division (WWRD) comments:
  - a. The County does not have a wastewater system in the area of the subject project.

If you have any questions regarding this memorandum, please contact Michael Miyamoto at 270-8230.

Sincerely,

  
KYLE K. GINOZA, P.E.  
Director of Environmental Management



**MUNEKIYO HIRAGA**

Planning, Project Management, Sustainable Solutions

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Kyle Ginoza, Director  
Department of Environmental Management  
2050 Main Street, Suite 1C  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Mr. Ginoza:

Thank you for your letter of March 20, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. We appreciate your letter of confirmation that the County does not have a wastewater system in the area.

A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

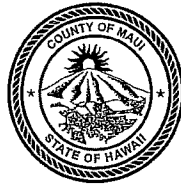
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Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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ALAN M. ARAKAWA  
MAYOR



FEB 20 2015  
JEFFREY A. MURRAY  
CHIEF

ROBERT M. SHIMADA  
DEPUTY CHIEF

**COUNTY OF MAUI**  
DEPARTMENT OF FIRE AND PUBLIC SAFETY  
FIRE PREVENTION BUREAU

313 MANEA PLACE + WAILUKU, HAWAII 96793  
(808) 244-9161 + FAX (808) 244-1363

**Date** : February 18, 2015

**To** : Munekiyo & Hiraga, Inc.  
Attn: Mich Hirano  
305 High Street, Suite 104  
Wailuku, HI 96793

**Subject** : Early Consultation Request for the Proposed Clean-up and  
Closure of the Makai Hana Landfill.  
Hana, Maui, Hawaii  
(2) 1-3-006:012 (por.) & 007

Dear Mich,

Thank you for allowing the Fire Prevention Bureau the opportunity to comment on the above said project. We have no comment at this time. We also have no objections pertaining to this project.

If there are any questions, please feel free to contact me by mail or at 808-244-9161 ext. 25.

Sincerely,

A handwritten signature in cursive script that reads "Kono Davis".

Kono Davis  
Lieutenant, Fire Prevention Bureau  
313 Manea Place  
Wailuku, HI 96793

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Kono Davis, Lieutenant  
Fire Prevention Bureau  
Department of Fire & Public Safety  
County of Maui  
313 Manea Place  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Lieutenant Davis:

Thank you for your letter of February 18, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management we appreciate your letter of confirmation that you have no objections to the project.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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DEPARTMENT OF  
**HOUSING AND HUMAN CONCERNS**  
COUNTY OF MAUI

FEB 13 2015

ALAN M. ARAKAWA  
Mayor

JO-ANN T. RIDAO  
Director

JAN SHISHIDO  
Deputy Director

---

2200 MAIN STREET • SUITE 546 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165  
MAILING ADDRESS: 200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • EMAIL: [director.hhc@mauicounty.gov](mailto:director.hhc@mauicounty.gov)

February 9, 2015

Mich Hirano, AICP, Senior Advisor  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Hirano:

**SUBJECT: Early Consultation Request for the Proposed Clean-up and  
Closure of the Makai Hana Landfill, Hana, Maui, Hawaii**

The Department has reviewed the request for Early Consultation for the above subject project. Based on this review, the department has no comments to offer regarding the subject.

Sincerely,

A handwritten signature in black ink, appearing to read "Jo-Ann T. Ridao", is written over a horizontal line.

JO-ANN T. RIDAO

Director of Housing and Human Concerns

July 22, 2015

Jan Shishido, Deputy Director  
Department of Housing and Human Concerns  
2200 Main Street, Suite 546  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Ms Shishido:

Thank you for your department's letter of February 9, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management we appreciate your letter of confirmation that you have no comments to offer.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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ALAN M. ARAKAWA  
Mayor



FEB 26 2015

KA'ALA BUENCONSEJO  
Director

BRIANNE L. SAVAGE  
Deputy Director

**DEPARTMENT OF PARKS & RECREATION**

700 Hali'a Nakoia Street, Unit 2, Wailuku, Hawaii 96793

(808) 270-7230  
FAX (808) 270-7934

February 19, 2015

Mr. Mich Hirano, AICP, Senior Associate  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, HI 96793

Dear Mr. Hirano:

**SUBJECT: Early Consultation Request for the Proposed Clean-up and Closure  
of the Makai Hana Landfill, Hana, Maui, Hawaii**

Thank you for the opportunity to review and comment on the proposed clean-up and closure of the Makai Hana Landfill. The Department has no comment at this time, but would like to review the project as it develops. In accordance with the requirements of Chapter 343, Hawaii Revised Statutes (HRS) and Section 11-2-00-6, Hawaii Administrative Rules (HAR) please provide a copy of the Draft Environmental Assessment (EA).

Feel free to contact me or Robert Halvorson, Chief of Planning and Development, at 270-7931, should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ka'ala Buenconsejo", is written over a horizontal line.

KA'ALA BUENCONSEJO  
Director of Parks and Recreation

c: Robert Halvorson, Chief of Planning and Development

KB:RH:do



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Ka'ala Buenconsejo, Director  
Department of Parks and Recreation  
County of Maui  
700 Halia Nakoa Street, Unit 2  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

---

Dear Mr. Buenconsejo:

Thank you for your letter of February 19, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management we appreciate your letter of confirmation that you have no comments at this time.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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ALAN M. ARAKAWA  
Mayor

WILLIAM R. SPENCE  
Director

MICHELE CHOUTEAU McLEAN  
Deputy Director



MAR 03 2015

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

March 2, 2015

Mr. Mark Alexander Roy, Vice-President  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Roy:

**SUBJECT: EARLY CONSULTATION REQUEST FOR THE PROPOSED  
CLEAN-UP AND CLOSURE OF THE MAKAI HANA LANDFILL, HANA,  
MAUI, HAWAII; TMK: (2) 1-3-006:012 (RFC 2015/0014)**

The Department of Planning (Department) is in receipt of your request as noted above. The Department has the following comments on the subject matter:

1. The makai dumpsite (Parcel 12) fill is being moved to an existing mauka landfill site known as "Parcel 7." Will this be a permanent move or will the fill have to be relocated again in the future?
2. The proposed action will require a Special Management Area Assessment.
3. FYI: The landfill is operating under the following existing permits – all will expire on February 28, 2018: (SUP1 2007/0002, CUP 2007/0001, & SM1 2007/0001).
4. The Department would appreciate the opportunity to review the Draft Environmental Assessment when it is available.

Thank you for the opportunity to comment on this matter. If additional clarification is required, please contact Staff Planner Paul Fasi at [paul.fasi@mauicounty.gov](mailto:paul.fasi@mauicounty.gov) or by phone at (808) 270-7814.

Sincerely,

A handwritten signature in black ink, appearing to read "Clayton I. Yoshida".

CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

for WILLIAM SPENCE  
Planning Director

Mr. Mark Alexander Roy, Vice-President  
March 2, 2015  
Page 2

xc: John S. Rapacz, Planning Program Administrator (PDF)  
Paul F. Fasi, Staff Planner (PDF)  
Development Services Administration  
Project File  
General File

WRS:CIY:PFF:nt  
K:\WP\_DOCS\PLANNING\RFC\2015\0014\_HanaLandfill\LTR1.doc



July 22, 2015

William Spence, Director  
Department of Planning  
County of Maui  
2200 Main Street, Suite 315  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Mr. Spence:

Thank you for your letter of March 2, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui, Department of Environmental Management (DEM), we offer the following information in the order of your comments listed in your letter:

1. The Makai Hana Landfill clean up and removal action is a permanent move and will not require further relocation in the future.
2. Upon completion of the EA, a Special Management Area Assessment application will be filed with the Department of Planning. As such, the Draft EA will include a list of all federal, state, and county permits required for the project.
3. The County of Maui, DEM confirms that time extensions for the landfill's existing permits will be filed prior to the February 28, 2018 expiration date.
4. The Draft EA will be transmitted to the Department of Planning for review and comment.

William Spence, Director  
July 22, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. We appreciate your input and a copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,

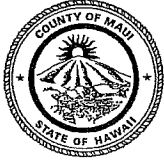


Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

K:\DATA\A-MEHR\HanaSolidWaste\ECL Response Letters\Planning.eclresponse.letter.doc



ALAN M. ARAKAWA  
MAYOR

OUR REFERENCE

YOUR REFERENCE

# POLICE DEPARTMENT

## COUNTY OF MAUI

55 MAHALANI STREET  
WAILUKU, HAWAII 96793  
(808) 244-6400  
FAX (808) 244-6411

FEB 26 2015



TIVOLI S. FAAUMU  
CHIEF OF POLICE

DEAN M. RICKARD  
DEPUTY CHIEF OF POLICE

February 20, 2015

Mr. Mark Alexander Roy, AICP  
Vice President  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, HI 96793

Dear Mr. Roy:

SUBJECT: Early Consultation Request for the Proposed Clean-up and Closure of  
the Makai Hana Landfill

Thank you for your letter of February 5, 2015, requesting comments on the above  
subject.

We have reviewed the information submitted and have no comments or  
recommendations to make at this time. Thank you for giving us the opportunity to  
comment on this project.

Very truly yours,

Acting Assistant Chief Clarence Kenui  
for: Tivoli S. Faaumu  
Chief of Police

c: William Spence, Planning Department



**MUNEKIYO HIRAGA**

Planning, Project Management, Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Chief Tivoli S. Faaumu  
Police Department  
County of Maui  
55 Mahalani Street  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Chief Faaumu:

Thank you for your letter of February 20, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management we appreciate your letter of confirmation that you have no comments at this time.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrzarin, A-MEHR

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MAR 12 2015

ALAN M. ARAKAWA  
Mayor

DAVID C. GOODE  
Director

ROWENA M. DAGDAG-ANDAYA  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955



COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS**

200 SOUTH HIGH STREET, ROOM NO. 434  
WAILUKU, MAUI, HAWAII 96793

GLEN A. UENO, P.E., P.L.S.  
Development Services Administration

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

March 5, 2015

MUNEKIYO HIRAGA  
305 High Street, Suite 104  
Wailuku, Maui, Hawaii 96793

ATTENTION: Mich Hirano, AICP, Senior Advisor

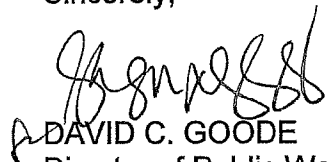
Dear Mr. Hirano:

**SUBJECT: EARLY CONSULTATION REQUEST FOR THE  
PROPOSED CLEAN-UP AND CLOSURE OF THE MAKAI  
HANA LANDFILL, HANA, MAUI, HAWAII**

We reviewed your early consultation request and have no comments at this time.

Please call Rowena M. Dagdag-Andaya at 270-7845 if you have any questions regarding this letter.

Sincerely,

  
DAVID C. GOODE  
Director of Public Works

DCG:RMDA:da  
xc: Highways Division  
Engineering Division  
S:\DSA\Engr\CZM\Draft Comments\13006012\_makai\_hana\_landfill\_ec.wpd

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

David C. Goode, Director  
Department of Public Works  
County of Maui  
200 S. High Street, Room No. 434  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Mr. Goode:

Thank you for your letter of March 5, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management we appreciate your letter of confirmation that you have no comments at this time.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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ALAN M. ARAKAWA  
Mayor



FEB 20 2015

DAVID TAYLOR, P.E.  
Director

PAUL J. MEYER  
Deputy Director

**DEPARTMENT OF WATER SUPPLY**  
**COUNTY OF MAUI**  
200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793-2155  
[www.mauewater.org](http://www.mauewater.org)

February 11, 2015

Munekiyo & Hiraga, Inc.  
Attn: Mich Hirano, AICP, Senior Advisor  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Hirano:

RE: Early Consultation Request for the Proposed Clean-up and Closure of the  
Makai Hana Landfill, Hana, Maui, Hawaii

Thank you for the opportunity to provide the following comments on the  
referenced project.

The project will not negatively impact the Department of Water Supply's East  
Maui Water System.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dave Taylor".

Dave Taylor, P.E., Director  
ayi

c: DWS Engineering Division  
DWS Water Resources & Planning Division files

*"By Water All Things Find Life"*



Michael T. Munekiyo  
PRESIDENT  
Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT  
Mark Alexander Roy  
VICE PRESIDENT  
Tessa Munekiyo Ng  
VICE PRESIDENT

Mitsuru "Mich" Hirano  
SENIOR ADVISOR

July 22, 2015

Dave Taylor, P.E., Director  
Department of Water Supply  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Letter for the Proposed Clean-Up and Closure  
for the Makai Hana Landfill, Hana, Maui

Dear Mr. Taylor:

Thank you for your letter of February 11, 2015 responding to our request for early consultation in preparation of a Draft Environmental Assessment (EA) for the proposed Makai Hana Landfill project. On behalf of the County of Maui Department of Environmental Management, we appreciate your confirmation that the project will not negatively impact the Department of Water Supply's East Maui Water System.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter will be included in the Draft EA. A copy of the Draft EA will be sent to your office for review and comment. In the meantime, if there are any questions or if additional information is needed, please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

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**X. PARTIES CONSULTED  
DURING THE 30-DAY  
COMMENT PERIOD FOR THE  
DRAFT ENVIRONMENTAL  
ASSESSMENT; LETTERS  
RECEIVED AND RESPONSES  
TO SUBSTANTIVE  
COMMENTS**

## **X. PARTIES CONSULTED DURING THE 30-DAY COMMENT PERIOD FOR THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS**

The following list of agencies, organizations, and individuals were consulted during the 30-day comment period for the Draft Environmental Assessment (EA) that was filed and published in the Office of Environmental Quality Control's *The Environmental Notice* on August 8, 2015. The 30-day public comment period for the Draft EA ended on September 8, 2015. The following agencies, organizations, and individuals were provided with a copy of the Draft EA for review and comment. This Chapter includes comments received during the 30-day public comment period, along with responses to substantive comments.

### **FEDERAL AGENCIES**

- |   |   |
|---|---|
| 1. Ranae Ganske-Cerizo, Soil Conservationist<br>Natural Resources Conservation Service<br><b>U.S. Department of Agriculture</b><br>77 Hookele Street, Suite 202<br>Kahului, Hawai'i 96732       | 5. Scott Enright, Chair<br><b>Department of Agriculture</b><br>1428 South King Street<br>Honolulu, Hawai'i 96814-2512   |
| 2. Shelly Lynch, Chief, Regulatory Branch<br><b>U.S. Department of the Army</b><br>U.S. Army Engineer District, Honolulu<br>Regulatory Branch, Building 230<br>Fort Shafter, Hawai'i 96858-5440 | 6. Luis P. Salaveria, Director<br>State of Hawai'i<br><b>Department of Business, Economic Development &amp; Tourism</b><br>P.O. Box 2359<br>Honolulu, Hawai'i 96804   |
| 3. Kristi Young, Acting Field Supervisor<br><b>U. S. Fish and Wildlife Service</b><br>300 Ala Moana Blvd., Rm. 3-122<br>Box 50088<br>Honolulu, Hawai'i 96813                                    | 7. Mark Glick, Energy Administrator<br>State of Hawai'i<br><b>Department of Business, Economic Development &amp; Tourism</b><br>Hawaii State Energy Office<br>235 S. Beretania Street, 5 <sup>th</sup> Floor<br>Honolulu, Hawai'i 96813 |
|   | 8. Virginia "Ginny" Pressler, M.D., MBA, FACS, Director<br>State of Hawai'i<br><b>Department of Health</b><br>919 Ala Moana Blvd., Room 300<br>Honolulu, Hawai'i 96814  |

### **STATE AGENCIES**

4. Douglas G. Murdock, Comptroller  
**Department of Accounting and General Services**  
1151 Punchbowl Street, #426  
Honolulu, Hawai'i 96813

9. Alec Wong, P.E., Chief  
Clean Water Branch  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
  10. Patti Kitkowski  
State of Hawai'i  
**Department of Health**  
Maui Sanitation Branch  
54 South High Street, Room 300  
Wailuku, Hawai'i 96793
  11. Laura McIntyre, AICP  
Environmental Planning Office  
**Department of Health**  
919 Ala Moana Blvd., Suite 312  
Honolulu, Hawai'i 96814
  12. Lene Ichinotsubo  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Suite 212  
Honolulu, Hawai'i 96814
  13. Suzanne Case, Chairperson  
State of Hawai'i  
**Department of Land and Natural Resources**  
P. O. Box 621  
Honolulu, Hawai'i 96809
  14. Alan Downer, Administrator  
State of Hawai'i  
Department of Land and Natural Resources  
**State Historic Preservation Division**  
601 Kamokila Blvd., Room 555  
Kapolei, Hawai'i 96707
  15. Morgan Davis  
State of Hawai'i  
Department of Land and Natural Resources  
**State Historic Preservation Division**  
130 Mahalani Street  
Wailuku, Hawai'i 96793
  16. Ford Fuchigami, Director  
State of Hawai'i  
**Department of Transportation**  
869 Punchbowl Street  
Honolulu, Hawai'i 96813
  17. Brigadier General Arthur "Joe"  
Logan, Adjutant General  
**Hawai'i State Civil Defense**  
3949 Diamond Head Road  
Honolulu, Hawai'i 96813-4495
  18. Jobie Masagatani, Director  
**Hawai'ian Home Lands Commission**  
P.O. Box 1879  
Honolulu, Hawai'i 96805
  19. Jessica Wooley, Director  
**Office of Environmental Quality Control**  
235 S. Beretania Street, Suite 702  
Honolulu, Hawai'i 96813
  20. Dr. Kamana'opono Crabbe, Chief  
Executive Officer  
**Office of Hawai'ian Affairs**  
560 North Nimitz Highway, Suite 200  
Honolulu, Hawai'i 96817
  21. Leo R. Asuncion, Jr., AICP, Acting  
Director  
State of Hawai'i  
**Office of Planning**  
P. O. Box 2359  
Honolulu, Hawai'i 96804
  22. Dan Orodenker, Executive Officer  
State of Hawai'i  
**State Land Use Commission**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
  23. University of Hawai'i at Manoa  
Environmental Center  
2500 Dole Street, Krauss Annex 19  
Honolulu, Hawai'i 96822
- COUNTY AGENCIES**
24. **Mayor Alan Arakawa**  
County of Maui  
200 South High Street  
Wailuku, Hawai'i 96793
  25. Teena Rasmussen  
County of Maui  
**Office of Economic Development**  
2200 Main Street, Suite 305  
Wailuku, Hawai'i 96793

26. Anna Foust  
**Maui Civil Defense Agency**  
200 South High Street  
Wailuku, Hawai'i 96793
  27. Jeffrey A. Murray, Chief  
County of Maui  
**Department of Fire and Public Safety**  
200 Dairy Road  
Kahului, Hawai'i 96732
  28. Carol Reiman, Director  
County of Maui  
**Department of Housing and Human Concerns**  
One Main Plaza  
2200 Main Street, Suite 546  
Wailuku, Hawai'i 96793
  29. Ka'ala Buenconsejo, Director  
County of Maui  
**Department of Parks and Recreation**  
700 Halia Nako Street, Unit 2  
Wailuku, Hawai'i 96793
  30. William Spence, Director  
County of Maui  
**Department of Planning**  
2200 Main Street, Suite 315  
Wailuku, Hawai'i 96793
  31. Tivoli Faaumu, Chief  
County of Maui  
**Police Department**  
55 Mahalani Street  
Wailuku, Hawai'i 96793
  32. David Goode, Director  
County of Maui  
**Department of Public Works**  
200 South High Street  
Wailuku, Hawai'i 96793
  33. Jo Anne Johnson Winer, Director  
County of Maui  
**Department of Transportation**  
200 South High Street  
Wailuku, Hawai'i 96793
  34. David Taylor, Director  
County of Maui  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawai'i 96793
  35. Honorable Robert Carroll  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
  36. Honorable Michael White, Council  
Chair  
Maui County Council  
200 South High Street  
Wailuku, Hawai'i 96793
- OTHER**
37. Mathew McNeff  
**Maui Electric Company, Ltd.**  
P.O. Box 398  
Kahului, Hawai'i 96733
  38. **Hawaiian Telcom**  
60 South Church Street  
Wailuku, Hawai'i 96793
  39. John Kahalehoe  
**Hāna Community Association**  
P. O. Box 471  
Hāna, Hawai'i 96713
  40. Librarian  
**Hāna Public Library**  
4111 Hāna Highway  
Hāna, Hawai'i 96713
  41. Librarian  
**Kahului Public Library**  
90 School Street  
Kahului, Hawai'i 96732
  42. **Maui News**  
100 Mahalani Street  
Wailuku, Hawai'i 96793
  43. John Blumer-Buell  
P.O. Box 787  
Hāna, Hawai'i 96713



RECEIVED  
DEPARTMENT OF THE ARMY  
HONOLULU DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
FORT SHAFTER, HAWAII 96858-5440  
2015 NOV -4 AM 11:09

October 30, 2015

COUNTY OF MAUI  
DEPT. OF ENVIRONMENTAL MGMT.

SUBJECT: Request for Comments and Permit Determination for Makai Hana Landfill Clean Up and Closure Project, Hana, Island of Maui, Hawaii, DA File No. POH-2015-00186

☐ SCAN

Kyle K. Ginoza, P.E.  
County of Maui Dept. of Environmental Management  
2050 Main Street, Suite 1C  
Wailuku, Maui, Hawaii 96793

DEPT. OF  
ENVIRONMENTAL  
MANAGEMENT

	INFO	ACTION	COPY	FILE
DIRECTOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DEPUTY DIR.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERS.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WWR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SW	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SECTY.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dear Mr. Ginoza:

The U.S. Army Corps of Engineers, Honolulu District (Corps), is in receipt of your letter dated July 22, 2015 for the Makai Hana Landfill Clean Up and Closure Project located Hana, Island of Maui, Hawaii. Your project has been assigned Department of the Army (DA) file number POH-2015-00186. Please reference this number in all future correspondence concerning this determination. The project area reviewed by the Corps and addressed in this letter and accompanying documentation is shown in Enclosure 1.

We have completed review of your submittal pursuant to Section 404 of the Clean Water Act (Section 404) and Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 404 requires authorization prior to the discharge and/or placement of dredged or fill material into waters of the U.S., including adjacent wetlands. Section 10 requires authorization prior to installing structures or conducting work in, over, under, and affecting navigable waters.

Based on our review of your submittal, we have preliminarily determined that the Kawaipapa Stream may be a water of the U.S. under the regulatory jurisdiction of the Corps and may have adjacent wetlands. In addition, the Draft Environmental Assessment identifies in Section 6(a) and (b) that there are wet, lowland forests in the project area, potentially indicating forested wetlands. In accordance with Section 404, a Department of the Army (DA) permit will be required for any activity resulting in the discharge and/or placement of dredged or fill material into the proposed project area.

Although this determination provides an indication of the presence of waters of the U.S., this determination does not finalize the wetland boundary. Additional coordination to schedule a pre-application meeting with our office is recommended. In the event an application is submitted for work within jurisdictional areas, a wetland delineation will need to be prepared and submitted to this office.

Thank you for your cooperation with the Honolulu District Regulatory Program.

Should you have any questions related to this determination, please contact this office at 808-835-4303 or via e-mail at CEPOH-RO@usace.army.mil. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Office by accessing our web-based customer survey form at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0).

Sincerely,

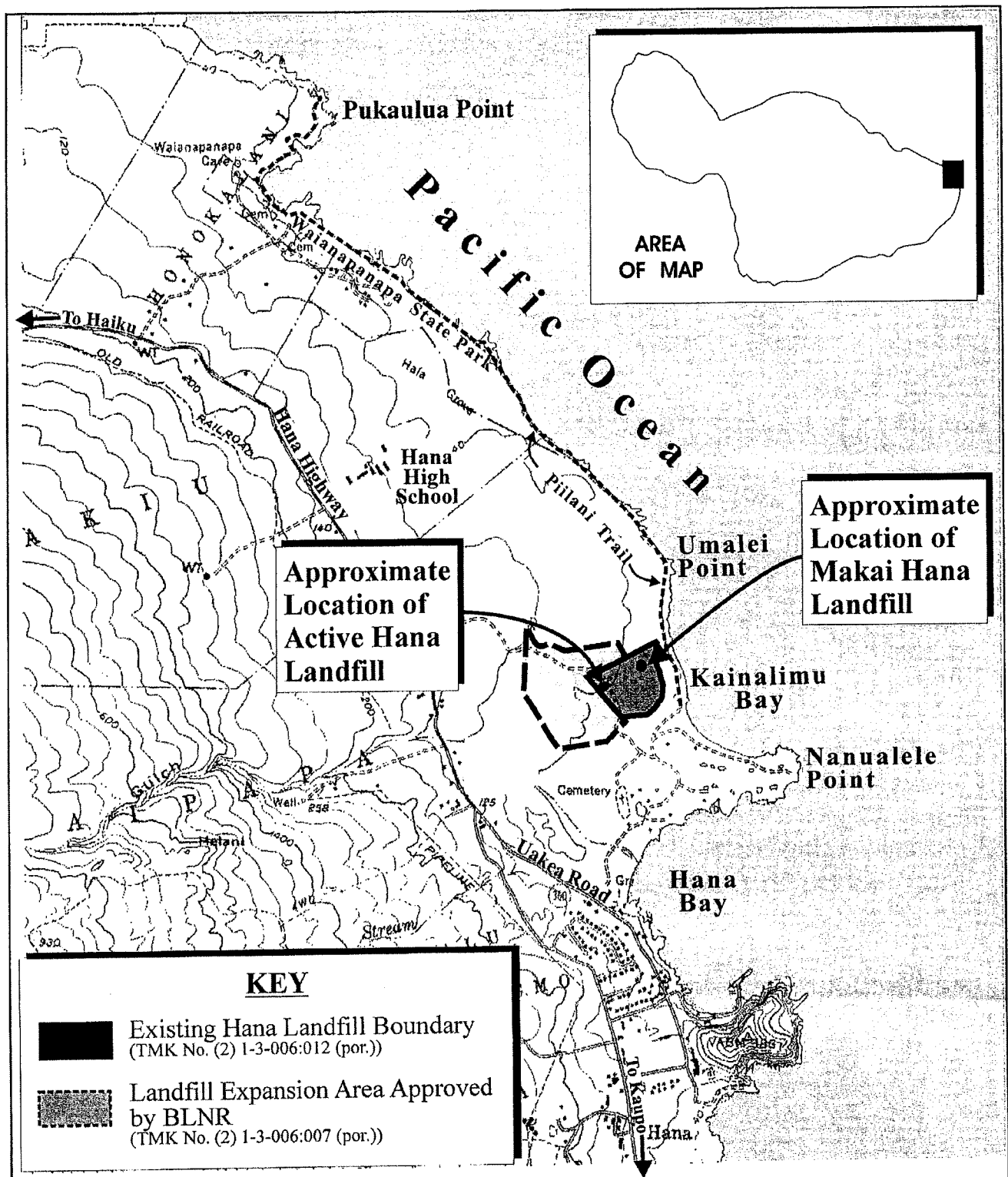


Michelle R. Lynch  
Chief, Regulatory Office

Enclosure(s)

cc:

City and County of Maui (Elain Baker)




**Figure 1** Proposed Makai Hana Landfill  
Clean-Up and Closure  
Regional Location Map

Prepared for: County of Maui, Department of  
Environmental Management


**MUNEKIYO HIRAGA**

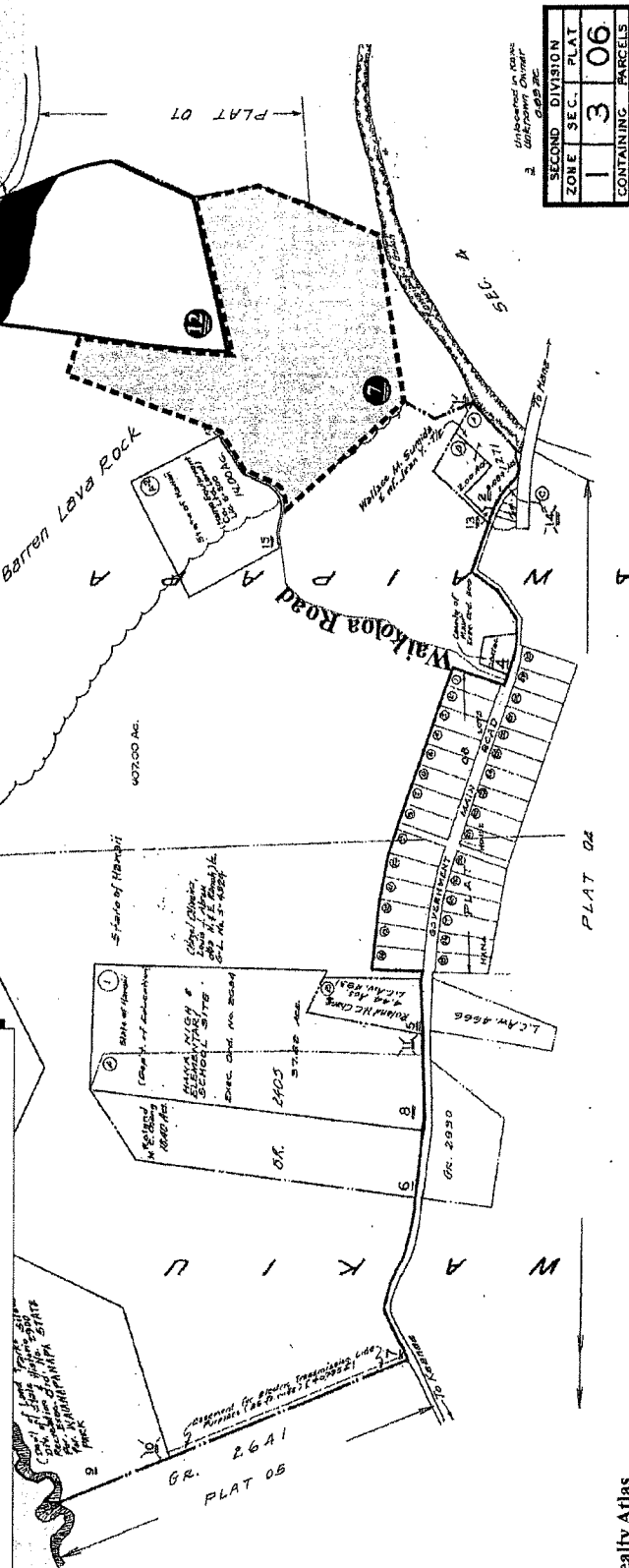
A-MEHR\HanaSolidWaste\Draft EA\Regional

# KEY

 Existing Hana Landfill Boundary  
(TMK No. (2) 1-3-006:012 (por.))

 State-Owned Portion of  
(TMK No. (2) 1-3-006:012 (por.))

 Landfill Expansion Area Approved  
by BLNR  
(TMK No. (2) 1-3-006:007 (por.))



Source: Realty Atlas

**Figure 2 Proposed Makai Hana Landfill Clean-Up and Closure**  
Site Location Map

NOT TO SCALE

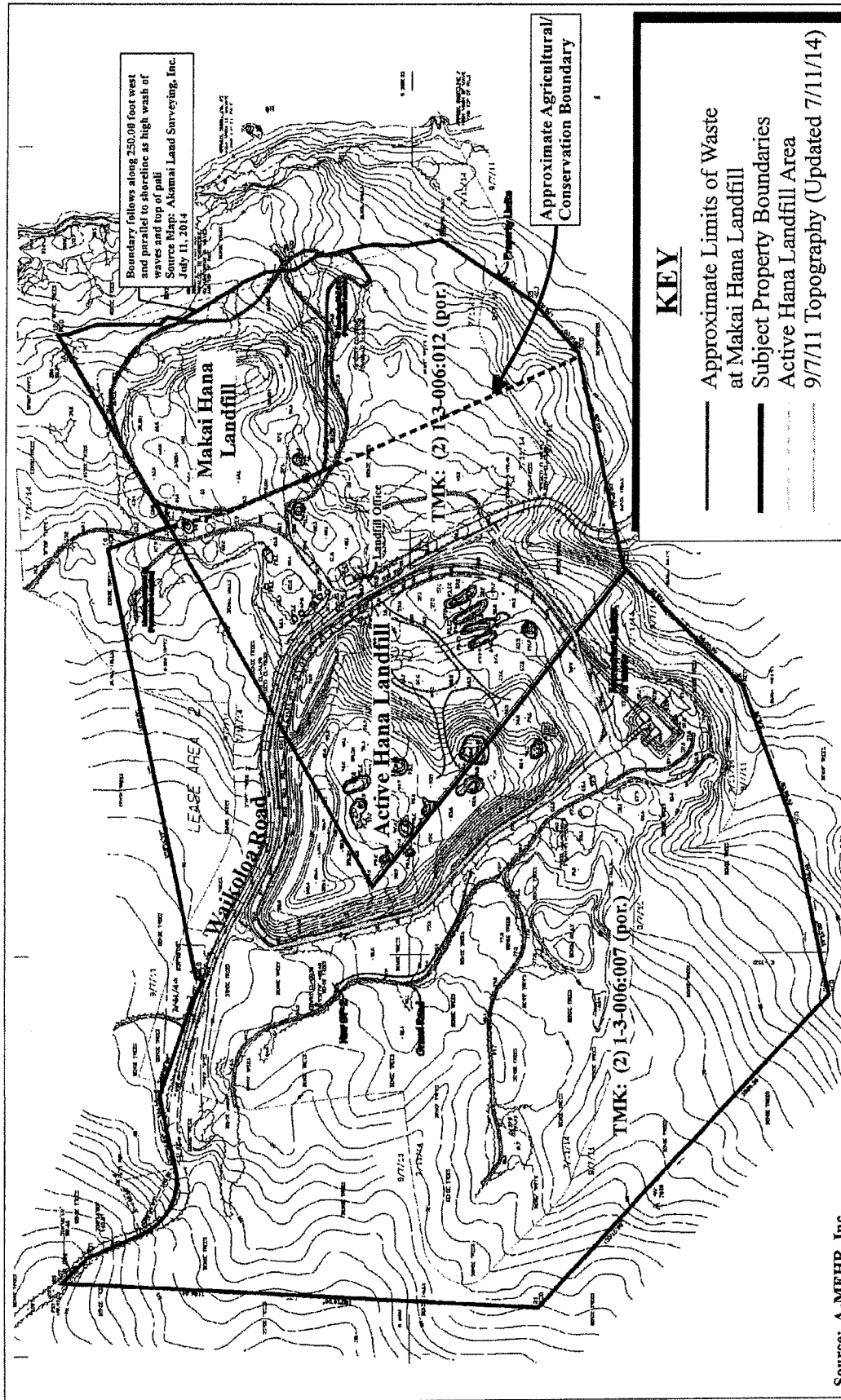


Prepared for: County of Maui, Department of  
Environmental Management



A-MEHR-HanaSolidWasteDraft EA Site Location





**Figure 3 Proposed Makai Hana Landfill Clean-Up and Closure Site Plan**

NOT TO SCALE



Prepared for: County of Maui, Department of Environmental Management



MUNEKIYO HIRAGA

A-MEHR/HanaSolid/Waste/Draft EA Site Plan



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

December 23, 2015

Michelle R. Lynch, Chief  
Regulatory Branch  
Department of the Army  
U.S. Army Corps of Engineers  
Ft. Shafter, Hawai'i 96858-5440

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i (POH-2015-00186)

Dear Ms. Lynch:

Thank you for your letter of October 30, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management (DEM), we would like to provide further clarification regarding the project site. Kaiwapapa Stream is located southwest and outside of the Hāna Landfill property as identified on the attached figure. See **Exhibit "1"**. Further, an overlay of known wetlands in the Hāna region (based on the National Wetlands Inventory) indicates wetlands are located along some coastal properties south of the Hāna Landfill property (near Hāna Town) but not within the project area. Refer to **Exhibit "1"**. Also, the lowland non-native species forest areas noted in your letter are located around the outside of the cleared portions of the Hāna Landfill site. We are providing photographs of the Hāna Landfill site which give a visual indication of the land. See **Exhibit "2"**. It is noted that there will be no disturbance of these lowland forest lands occurring as a result of the proposed Makai Hāna Landfill Clean-Up and Closure Project.

As such, we are writing to you today to respectfully request a determination that the proposed Makai Hāna Landfill Clean Up and Closure project does not impact any waters of the U.S. or navigable waters and that a Department of Army permit is not required for the project.

Michelle R. Lynch, Chief  
December 23, 2015  
Page 2

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

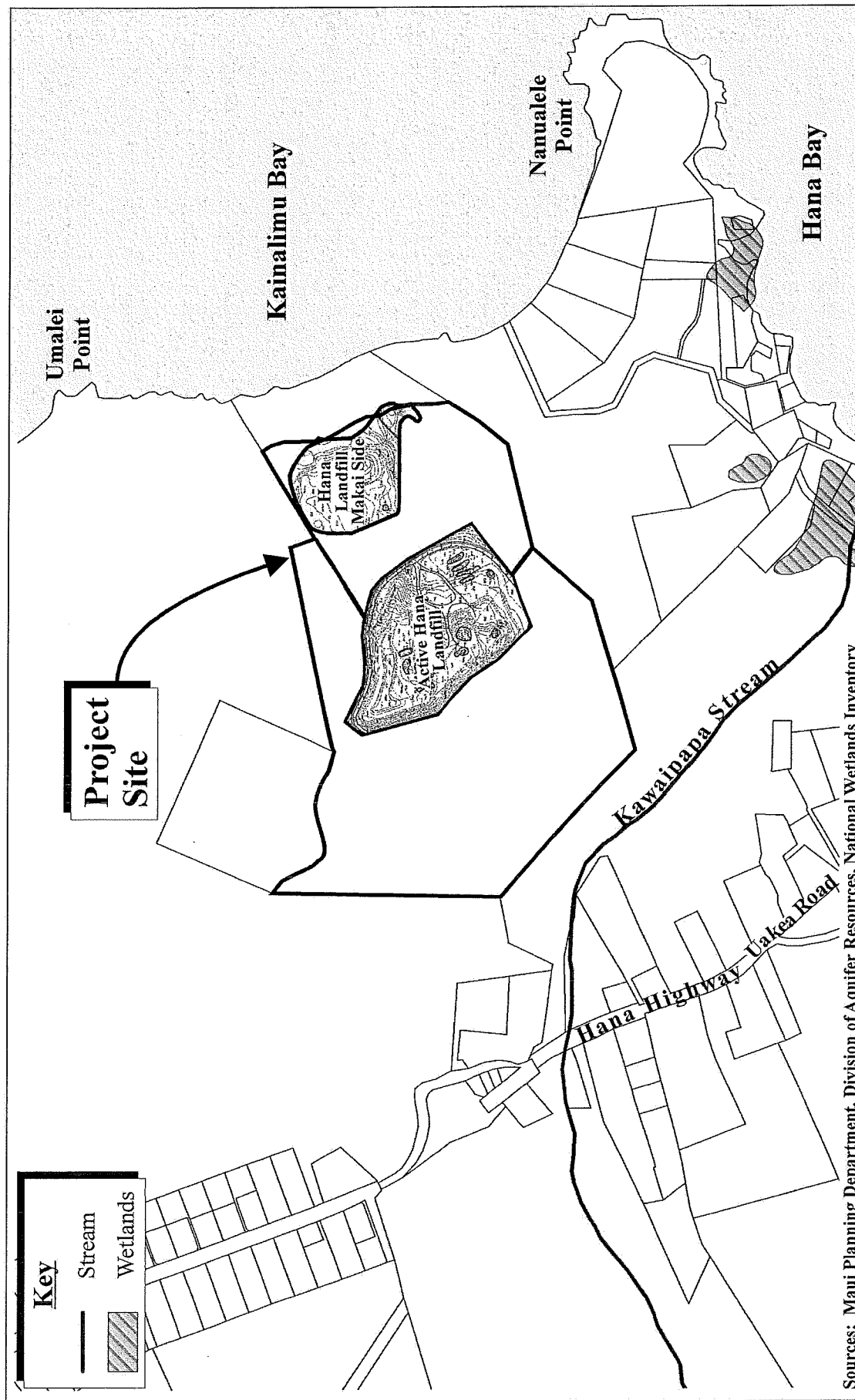
CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

K:\DATA\A-MEHR\HanaSolidWaste\Draft EA\DEA response letters\Army.response letter.doc

## **EXHIBIT 1.**

### **Kawaipapa Stream and Wetland Map**



Sources: Maui Planning Department, Division of Aquifer Resources, National Wetlands Inventory

## Proposed Makai Hana Landfill Clean-Up and Closure

### Kawaiapa Stream and Wetland Map

NOT TO SCALE



Prepared for: County of Maui, Department of Environmental Management

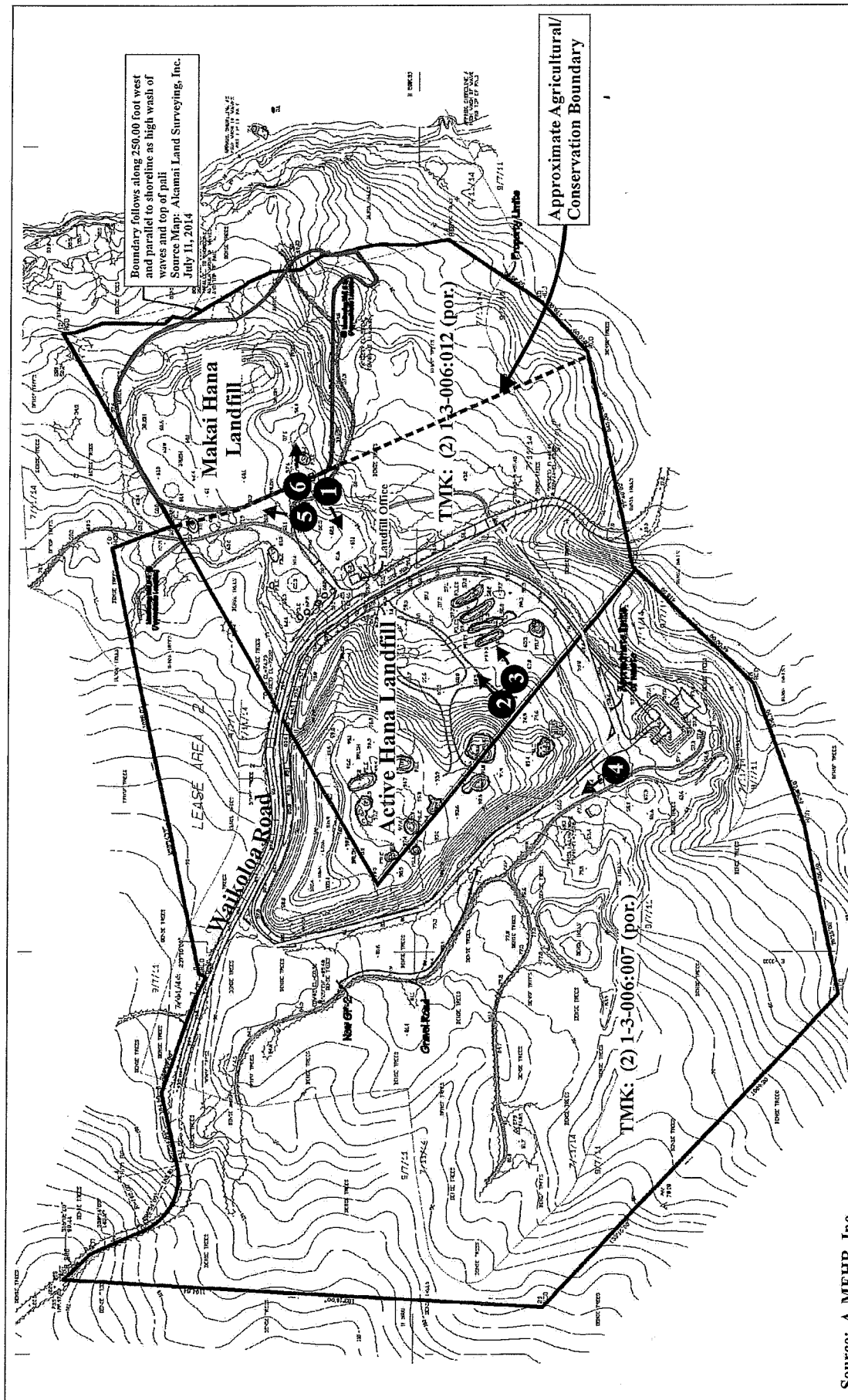


MUNEKIYO HIRAGA

A-MEHR/HanaSolidWaste/Kawaiapa Stream and Wetland

**EXHIBIT 2.**

**Photographs of Hāna Landfill**



# Proposed Makai Hana Landfill Clean-Up and Closure Photographic Reference Map

NOT TO SCALE



Prepared for: County of Maui, Department of Environmental Management

**MUNEKIYO HIRAGA**

A-MEHR/HanaSolidWasteDraft EA/Photographic Reference Map



**Photograph No. 1: Facing Hana Landfill Office Area**



**Photograph No. 2: Facing Northeast, Active Portion of Hana Landfill**





**Photograph 3: Facing East From Active Portion of Hana Landfill  
Looking Toward Office Area**



**Photograph 4: Facing Northwest, Active Portion of Hana Landfill During  
Dry Conditions**

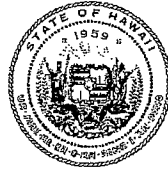


**Photograph 5: Facing North, Inactive Makai Hana Landfill Area Marked by White Poles**



**Photograph 6: Facing East, Area Surrounding Inactive Hana Landfill Area**

DAVID Y. IGE  
GOVERNOR



SEP 11 2015

DOUGLAS MURDOCK  
Comptroller

AUDREY HIDANO  
Deputy Comptroller

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

SEP - 9 2015

(P)1235.5

Ms. Elaine Baker, Solid Waste Division  
Department of Environmental Management  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, Hawaii 96793


Dear Ms. Baker:

Subject: Draft Environmental Assessment for the Proposed Makai Hana  
Landfill Clean-Up and Closure Project, Hana, Maui, Hawaii  
TMK: (2) 1-3-006: por 012

Thank you for the opportunity to comment on the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities and we have no comments to offer at this time as

If you have any questions, your staff may contact Ms. Dora Choy of the Public Works Division at (808) 586-0488.

Sincerely,

  
DOUGLAS MURDOCK  
Comptroller

c: ✓ Ms. Colleen Suyama, Sr. Assoc., Munekiyo Hiraga  
Mr. Wade Shimabukuro, DAGS-MDO

January 4, 2016

Douglas Murdock  
Comptroller  
Department of Accounting and  
General Services  
State of Hawai'i  
P.O. Box 119  
Honolulu, Hawai'i 96810-0119

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i ((P)1235.5)

Dear Mr. Murdock:

Thank you for your letter of September 9, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management, we acknowledge that the proposed project does not impact any of your Department's facilities and that you do not have any comments at this time.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Division

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DAVID Y. IGE  
GOVERNOR



ARTHUR J. LOGAN  
MAJOR GENERAL  
ADJUTANT GENERAL

KENNETH S. HARA  
COLONEL  
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII  
**DEPARTMENT OF DEFENSE**  
OFFICE OF THE ADJUTANT GENERAL  
3949 DIAMOND HEAD ROAD  
HONOLULU, HAWAII 96816-4495

August 25, 2015

Mr. Kyle Ginoza  
Director, Department of  
Environmental Management  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, Hawaii 96793

Attention: Ms. Elaine Baker – Solid Waste Division

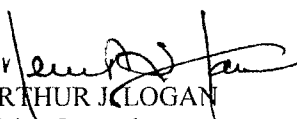
Subject: Draft Environmental Assessment for the Proposed Makai Hana Landfill Clean-Up and  
Closure Project at TMK (2) 1-3-006: 012 (por.), Hana, Maui, Hawaii

Dear Ms. Baker:

Thank you for the opportunity to comment on the above draft document. The State of Hawaii Department of Defense has no comments to offer relative to the project.

If you have any questions or concerns, please have your staff contact Mr. Lloyd Maki, Assistant Chief Engineering Officer at (808) 733-8441.

Sincerely,

for   
ARTHUR J. LOGAN  
Major General  
Hawaii National Guard  
Adjutant General



## MUNEKIYO HIRAGA

Planning, Project Management, Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Arthur J. Logan, Major General  
Department of Defense  
Office of the Adjutant General  
3949 Diamond Head Road  
Honolulu, Hawai'i 96816-4495

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

---

Dear Major General Logan:

Thank you for your letter of August 25, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure project. On behalf of the Department of Environmental Management we acknowledge your department does not have any comments at this time.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required please contact me at (808) 244-2015.

Very truly yours,

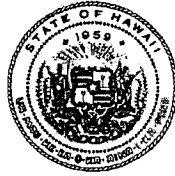
Colleen Suyama  
Senior Associate

CS:mge

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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DAVID Y. IGE  
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File:

08018PGH.15

August 12, 2015

Mr. Kyle Ginoza  
Director  
Department of Environmental Management  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, Hawaii 96793

Attention: Ms. Elaine Baker  
Solid Waste Division

Dear Mr. Ginoza:

**SUBJECT: Comments on Draft Environmental Assessment for the Proposed  
Makai Hana Landfill Clean-Up and Closure Project  
Tax Map Key (2) 1-3-006:012 (por.)  
Hana, Island of Maui, Hawaii**

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated August 3, 2015, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: <http://health.hawaii.gov/epo/files/2013/05/Clean-Water-Branch-Std-Comments.pdf>

1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee (\$1,000 for an individual NPDES permit or \$500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: <https://eha-cloud.doh.hawaii.gov/epermit/>. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.
5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
  - a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches



necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

- b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.
- c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
- d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
- e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

If you have any questions, please visit our website at: <http://health.hawaii.gov/cwb/>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF  
Clean Water Branch

GH:ay

- c: Ms. Elaine Baker, EM-SW (via e-mail [elaine.baker@co.maui.hi.us](mailto:elaine.baker@co.maui.hi.us) only)  
Ms. Colleen Suyama, Munekiyo Hiraga (via e-mail [colleen@munekiyohiraga.com](mailto:colleen@munekiyohiraga.com) only)



## MUNEKIYO HIRAGA

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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Alec Wong, P.E., Chief  
Clean Water Branch  
Department of Health  
P.O. Box 3378  
Honolulu, Hawai'i 96801-3378

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012 (por.) and 007 (por.), Hāna, Maui, Hawai'i (08018PGH.15)

Dear Mr. Wong:

Thank you for your letter of August 12, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. The Clean Water Branch's standard comments have been referred to the Department of Environmental Management (DEM) for review and consideration, as applicable. Further, on behalf of the DEM we offer the following information, which addresses your comments in the order listed in your letter:

1. The project shall comply with the water quality provisions of Section 11-54, Hawai'i Administrative Rules (HAR), as applicable.
2. As may be required, a National Pollutant Discharge Elimination System (NPDES) permit will be obtained from the Department of Health.
3. The DEM will consult with the United States Army Corps of Engineers, Regulatory Branch to determine applicable Department of Army (DA) and related permitting requirements for the project.
4. We acknowledge that all discharges related to the project construction or operation activities must comply with the State's Water Quality Standard and noncompliance with water quality and permitting requirements, may be subject to penalties of \$25,000.00 per day per violation.

Alec Wong, P.E., Chief  
January 4, 2016  
Page 2

5. The DEM is supportive of efforts to reduce, reuse and recycle and as such, consideration will be given to the DOH recommendations to protect, restore, and sustain water quality and beneficial uses of State waters.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,

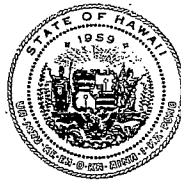


Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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AUG 31 2015

VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.  
DISTRICT HEALTH OFFICER

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
MAUI DISTRICT HEALTH OFFICE  
54 HIGH STREET  
WAILUKU, HAWAII 96793-3378

August 27, 2015

Mr. Kyle Ginoza  
Director  
Department of Environmental Management  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, HI 96793

Attn: Elaine Baker-Solid Waste Division

Dear Mr. Ginoza:

**Subject: Draft Environmental Assessment for the Proposed Makai Hana  
Landfill Clean-up and Closure Project, Hana, Maui, Hawaii  
TMK: (2) 1-3-006:012 (por.)**

Thank you for the opportunity to review this project. We have the following comments to offer:

1. It is recommended that a mosquito control plan be developed for the landfill. *Aedes albopictus* is a dominant mosquito species in the Hana area. It is also the vector of the Dengue Fever virus. The accumulation of tires, vehicles and other objects that hold water serves as ideal breeding sources for mosquitoes. A comprehensive mosquito control program is needed for the Hana landfill. Should you have any questions, please call our Vector Control Branch at 808 873-3560.
2. National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.

It is strongly recommended that the Standard Comments found at the Department's website: <http://health.hawaii.gov/epo/home/landuse-planning-review-program/> be reviewed and any comments specifically applicable to this project should be adhered to.

Mr. Kyle Ginoza  
August 27, 2015  
Page 2

Should you have any questions, please contact me at [patricia.kitkowski@doh.hawaii.gov](mailto:patricia.kitkowski@doh.hawaii.gov) or 808 984-8230.

Sincerely,

A handwritten signature in black ink that reads "Patti Kitkowski". The signature is fluid and cursive, with the first name "Patti" and last name "Kitkowski" clearly legible.

Patti Kitkowski  
District Environmental Health Program Chief

c EPO  
Colleen Suyama, Munekiyo Hiraga

January 4, 2016

Patti Kitkowski, District Environmental Health Program Chief  
Department of Health  
State of Hawai'i  
Maui District Health Office  
54 High Street  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

---

Dear Ms. Kitkowski:

Thank you for your letter of August 27, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management (DEM) we offer the following information, which addresses your comments in the order listed in your letter:

1. The Hāna Landfill does not accept tires and vehicles that may serve as breeding areas for mosquitos. However, as recommended, a mosquito control plan will be developed for the landfill by DEM to limit breeding areas within the landfill.
2. As may be required, a National Pollutant Discharge Elimination System (NPDES) permit will be obtained from the Department of Health.

Patti Kitkowski, District Environmental Health Program Chief  
January 4, 2016  
Page 2

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at 244-2015.

Very truly yours,

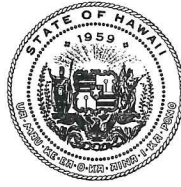


Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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AUG 14 2015

VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

**STATE OF HAWAII**  
**DEPARTMENT OF HEALTH**  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File:

EPO 15-192

August 10, 2015

Ms. Colleen Suyama  
Munekiyo Hiraga  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Suyama:

**SUBJECT: Draft Environmental Assessment (DEA) for Proposed Makai Hana Landfill Clean-Up and Closure Project, Hana, Maui**  
**TMK: (2) 1-3-006:012**

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your DEA to our office via the OEQC link:

[http://oeqc.doh.hawaii.gov/Shared%20Documents/EA\\_and\\_EIS\\_Online\\_Library/Maui/2010s/2015-08-08-MA-5B-DEA-Makai-Hana-Landfill-Clean-Up-and-Closure-Project.pdf](http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Maui/2010s/2015-08-08-MA-5B-DEA-Makai-Hana-Landfill-Clean-Up-and-Closure-Project.pdf)

EPO strongly recommends that you review the standard comments and available strategies to support sustainable and healthy design provided at: <http://health.hawaii.gov/epo/home/landuse-planning-review-program/>. Projects are required to adhere to all applicable standard comments.

The standard comments under the solid waste section include:

1. The Solid Waste Section (SWS) enforces laws and regulations contained in Hawaii Revised Statutes (HRS) Chapters 342H and 342I; and Hawaii Administrative Rules, Title 11, Chapter 58.1 "Solid Waste Management Control".
2. The purpose of the rules is to establish minimum standards governing the design, construction, installation, operation, and maintenance of solid waste disposal, recycling, reclamation and transfer systems.
3. All facilities that accept solid wastes are required to obtain a solid waste management permit from the SWS. Examples of the types of facilities governed by these regulations include landfills, transfer stations and convenience centers, recycling facilities, composting facilities, salvage facilities. Medical waste, infectious waste and foreign waste treatment facilities are also included.
4. Generators of solid waste are required to ensure that their wastes are properly delivered to permitted solid waste management facilities. Managers of construction and demolition projects should require their waste contractors to submit disposal receipts and invoices to ensure proper disposal of wastes.

More information on the DOH Solid Waste Section is available over the phone at 586-4226 and at: <http://health.hawaii.gov/shwb/solid-waste>



Ms. Colleen Suyama  
Page 2  
August 10, 2015

EPO also offers the following comments:

1. We suggest you review the requirements for the National Pollutant Discharge Elimination System (NPDES) permit. We recommend contacting the Clean Water Branch at (808) 586-4309 or [cleanwaterbranch@doh.hawaii.gov](mailto:cleanwaterbranch@doh.hawaii.gov) after relevant information is reviewed at:
  - a. <http://health.hawaii.gov/cwb>
  - b. <http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/standard-npdes-permit-conditions>
  - c. <http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/forms>
2. EPO recommends you review the need and/or requirements for a Clean Air Branch permit. The Clean Air Branch can be consulted via e-mail at: [Cab.General@doh.hawaii.gov](mailto:Cab.General@doh.hawaii.gov) or via phone: (808) 586-4200.
3. If noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work. Please call the Indoor and Radiological Health Branch at (808) 586-4700 and review relevant information online at: <http://health.hawaii.gov/irhb/noise>

EPO encourages you to examine and utilize the Hawaii Environmental Health Portal. The portal provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings. The Portal is continually updated. Please visit it regularly at: <https://eha-cloud.doh.hawaii.gov>

You may also wish to review the revised Water Quality Standards Maps that have been updated for all islands. The Water Quality Standards Maps can be found at:  
<http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/water-quality-standards/>.

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design.

Mahalo nui loa,



Laura Leialoha Phillips McIntyre, AICP  
Program Manager, Environmental Planning Office

c: Applicant: Mr. Kyle Ginoza, County of Maui, Dept. of Environmental Management  
DOH: DHO Maui, SHWB {via email only}

January 4, 2016

Laura Leialoha Phillips McIntyre, AICP, Program Manager  
Department of Health  
Environmental Planning Office  
State of Hawai'i  
P.O. Box 3378  
Honolulu, Hawai'i 96801-3378

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i (EPO 15-192)

Dear Ms. McIntyre:

Thank you for your letter of August 10, 2015, responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. The Environmental Planning Office's standard comments and available strategies to support sustainable and healthy design have been referred to the Department of Environmental Management (DEM) for their review and consideration. Further, on behalf of the DEM we offer the following information, which addresses your comments in the order listed in your letter:

1. As may be required, a National Pollutant Discharge Elimination System (NPDES) permit will be obtained from the Department of Health (DOH).
2. The DOH Clean Air Branch will be consulted by DEM to determine any applicable permitting requirements.
3. As may be required, a noise permit will be obtained pursuant to Chapter 11-46, Community Noise Control.
4. We thank you for the information provided on the Hawaii Environmental Health Portal and Water Quality Standards Map.

Laura Leialoha Phillips McIntyre, AICP, Program Manager  
January 4, 2016  
Page 2

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required please contact me at (808) 244-2015.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Colleen Suyama', with a long horizontal flourish extending to the right.

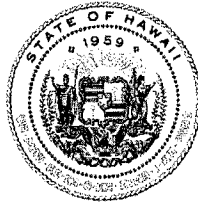
Colleen Suyama  
Senior Associate

CS:lh

cc: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

JEFFREY T. PEARSON  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 8, 2015

Kyle Ginoza, Director  
County of Maui  
Department of Environmental Management  
[environmental.mgmt@co.maui.hi.us](mailto:environmental.mgmt@co.maui.hi.us)

Log No. 2015.02635  
Doc No. 1510JP02

Aloha Mr. Ginoza,

**SUBJECT: Chapter 6E-8 Historic Preservation Review – Maui County  
Draft Archaeological Assessment Survey Report for Portions of the Hana Makai Landfill  
Department of Environmental Management  
Kawaipapa Ahupua'a, Hāna District, Island of Maui  
TMK (2) 1-3-006:012 por.**

Thank you for the opportunity to review the draft submittal titled *An Archaeological Assessment of a 6.4-Acre Portion of Land in Kawaipapa Ahupua'a, Hana District, Island of Maui (TMK (2) 1-3-06:012 [Portion])* by Fredericksen (July 2015). We received the draft report on July 14, 2015. According to the submittal, project plans call for the eventual removal of the old Makai Landfill, with waste matter relocation onto a portion of the adjacent active Mauka Landfill, which is across old Waikoloa Road. The Project Area consists of 6.4 acre portion of the 34.380 acre parcel.

The *Abstract* and *Introduction* sections state the subject survey was completed at the request of Mr. Mich Hirano of Munekiyo Hiraga, under the direction of Mr. Ali Mehrazarin, A-Mehr, Inc., on behalf of the County of Maui, Department of Environmental Management. The *Field Methods* section states the survey was completed at the request of Ms. Elaine Baker from the County of Maui Department of Environmental Management.

The archaeological field work does not cover 100% pedestrian survey as reported in the *Abstract*. Under the *Field Methods* section, it states the pedestrian survey only occurred along the *margins of the abandoned landfill*. The draft report explains that grubbing and grading action associated with ongoing County Landfill operations appear to have impacted the entire project area. Scattered and piled refuse materials were noted along the surface along with abandoned vehicles and imported crushed cinder. The majority of the APE was not accessible for the surface survey. Subsequently, we request clarification of the areas surveyed.

The subsurface testing component does not correlate with the standard archaeological sampling approach nor recommendations made by our division. The 14 backhoe test trenches were excavated in "accessible" portions of the APE. Previous discussions between SHPD staff focused on subsurface test trenches to be placed throughout the APE, in areas that are not currently heavily utilized. The trenches were not placed in the areas previously requested by SHPD. In addition, the backhoe test trenches were very short (only 2.5-3.5 meters) and very shallow. These results do not constitute adequate archaeological sub surface testing strategies. Another concern we have is within the *Results of Fieldwork* section where the backhoe test trench sizes listed in the text and table do not correlate with those depicted in the photographs. Further, the rough sketch drawings located in the *Project Profiles Backhoe Trenches* do not contain any layers, layer descriptions, or the base of excavations.

Pursuant to Hawai'i Revised Statutes §6E-8 under Hawai'i Administrative Rules Chapters §13-275 and §13-276, we are unable to accept the submitted report in its current format. Please address the aforementioned concerns. The following

County of Maui  
Department of Environmental Management  
October 8, 2015  
Page 2

Attachment identifies additional proposed revisions for the draft document. We look forward to working with you to bring the archaeological work up to current standards. To aid in a rapid review of the subsequent submittal, please include a cover letter that specifies the additional work conducted in the field, as well as the changes to this document including their page numbers.

We request that you send one hardcopy of the corrected draft document for review and approval, along with a copy of this review letter to our Maui office. Please contact me at (808) 243-4641 or email [Morgan.E.Davis@hawaii.gov](mailto:Morgan.E.Davis@hawaii.gov) if you have any questions or concerns about this letter.

Mahalo,



Morgan E. Davis  
Lead Archaeologist, Maui Section

cc:	County of Maui Department of Planning <a href="mailto:Planning@co.maui.hi.us">Planning@co.maui.hi.us</a>	County of Maui Department of Public Works – DSA <a href="mailto:Renee.Segundo@co.maui.hi.us">Renee.Segundo@co.maui.hi.us</a>	County of Maui Cultural Resources Commission <a href="mailto:Annalise.Kehler@co.maui.hi.us">Annalise.Kehler@co.maui.hi.us</a>
	Munekiyo Hiraga Colleen Suyama <a href="mailto:Colleen@munekiyohiraga.com">Colleen@munekiyohiraga.com</a>	Erik M. Fredericksen, Principle Investigator Xamanek Researches, LLC PO Box 880131 Pukalani, Hawaii 96788 <a href="mailto:xamanekresearchesllc@gmail.com">xamanekresearchesllc@gmail.com</a>	

## ATTACHMENT

Requested Revisions: *An Archaeological Assessment of a 6.4-Acre Portion of Land in Kawaipapa Ahupua'a, Hana District, Island of Maui (TMK (2) 1-3-06:012 [Portion])* by Fredericksen (July 2015).

### General Comments

1. Ensure and state in the text that the report is in compliance with Hawai'i Revised Statutes §6E-8 under Hawai'i Administrative Rules Chapters §13-275 and §13-276.
2. Replace all of the TMK references to the standardized format: (2) 1-3-006:012 por.
3. Edit the report for syntax errors to include consistent grammar and spelling.
4. Remain consistent with the references and results.
5. Complete additional field work in order to provide necessary information. Part of the work should involve submitting a scaled Project Area map containing the proposed placement of the backhoe trench locations to our office for approval, prior to conducting the field work.

### Abstract and Introduction

6. Rework and revise this section to include any changes made as a result of the additional field work and the requested revisions listed in this attachment.
7. Change 100% pedestrian survey to the accurate percentage of surface inspection coverage.

### Study Area

8. In this portion of the report, identify the acreage of the parcel. Remove paragraph 3 on Page 5 from the *Background Research* section and paste the study area description into the *Study Area* section.
9. Define the "accessible" areas represented in the survey.
10. Include information from the 2003 Xamanek field inspection letter noting undocumented archaeological sites in the makai section.
11. Discuss the many natural and modified ponds located in the general area.

### Background Research

12. Remove "Legendary" in the subtitle and replace with something more culturally appropriate.
13. Cite the original sources here instead including Cleghorn and Rogers (1987), which is not identified in text or the *References*.
14. As stated in HAR 13-276: *The report shall contain a section on historic background research which shall be used to predict the kinds and distributions of historic properties that might still be present and to provide a context for understanding and evaluating the significance of any historic properties that are found. The historic background section of the report shall: Present findings on land use and site patterns for the ahupua'a and parcel...* Include a discussion to cover this requirement for Kawaipapa Ahupua'a.
15. Provide a summary of documents and materials reviewed during the research. Include all referenced documents in the *References*.

16. Explain the different subsections *Legendary History* and *Precontact period*. Why are these two separate summaries?
17. Include the two main references cited in the aforementioned with the *References*. Again, why are archaeological reports being cited for traditional Hawaiian history? Cite original sources.
18. Move the *Mahele Awards* subsection to be placed before the *Post-1850 period* summary. Cite the references and include with the *References*.
19. Remove the *Oral History* subsection. This irrelevant information compiled in 1996 is lifted from a different subject area on the other side of Hana, which is not located in Kawaipapa Ahupua'a.
20. Under *Mahele Awards*, edit the first sentence clarifying the parcel is owned by the State (not formerly).
21. Clearly indicate whether *any land commission awards were granted within the parcel and within the ahupua'a in which the parcel is located; and if awards were granted, specify the number of these awards, their LCA number, the use of each plot or apana awarded, and locate the awards on a map.*
22. Only include LCA details for the subject ahupua'a. Clarify and elaborate on Kawaipapa LCA awards.
23. Revise the *Current period* subsection to correlate with the Project Area. The information was pasted from a different report, which focuses on a different ahupua'a and does not accurately reflect the present land use and conditions of the subject Project Area.

#### **Previous Archaeological Work**

24. Be sure to cite the referenced reports and include the sources in the bibliography.
25. *The report shall contain a section on archaeological background research which shall include a review of whether any prior archaeological studies have occurred in the parcel and in the ahupua'a in which the parcel is located.* Edit the entire section to include specifics on Kawaipapa Ahupua'a.
26. *Include a summary of the functional types of archaeological sites found and their numbers and distributions; Dating (if any has been done); and A summary of past land use patterns for the ahupua'a and project area, reconciling as needed those patterns identified in the historical background section of the report with the existing archaeological information.* Include detailed information on the following sites listed on the State Inventory of Historic Places (SIHP), which are located within or adjacent to the subject parcel: 107 through 110, 1230, 1485, 1491, 1834 through 1837, 3150, and 3151.
27. Remove the last paragraph in the Previous Archaeological Work section or explain how it's relevant to the current study.
28. Elaborate on the *Settlement Patterns and Land Use* subsection.
29. In the *Expected Findings* subsection, include information on the sites within the parcel, discuss overhangs, caves, and alleged burial sites makai of the landfill.

#### **Field Methods**

30. Include the *extent of survey coverage. If the coverage was less than one hundred percent, the rationale for the sample (the sampling design) must be presented in a careful discussion. Sampling designs which included analysis of possible subsurface sites under sand dunes, urban fill, and other areas must also be presented here.*
31. Include the *techniques used to identify archaeological sites (transects, sweeps, test excavations...)* and define the distance between transect sweeps.

#### **Results of Fieldwork**

32. Once the requested revisions have been addressed, adjust this section accordingly.

**Summary and Conclusions**

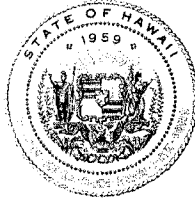
33. Once the requested revisions have been addressed, adjust this section accordingly.

**Recommendations**

34. Once the requested revisions have been addressed, adjust this section accordingly.



DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

JEFFREY T. PEARSON  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
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CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

December 24, 2015

Kyle Ginoza, Director  
County of Maui  
Department of Environmental Management  
[environmental.mgmt@co.maui.hi.us](mailto:environmental.mgmt@co.maui.hi.us)

Log No. 2015.04158  
Doc No. 1512MD50  
Archaeology

Aloha Mr. Ginoza,

**SUBJECT: Chapter 6E-8 Historic Preservation Review –  
Draft Archaeological Assessment Survey Report for 6.4 Acres with No New Sites  
Kawaipapa Ahupua'a, Hana District, Island of Maui  
TMK (2) 1-3-006:012 (por.)**

Thank you for the opportunity to review the draft submittal titled *An Archaeological Assessment of a 6.4-Acre Portion of Land in Kawaipapa Ahupua'a, Hana District, Island of Maui (TMK (2) 1-3-06:012 [Portion])* by Fredericksen (Revised November 2015). We received the revised report on November 30, 2015. According to the submittal, project plans call for the eventual removal of the old Makai Landfill, with waste matter relocation onto a portion of the adjacent active Mauka Landfill, which is across old Waikoloa Road. The Project Area consists of 6.4 acre portion of the 34.380 acre parcel. We previously reviewed an earlier draft of this report and requested revisions (Log No. 2015.02635, Doc No. 1510JP02). This survey was recommended by SHPD during consultation with the DLNR Land Division in March of 2015 (Log No. 2015.00536, Doc No. 1503JP01).

Fieldwork was conducted by one archaeologist on May 29 and June 3, 2015. Fourteen (14) trenches were mechanically excavated; no historic properties were encountered. Due to negative findings from the inventory survey this report has been submitted as an Archaeological Assessment. Archaeological monitoring is recommended during initial earthmoving activities around the margins of the old landfill and we concur with that recommendation. An archaeological monitoring plan will be submitted to SHPD for review and approval pursuant to Hawai'i Administrative Rule (HAR) §13-279. The draft archaeological assessment meets the requirements specified in HAR §13-275 and is accepted. Please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Please contact me at (808) 243-4641 or email [Morgan.E.Davis@hawaii.gov](mailto:Morgan.E.Davis@hawaii.gov) if you have any questions or concerns about this letter.

Mahalo,

Morgan E. Davis  
Lead Archaeologist, Maui Section

cc: County of Maui  
Department of Planning  
[Planning@co.maui.hi.us](mailto:Planning@co.maui.hi.us)

County of Maui  
Department of Public Works – DSA  
[Renee.Segundo@co.maui.hi.us](mailto:Renee.Segundo@co.maui.hi.us)

County of Maui  
Cultural Resources Commission  
[Annalise.Kehler@co.maui.hi.us](mailto:Annalise.Kehler@co.maui.hi.us)

Munekio Hiraga  
Colleen Suyama  
[Colleen@munekiyohiraga.com](mailto:Colleen@munekiyohiraga.com)

Erik M. Fredericksen, Principle Investigator  
Xamanek Researches, LLC  
PO Box 880131  
Pukalani, Hawaii 96788  
[xamanekresearchesllc@gmail.com](mailto:xamanekresearchesllc@gmail.com)



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Morgan Davis  
Lead Archaeologist, Maui Section  
State Historic Preservation Division  
Kakuhihewa Building  
601 Kamokila Boulevard, Suite 555  
Honolulu, Hawai'i 96807

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i (Log No. 2015.04158,  
Doc No. 1512MD50)

---

Dear Ms. Davis:

Thank you for your letter of December 24, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure project. On behalf of the Department of Environmental Management a Final Archaeological Assessment Survey report will be filed with the State Historic Preservation Division (SHPD). Further, an archaeological monitoring plan will be submitted to SHPD for review and approval prior to the initiation of any ground altering work.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required please contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:mge

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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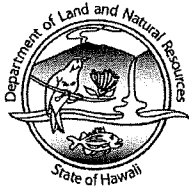
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Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

[www.munekiyo-hiraga.com](http://www.munekiyo-hiraga.com)

DAVID Y. IGE  
GOVERNOR OF HAWAII



SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE  
MANAGEMENT

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

September 4, 2015

County of Maui  
Department of Environmental Management  
Attention: Elaine Baker – Solid Waste Division  
2200 Main Street, Suite 225  
Wailuku, Hawaii 96793

Munekiyo & Hiraga, Inc.  
Attention: Ms. Colleen Suyama, Senior Associate  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

via email: [colleen@mhplanning.com](mailto:colleen@mhplanning.com)

Dear Ms. Baker and Ms. Suyama:

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hana Landfill  
Clean-up and Closure Project

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

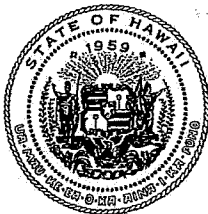
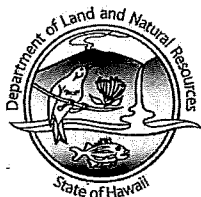
At this time, enclosed are comments from the Engineering Division on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji  
Land Administrator

Enclosure(s)  
cc: Central Files



15 AUG 14 PM 11:03 ENGINEERING

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE  
MANAGEMENT

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809  
August 13, 2015

MEMORANDUM

TO: ~~FR:~~

**DLNR Agencies:**

- ☐ Div. of Aquatic Resources
- ☐ Div. of Boating & Ocean Recreation
- ☒ Engineering Division
- ☐ Div. of Forestry & Wildlife
- ☐ Div. of State Parks
- ☒ Commission on Water Resource Management
- ☐ Office of Conservation & Coastal Lands
- ☒ Land Division – Maui District
- ☒ Historic Preservation

FROM: ~~TO:~~

SUBJECT:

Russell Y. Tsuji, Land Administrator

Draft Environmental Assessment for the Proposed Makai Hana Landfill  
Clean-up and Closure Project

LOCATION:

Hana, Island of Maui; TMK: (2) 1-3-006:012 (por.)

APPLICANT:

Department of Environmental Management, County of Maui

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by **September 3, 2015**.

*Only one (1) copy of the CD is available for your review in Land Division office, Room 220.*

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

- ☐ We have no objections.
- ☐ We have no comments.
- ☒ Comments are attached.

Signed: \_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

Carty S. Chang, Chief Engineer

8/24/15

**DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION**

**LD/ Russell Y. Tsuji**

**Ref.: DEA for Proposed Makai Hana Landfill Clean-up and Closure Project  
Maui.024**

**COMMENTS**

- (X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zones AE and X. The National Flood Insurance Program regulates developments within Zone AE, but not Zone X.
- ( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is also located in Zone \_\_\_\_.
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_.
- (X) Please note that the project site must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

**Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:**

- ( ) Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
- ( ) Mr. Carter Romero (Acting) at (808) 961-8943 of the County of Hawaii, Department of Public Works.
- (X) Ms. Carolyn Cortez at (808) 270-7253 of the County of Maui, Department of Planning.
- ( ) Mr. Stanford Iwamoto at (808) 241-4896 of the County of Kauai, Department of Public Works.
- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
- ( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
- ( ) Additional Comments: \_\_\_\_\_
- ( ) Other: \_\_\_\_\_

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: \_\_\_\_\_

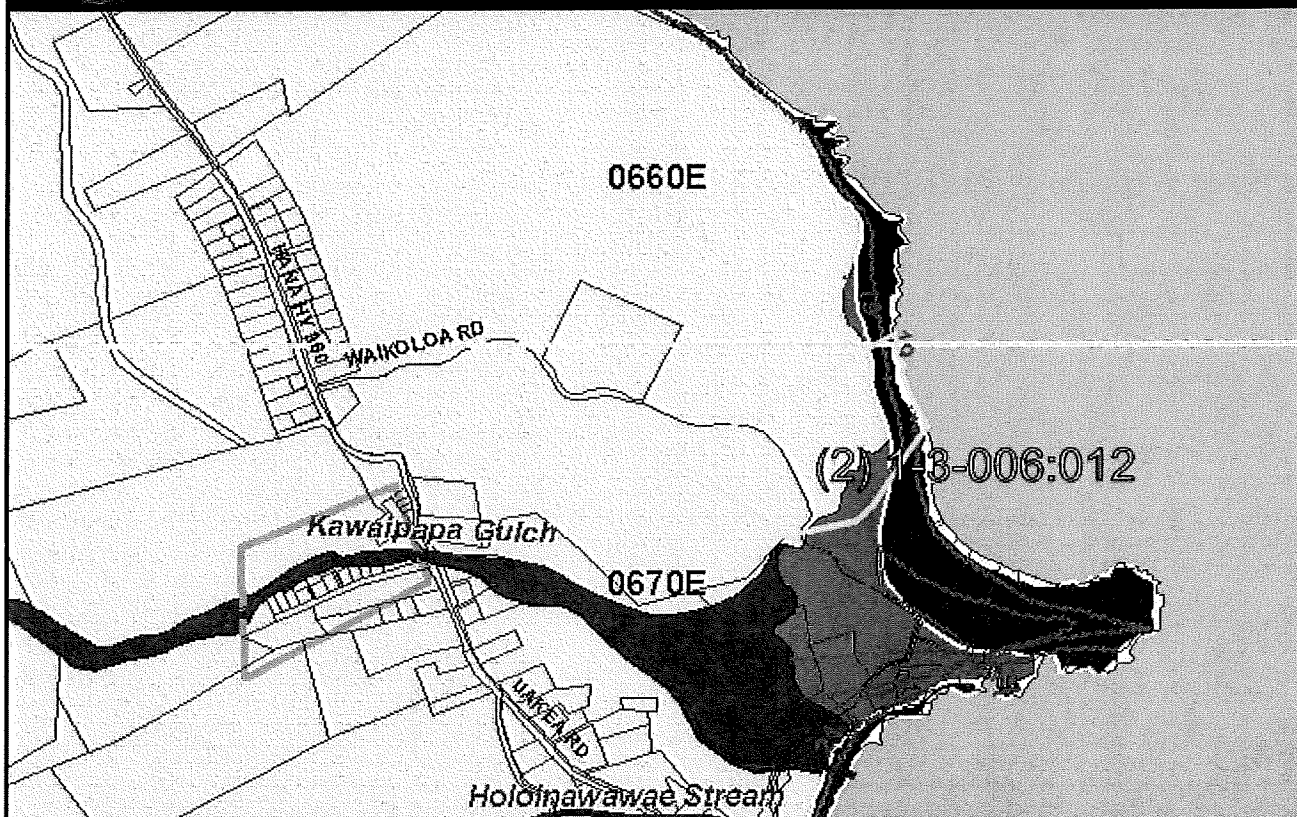
CARTY S. CHANG, CHIEF ENGINEER

Date: \_\_\_\_\_

2/28/15



# State of Hawaii FLOOD HAZARD ASSESSMENT REPORT



## NATIONAL FLOOD INSURANCE PROGRAM

### FLOOD ZONE DEFINITIONS

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD** – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- Zone A: No BFE determined.
- Zone AE: BFE determined.
- Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined.
- Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
- Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

**NON-SPECIAL FLOOD HAZARD AREA** – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

### OTHER FLOOD AREAS

- Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

### PROPERTY INFORMATION

COUNTY: MAUI  
TMK NO: (2) 1-3-006-012  
PARCEL ADDRESS: KAWAIPAPA  
HANA, HI 96713  
FIRM INDEX DATE: SEPTEMBER 19, 2012  
LETTER OF MAP CHANGE(S): NONE  
FEMA FIRM PANEL(S):  
1500030670E-SEPTEMBER 25, 2009  
1500030660E-SEPTEMBER 25, 2009

PARCEL DATA FROM: JULY 2013  
IMAGERY DATA FROM: MAY 2005

### IMPORTANT PHONE NUMBERS

County NFIP Coordinator  
County of Maui  
Carolyn Cortez (808) 270-7253  
State NFIP Coordinator  
Carol Tyau-Beam, P.E., CFM (808) 587-0267

*Disclaimer: The Hawaii Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use, accuracy, completeness, and timeliness of any information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR, its officers, and employees from any liability which may arise from its use of its data or information.*

*If this map has been identified as 'PRELIMINARY', please note that it is being provided for informational purposes and shall not be used for flood insurance rating. Contact your county floodplain manager for flood zone determinations to be used for compliance with local floodplain management regulations.*



**MUNEKIYO HIRAGA**

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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Russell Tsuji  
Land Administrator  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, Hawai'i 96809

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012 por.)  
and 007 (por.), Hāna, Maui, Hawai'i

---

Dear Mr. Tsuji:

Thank you for your letter of September 4, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management (DEM), we acknowledge that the subject property is located within Flood Zones AE and X and work within Flood Zone AE is regulated by the National Flood Insurance Program. A Special Flood Hazard Development Permit will be obtained prior to the initiation of construction.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

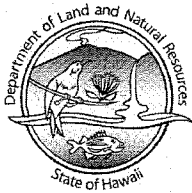
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Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

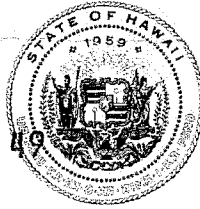
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DAVID Y. IGE  
GOVERNOR OF HAWAII



RECEIVED



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COUNTY OF MAUI  
DEPT. OF ENVIRONMENTAL MGMT.  
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
OFFICE OF CONSERVATION AND COASTAL LANDS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

W. ROY HARDY  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAIKOO LAKE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

ref:OCCL:MC

Corr MA-15-128

Kyle K. Ginoza  
Department of Environmental Management  
2050 Main Street, Suite C  
Wailuku, Maui, HI 96793

Dear Mr. Ginoza,

SUBJECT: MAKAI HANA LANDFILL CLOSURE  
Kawaipapa, Hana, Maui  
TMK (2) 1-3-006:007 & 012

☐ SCAN  
DEPT. OF  
ENVIRONMENTAL  
MANAGEMENT

	AUG 18 2015	INFO	ACT	CONF	FILE
DIRECTOR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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The Office of Conservation and Coastal Lands (OCCL), Department of Land and Natural Resources (DLNR) has reviewed the information you provided regarding the closure of the 6.4 acre Makai Hana Landfill.

The 29-acre Hana Garbage Dump Site was established by Executive Order in November 1985 to be under the control of the County of Maui. The makai boundary follows along 250 foot west and parallel to the shoreline and top of the coastal pali. Two areas were actively used for fill, one mauka of Waikoloa Road and in the State Land Use Agriculture District, and one makai of the road in the Limited Subzone of the State Land Use Conservation District.

The makai landfill is no longer active, and the County proposes to excavate the site and transfer the waste to the active mauka site.

The project will involve 99,500 cubic yards of excavation. This includes 89,200 cubic yards of subsurface waste and 10,300 cubic yards of topsoil. The excavated material will be moved across the street to the active Hana Landfill, which lies outside the Conservation District. The Makai Hana Landfill will be restored to its original topography. It is estimated that the project will be carried out in stages over a three year period.

There is an area of high uncertainty regarding the boundaries of the waste due to the complex terrain, and it is possible that vehicles have been disposed of outside the boundaries set by the Executive Order.

The County is preparing an environmental assessment for the project.

The project as described appears to be an identified land use in the Limited Subzone pursuant to Hawai'i Administrative Rules (HAR) §13-5-22, P-8 STRUCTURES AND LAND USES, EXISTING (D-1) *Major alteration of existing structures, facilities, uses, and equipment, to topographical features which are different from the original use or different from what was allowed under the existing permit.* This use requires a Conservation District Use Permit (CDUP) signed by the Board of Land and Natural Resources, who have the final authority to modify, grant, or deny any permit.

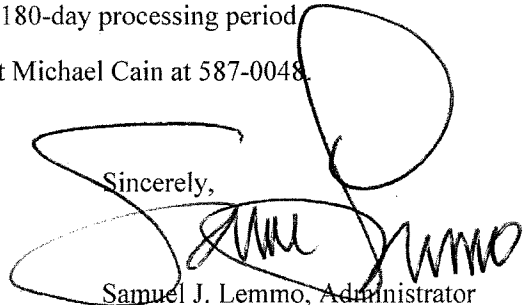
copy: Land Division, Chair



The application for the project can be processed simultaneously with the environmental assessment. However, please note that the maximum processing period for applications with our office is 180 days, and there is no mechanism to extend this. You will want to time your submittal so that it secures a Finding of No Significant Impact (FONSI) within this 180-day processing period.

If you have any questions please contact Michael Cain at 587-0048.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read 'Samuel J. Lemmo', is written over the word 'Sincerely,' and the printed name below it.

Samuel J. Lemmo, Administrator  
Office of Conservation and Coastal Lands

January 5, 2016

Samuel L. Lemmo, Administration  
Department of Land and Natural Resources  
Office of Conservation and Coastal Lands  
State of Hawai'i  
P.O. Box 621  
Honolulu, Hawai'i 96809

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i (MA-15-128)

Dear Mr. Lemmo:

Thank you for your letter of August 18, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management, we acknowledge that a Conservation District Use Permit will be required from the Board of Land and Natural Resources (BLNR). A Conservation District Use Application will be filed with your office for review and action by the BLNR.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR

K:\DATA\A-MEHR\HanaSolidWaste\Draft EA\DEA response letters\DLNR OCCL response letter.doc



SEP 10 2015

JESSICA E. WOOLEY  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Department of Health  
235 South Beretania Street, Suite 702  
Honolulu, Hawai'i 96813  
Telephone (808) 586-4185  
Facsimile (808) 586-4186  
Email: oeqchawaii@doh.hawaii.gov

September 8, 2015

Mr. Kyle Ginoza, Director  
Department of Environmental Management  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, HI 96793

Dear Mr. Ginoza,

SUBJECT: Draft Environmental Assessment (EA) for the Makai Hana Landfill Clean-Up and Closure, Hana, Maui, Hawai'i

The Office of Environmental Quality reviewed the Draft EA prepared for the subject project, and offers the following comments for your consideration.

Page 11 of the Draft EA correctly notes that your department will be the proposing and determination agency for this project. The statement that your department has also been designated by the Mayor as the accepting authority, however, is premature at this time. Accepting Authorities only come into play if a determination is made that the environmental impacts of the project will be significant thereby requiring preparation of an Environmental Impact Statement for the project.

In the discussion detailing the Removal Protocol on Page 6, more information on the areal and temporal aspects of the phased or staged increments of closure would be useful.

Should you have any questions, please contact our office at (808) 586-4185.

Sincerely,

A handwritten signature in cursive script that reads "Jessica Wooley".

Jessica Wooley  
Director

cc: Colleen Suyama (Consultant)

January 5, 2016

Glenn Scott, Acting Director  
Department of Health  
Office of Environmental Quality Control  
State of Hawai'i  
235 S. Beretania Street, Suite 702  
Honolulu, Hawai'i 96813

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

---

Dear Mr. Scott:

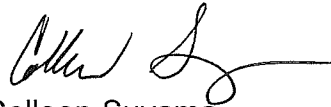
Thank you for your office's letter of September 8, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management, we note your comment regarding use of the term 'Accepting Authority' and will revise the Draft EA accordingly to utilize the correct terminology.

The clean-up and closure will be conducted in three (3) phases over a period of three (3) years. Phase 1 will involve removal of approximately 25,000 cubic yards (c.y.) of refuse and 3,000 c.y. of soil. Phase 2 will involve removal of approximately 32,000 c.y. of refuse and 3,000 c.y. of soil. The final Phase 3 will involve removal of approximately 33,000 c.y. of refuse and 3,000 c.y. of soil.

Glenn Scott, Director  
January 5, 2016  
Page 2

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,



Colleen Suyama  
Senior Associate

CS:lh

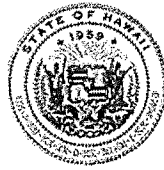
Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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SEP 24 2015

PHONE (808) 594-1888

FAX (808) 594-1938



**STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS**  
560 N. NIMITZ HWY., SUITE 200  
HONOLULU, HAWAII 96817

HRD15/1348D

September 14, 2015

Kyle Ginoza, Director  
Department of Environmental Management  
Attn: Elaine Baker – Solid Waste Division  
County of Maui  
2200 Main St., Suite 225  
Wailuku, HI 96893

Re: Request for Comments on the Draft Environmental Assessment for the Proposed Makai  
Hāna Landfill Clean-up and Closure Project  
Kawaipapa Ahupua'a, Hāna Moku, Maui Moku  
Tax map key (2) 1-3-006:012 (por.)

Aloha Mr. Ginoza:

The Office of Hawaiian Affairs (OHA) is in receipt of your August 3, 2015 letter requesting comments on the draft environmental assessment (DEA) for the proposed Makai Hāna landfill clean-up and closure. Munekiyo Hiraga is acting on behalf of the Maui County Department of Environmental Management.

The Hāna Landfill (Landfill) is comprised of two sections: mauka side is currently an active landfill area and lies within the State of Hawai'i Land Use Agricultural District, while the makai side has not been used for a number of years, and lies within the State of Hawai'i Land Use Conservation District. The project entails the removal of all the waste from the makai area to the mauka area in order to comply with State of Hawai'i<sup>1</sup> and federal<sup>2</sup> regulations which apply to active landfills on or after October 9, 1993. After removal of all the waste, the makai area will be graded and planted with a mixture of grass and vegetation in order to restore it, to the extent possible, to its pre-landfill state.

<sup>1</sup> Hawai'i Administrative Rules 11-58.1-17

<sup>2</sup> Code of Federal Regulation 40

OHA appreciates the DEA's emphasis on restoring the makai side of the Landfill and incorporating grass and vegetation in the landscaping. OHA notes that HRS § 103D-408 requires all state agencies funding landscaping projects to include a minimum percentage of Hawaiian (native and Polynesian-introduced) plants, subject to exceptions, for new or renovated public projects.

In addition, one of OHA's strategic priorities is 'Āina (Land), which represents our commitment to maintaining a connection to the past and a viable land base, allowing Native Hawaiians to participate and benefit from responsible stewardship of Ka Pae 'Āina O Hawai'i. In furtherance of this priority, and in line with Act 233 (Reg. Sess. 2015) and HRS § 103D-408, we particularly support the preservation of Hawai'i's cultural and ecological heritage, contributing to a Hawaiian sense of place, and reducing the use of non-native invasive plant species.

Mahalo for the opportunity to comment. Should you have any questions, please contact Jeannin Jeremiah at 594-1790 or by email at [jeanninj@oha.org](mailto:jeanninj@oha.org).

'O wau iho nō me ka 'ōia 'i'o,



Kamana'opono M. Crabbe, Ph.D.  
Ka Pouhana, Chief Executive Officer

KC:jj

C: ✓ Colleen Suyama – Munekiyo Hiraga

*\*Please address replies and similar, future correspondence to our agency:*

*Dr. Kamana'opono Crabbe  
Attn: OHA Compliance Enforcement  
560 N. Nimitz Hwy, Ste. 200  
Honolulu, HI 96817*



**MUNEKIYO HIRAGA**

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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Kamana'opono M. Crabbe, Ph.D  
Chief Executive Officer  
Office of Hawaii Affairs  
560 N. Nimitz Highway, Suite 200  
Honolulu, Hawai'i 96817


SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i (HRD15/1348D)

Dear Mr. Crabbe:

Thank you for your letter of September 14, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management (DEM), we acknowledge your request that restorative landscaping for the project site utilize Hawai'i native and Polynesian-introduced plants. Consideration will be given by DEM to utilizing native and Polynesian-introduced plants appropriate to the Hāna environment.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,

  
Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

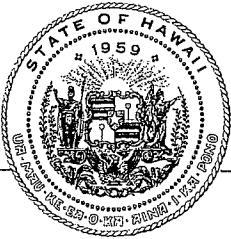
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Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

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## OFFICE OF PLANNING STATE OF HAWAII

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

SEP 08 2015

DAVID Y. IGE  
GOVERNOR

LEO R. ASUNCION  
ACTING DIRECTOR  
OFFICE OF PLANNING

Telephone: (808) 587-2846  
Fax: (808) 587-2824  
Web: <http://planning.hawaii.gov/>

Ref. No. P-14983

September 2, 2015

Mr. Kyle Ginoza, Director  
Department of Environmental Management  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, Hawaii 96793

Attention: Elaine Baker – Solid Waste Division

Dear Mr. Ginoza:

Subject: Draft Environmental Assessment for the Proposed Makai Hana Landfill Clean-up and Closure Project, Hana, Maui; Tax Map Key (2) 1-3-006:012 (por) and 007 (por)

Thank you for the opportunity to provide comments on the Draft Environmental Assessment (Draft EA) for the Hana Makai Landfill clean-up, and closure project. The Draft EA review material was transmitted to our office by letter dated August 3, 2015.

It is our understanding that the County of Maui Department of Environmental Management (DEM) proposes to remove 90,000 cubic yards of waste material from the makai section of the Makai Hana Landfill, and transfer the material to a larger area located on the west side of the Waikoloa Road in Hana. The site of the Makai Hana Landfill will be excavated, with recyclable and green material to be reused, and the remaining waste will be hauled to the larger site for permanent disposal. The Makai Hana Landfill will then be sealed, decommissioned, and landscaped to mitigate soil erosion.

The Office of Planning has reviewed the transmitted material and has the following comments to offer:

1. The Draft EA addresses our comments made in a previous pre-consultation letter dated February 27, 2015 (reference number P-14666). The Draft EA examines the project's consistency with the Hawaii Revised Statutes (HRS) Chapter 226, the Hawaii State Plan's objectives and policies; acknowledges that this project will require a Special Management Area permit from the County of Maui, Department of Planning; lists the need to obtain a National Pollutant Discharge Elimination System (NPDES) permit during the landfill removal phase to control sediment loss and erosion impacts; examines stormwater runoff impact on surface water resources; and incorporates the use of Low-

Mr. Kyle Ginoza, Director  
September 2, 2015  
Page 2

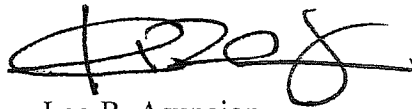
Impact Development design features to mitigate both the short and long-term effects of stormwater runoff on coastal resources.

2. The Draft EA does include an adequate analysis of the project's consistency to HRS 205A-2, the enforceable policies of the Hawaii Coastal Zone Management Program. However in Section III, Item F, pages 48-57, the Draft EA lists the objectives and policies of the Hawaii Coastal Zone Management Program (HRS 205A-2) as the Special Management Area objectives and policies of the Maui Planning Commission. As it pertains to issues of State concern, the coastal zone area falls under the jurisdiction of the Hawaii Coastal Zone Management program which is administered by the Office of Planning.

The Final Environmental Assessment should amend Section III, Item F, and re-list this section as the Hawaii Coastal Zone Management Program - Objectives and Enforceable Policies.

If you have any questions regarding this comment letter, please contact Josh Hekeia of our office at 587-2845.

Sincerely,

A handwritten signature in black ink, appearing to read 'Leo R. Asuncion', with a stylized flourish at the end.

Leo R. Asuncion  
Acting Director

✓ c: Colleen Suyama, Senior Associate

January 4, 2016

Leo R. Asuncion, Acting Director  
Office of Planning  
State of Hawai'i  
P.O. Box 2359  
Honolulu, Hawai'i 96804

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i (P-14983)

Dear Mr. Asuncion:

Thank you for your letter of September 2, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management, we offer the following information, which addresses your comments in the order listed in your letter:

1. We note your comment that the Draft EA addresses the Office of Planning's comments in their pre-consultation letter dated February 27, 2015.
2. As requested, Section III, Item F shall be amended to relist this section as the Hawai'i Coastal Zone Management Program – Objectives and Enforceable Policies.

Leo R. Asuncion, Acting Director  
January 4, 2016  
Page 2

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at (808) 244-2015.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Colleen S.', with a long horizontal flourish extending to the right.

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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DEPARTMENT OF  
**HOUSING AND HUMAN CONCERNS**  
COUNTY OF MAUI

AUG 28 2015

ALAN M. ARAKAWA  
Mayor

CAROL K. REIMANN  
Director


JAN SHISHIDO  
Deputy Director

---

2200 MAIN STREET • SUITE 546 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165  
MAILING ADDRESS: 200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • EMAIL: director.hhc@mauicounty.gov

**MEMORANDUM**

TO: Kyle Ginoza, Director  
Department of Environmental Management

FROM:  Wayde Oshiro, Housing Administrator  
Housing Division

DATE: August 12, 2015

SUBJECT: **Draft Environmental Assessment (EA) for the Proposed Makai Hana  
Landfill Clean-Up and Closure Project at TMK (2) 1-3-006:012 (por.),  
Hana, Maui, Hawaii**

The Department has reviewed the Draft Environmental Assessment (EA) for the above subject project. Based on our review, we have determined that the subject project is not subject to Chapter 2.96, Maui County Code. At the present time, the Department has no additional comments to offer.

Please call Mr. Veranio Tongson Jr. of our Housing Division at (808) 270-1741 if you have any questions.

cc: Director of Housing and Human Concerns  
Munekiyo Hiraga



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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Carol Reimann, Director  
Department of Housing and Human Concerns  
County of Maui  
2200 Main Street, Suite 546  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007, Hāna, Maui, Hawai'i

---

Dear Ms. Reimann:

Thank you for your letter of August 12, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management, we acknowledge your department does not have any comments at this time.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at 244-2015.

Very truly yours,

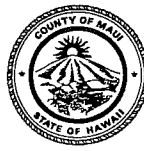
Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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ALAN M. ARAKAWA  
Mayor



KA'ALA BUENCONSEJO  
AUG 26 2015 Director

BRIANNE L. SAVAGE  
Deputy Director

**DEPARTMENT OF PARKS & RECREATION**  
700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

(808) 270-7230  
FAX (808) 270-7934

August 19, 2015

Kyle Ginoza, Director  
Department of Environmental Management  
Attention: Elaine Baker - Solid Waste Division  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, HI 96793

Dear Mr. Ginoza:

**SUBJECT: Draft Environmental Assessment for the Proposed Makai Hana  
Landfill Clean-up and Closure Project at TMK: (2) 1-3-006:012 (por.),  
Hana, Maui, Hawaii**

Thank you for the opportunity to review and comment on the proposed clean-up and closure of the Makai Hana Landfill. As indicated in our early consultation letter, the Department has no comment at this time, but would like to review the project as it develops.

Feel free to contact me or Robert Halvorson, Chief of Planning and Development, at 270-7931, should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ka'ala Buenconsejo", is written over a circular stamp.

KA'ALA BUENCONSEJO  
Director of Parks and Recreation

c: Robert Halvorson, Chief of Planning and Development  
Colleen Suyama, Munekiyo Hiraga

KB:RH:do



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Ka'ala Buenconsejo, Director  
Department of Parks and Recreation  
County of Maui  
700 Hali'a Nakoa Street, Unit 2  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

---

Dear Mr. Buenconsejo:

Thank you for your letter of August 19, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management, we acknowledge your department does not have any comments at this time.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729

Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233

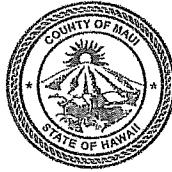
www.munekiyo-hiraga.com



ALAN M. ARAKAWA  
Mayor

WILLIAM R. SPENCE  
Director

MICHELE CHOUTEAU McLEAN  
Deputy Director



AUG 20 2015

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

August 20, 2015

Mr. Kyle Ginoza, Director  
Department of Environmental Management  
Attn: Elaine Baker – Solid Waste Division  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, Hawaii. 96793

Dear Mr. Ginoza:

**SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED MAKAI HANA LANDFILL CLEAN-UP AND CLOSURE PROJECT; LOCATED IN HANA, MAUI, HAWAII; TMK: (2) 1-3-006:012 (POR.) AND 007 (POR.) (EAC 2015/0009)**

The Department of Planning (Department) is in receipt of your August 3, 2015 letter requesting comments on a draft EA for the clean-up and closure of the Makai Hana Landfill. The Department understands that the proposed action includes the following:

- The Makai Landfill covers an area approximately 6.4 acres and lies in the State Conservation District and the County Special Management Area (SMA); and
- Disposal activities ceased in 2003 and the area is now covered in heavy brush. DEM proposes to excavate the 6.4 acres and move the buried waste to the active "mauka" landfill site. The excavated area will then be refilled with soil.

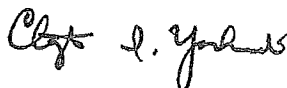
The Department has the following comment:

That the possibility - if feasible - after the waste has been removed, rather than refill the 6.4 acres excavated area with the hundreds of truckloads of soil required, that it be converted to a retention basin/soccer field for the Hana community to use and enjoy. A retention basin/soccer field would be economically advantageous to the County and a huge benefit to the Hana community. This is a great opportunity to create a win-win for the County and the people of Hana.

Mr. Kyle Ginoza, Director  
August 20, 2015  
Page 2

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Paul Fasi at [paul.fasi@mauicounty.gov](mailto:paul.fasi@mauicounty.gov) or by telephone at (808) 270-7814.

Sincerely,



CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

for WILLIAM SPENCE  
Planning Director

xc: Paul F. Fasi, Staff Planner (PDF)  
Colleen Suyama, Senior Associate, Munekiyo Hiraga  
Project File  
General File

WRS:CIY:PFF:sn

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**MUNEKIYO HIRAGA**

Planning, Project Management, Sustainable Solutions.

Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

William Spence, Director  
Department of Planning  
County of Maui  
One Main Plaza, Suite 315  
2200 Main Street  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

Dear Mr. Spence:

Thank you for your letter of August 20, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project.

On behalf of the Department of Environmental Management (DEM), we appreciate your suggestion that the Makai Hana Landfill site be converted to a retention basin/soccer field. However, the DEM does not have any plans to maintain the area as a retention basin. Further, as a closed landfill site adjacent to an active landfill, encouraging the public to participate in recreational activities in the area would conflict with the operations of the Hana Landfill. It would also present safety issues, and the lack of facilities in the area (i.e. restrooms and parking), would make use of the site as a soccer field unattractive.

William Spence, Director  
January 4, 2016  
Page 2

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at 244-2015.

Very truly yours,

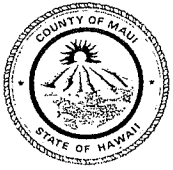


Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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ALAN M. ARAKAWA  
MAYOR

OUR REFERENCE

YOUR REFERENCE

# POLICE DEPARTMENT

## COUNTY OF MAUI

55 MAHALANI STREET  
WAILUKU, HAWAII 96793  
(808) 244-6400  
FAX (808) 244-6411

AUG 27 2015



TIVOLI S. FAAUMU  
CHIEF OF POLICE

DEAN M. RICKARD  
DEPUTY CHIEF OF POLICE

August 20, 2015

Mr. Kyle Ginoza, Director  
Department of Environmental Management  
Attn: Elaine Baker – Solid Waste Division  
County of Maui  
2200 Main Street, Suite 225  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:


SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED MAKAI  
HANA LANDFILL CLEAN-UP AND CLOSURE PROJECT AT TMK (2) 1-3-  
006:012 (POR), HANA, MAUI, HAWAII

This is in response to Munekiyo and Hiraga's letter dated August 3, 2015, requesting comments on the above subject.

Please refer to the enclosed copy of the to/from submitted by Officer Jason Thompson of our School Resource Officer program.

Thank you for giving us the opportunity to comment on this project.

Sincerely,

  
Assistant Chief Victor K. Ramos  
for: TIVOLI S. FAAUMU  
Chief of Police

c: Ms. Colleen Suyama, Munekiyo Hiraga

CONCLUSION:

There are no objections to the progression of the project at this time. Although, it is of utmost importance to be cognizant of any health and safety impacts, directly and indirectly, which may arise from this project and to immediately address and correct these situations when brought to attention. Any proposed road closures to Waikoloa Road should be notified ahead of time to residents in the area and to Emergency Personnel.

Respectfully submitted for your review and approval.

Conc'd.  
[Signature] 8/15

[Signature] 15190  
Jason Thompson E#15190  
Police Officer III, Hana Patrol Division  
08/13/15 @ 0800 Hours

TO : TIVOLI FAAMU, CHIEF OF POLICE, COUNTY OF MAUI  
VIA : CHANNELS  
FROM : JASON THOMPSON, POLICE OFFICER III,  
HANA PATROL DIVISION  
SUBJECT : RESPONSE TO A REQUEST FOR COMMENTS AND  
RECOMMENDATIONS REGARDING THE PROPOSED  
MAKAI HANA LANDFILL CLEAN-UP AND CLOSURE PROJECT

*Victor K. Ramos*  
Victor K. Ramos  
Assistant Chief  
8/10/15

This communication is submitted as a response to a request for comments and recommendations by the Department of Environmental Management and the Munekiyo Hiraga Planning and Management Company, in regards to the following project;

PROJECT	: Makai Hana Landfill Clean-Up and Closure Project
APPLICANT	: County of Maui via Munekiyo Hiraga
TMK	: (2) 1-3-006:012 (por.)
STREET ADDRESS	: Waikoloa Road, Hana
PROJECT DESCRIPTION	: Land fill clean up and closure project.

RESPONSE:

In review of the provided documents, it appears the proposed project is to remove approximately 89,200 cubic yards of rubbish with an additional 10,300 cubic yards of clean soil. All of the removed material will be transferred across Waikoloa Road to the active landfill area.

The proposed actions would mean that large vehicles/trucks would be moving waste a short distance across Waikoloa Road.

Waikoloa Road is a normal two lane roadway utilized to access the Land fill and approximately 20-25 residences in the area. The area is also accessible via a private dirt road that comes off of Uakea Road into the Waikoloa area (widely used by residents and Emergency Personnel). This other dirt road is occasionally closed when the Kawaipapa River runs (under heavy rain).

In the proposal there is does not appear to be any road closure plans that would possibly limit the access of neighborhood residents and or Emergency Vehicles.



**MUNEKIYO HIRAGA**

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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

Tivoli S. Faaumu, Chief  
Maui Police Department  
County of Maui  
55 Mahalani Street  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

---

Dear Chief Faaumu:

Thank you for your letter of August 20, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management (DEM), we acknowledge that at this time there are no plans for road closures to Waikoloa Road. However, should there be a need for road closures in the future DEM will notify your department, residents in the area, and emergency personnel in advance of the closures.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

---

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Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729  
Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233  
www.munekiyo-hiraga.com



ALAN M. ARAKAWA  
Mayor

DAVID C. GOODE  
Director

ROWENA M. DAGDAG-ANDAYA  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955



COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS**

200 SOUTH HIGH STREET, ROOM NO. 434  
WAILUKU, MAUI, HAWAII 96793

August 25, 2015

AUG 31 2015

GLEN A. UENO, P.E., P.L.S.  
Development Services Administration

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

Mr. Kyle Ginoza, Director  
Department of Environmental Management  
2050 Main Street, Suite 1C  
Wailuku, Maui, Hawaii 96793

ATTENTION: Elaine Baker - Solid Waste Division

Dear Mr. Ginoza:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR THE  
PROPOSED MAKAI HANA LANDFILL CLEAN-UP AND  
CLOSURE PROJECT AT HANA, MAUI, HAWAII;  
TMK: (2) 1-3-006:012 (POR.)**

We reviewed the subject application and have no comments at this time.

If you have any questions regarding this memorandum, please call Rowena Dagdag-Andaya at 270-7845.

Sincerely,

A handwritten signature in black ink, appearing to read "David C. Goode", is written over a horizontal line.

DAVID C. GOODE  
Director of Public Works

DCG:RMDA:da

xc: Highways Division  
Engineering Division  
Munekiyo Hiraga

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**MUNEKIYO HIRAGA**

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Michael T. Munekiyo  
PRESIDENT

Karlynn K. Fukuda  
EXECUTIVE VICE PRESIDENT

Mark Alexander Roy  
VICE PRESIDENT

Tessa Munekiyo Ng  
VICE PRESIDENT

January 4, 2016

David Goode, Director  
Department of Public Works  
County of Maui  
200 S. High Street, Room 434  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

---

Dear Mr. Goode:

Thank you for your letter of August 25, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure Project. On behalf of the Department of Environmental Management, we acknowledge your department does not have any comments at this time.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required, please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:lh

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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ALAN M. ARAKAWA  
Mayor



JO ANNE JOHNSON-WINER  
Director  
MARC I. TAKAMORI  
Deputy Director  
Telephone (808) 270-7511

## DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI  
200 South High Street  
Wailuku, Hawaii, USA 96793-2155

August 13, 2015

Ms. Elaine Baker  
Department of Environmental Management  
2200 Main Street, Suite 225  
Wailuku, Maui, Hawaii 96793

Subject: DEA for the Proposed Makai Hana Landfill Clean-Up and Closure Project

Dear Ms. Baker,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Jo Anne Johnson Winer / JAW".

Jo Anne Johnson Winer  
Director



**MUNEKIYO HIRAGA**

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo

PRESIDENT

Karlynn K. Fukuda

EXECUTIVE VICE PRESIDENT

Mark Alexander Roy

VICE PRESIDENT

Tessa Munekiyo Ng

VICE PRESIDENT

January 4, 2016

Jo Anne Johnson Winer, Director  
Department of Transportation  
County of Maui  
200 South High Street  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment for the Proposed Makai Hāna  
Landfill Clean-Up and Closure Project, at TMK (2)1-3-006:012  
(por.) and 007 (por.), Hāna, Maui, Hawai'i

Dear Ms Johnson Winer:

Thank you for your letter of August 13, 2015 responding to our request for comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure project. On behalf of the Department of Environmental Management we acknowledge your department does not have any comments at this time.

Again, thank you for your participation in the Chapter 343, Hawai'i Revised Statutes review process. A copy of your letter will be included in the Final EA. If additional clarification is required please contact me at 244-2015.

Very truly yours,

Colleen Suyama  
Senior Associate

CS:mge

Copy to: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-MEHR  
Clayton Yoshida, Department of Planning, Current Planning

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**JOHN BLUMER-BUELL**

Post Office Box 787, Hana, Hawaii 96713  
 Telephone 248-8972 Email [blubu@hawaii.rr.com](mailto:blubu@hawaii.rr.com)

September 6, 2015

Subject: Comments, questions and requests for information regarding Draft Environmental Assessment for the PROPOSED MAKAI HANA LANDFILL CLEAN-UP AND CLOSURE (TMK (2) 1-3-006:12 (por.) and 007 (por.) )  
 Prepared for: County of Maui, Department of Environmental Management, July, 2015, by MUNEKIYO HIRAGA.

Timely mailed to County of Maui Department of Environmental Management.  
[environmental.mgmt@co.maui.hi.us](mailto:environmental.mgmt@co.maui.hi.us) Attention: Director Kyle Ginoza, Elaine Baker  
[Elaine.Baker@co.maui.hi.us](mailto:Elaine.Baker@co.maui.hi.us) Cc: MUNIDEYO HIRAGA. Attention: Colleen Suyama  
[<colleen@munekiyohiraga.com>](mailto:colleen@munekiyohiraga.com)

Aloha All,

I am writing to express concerns, comments and ask questions for answers regarding the subject Draft EA. I am also writing to express concerns that are shared in spirit with past, present and future generations of Hana residents regarding the environmental conditions and health of historic Kapueokahi (Hana Bay). The unlined and polluting Hana Landfill has ongoing negative impacts on the environment, the health of the community and on Kapueokahi.

**I request an Environmental Impact Statement (EIS) to address the entire spectrum of problems that have been created by the the illegal Hana Landfill.** The Draft EA segments and offers segmented alternative solutions for a small part of the short and long term problems. Therefore, my request for a full EIS and a timely remediation plan for the entire Hana Landfill.

**COMMENTS REGARDING DUE PROCESS FOR THE COMMUNITY IN THE DRAFT EA PROCESS.**

I object that the East-Maui Community has not been adequately noticed regarding the subject Draft Environmental Assessment. The notification list should properly include the communities that have used the landfill over the years. That includes Keanae, Wailuanui, Nahiku, Hana, Kipahulu and Kaupo. It should be noted visiting tourists, including visitors to the Haleakala National Park in Kipahulu, visitors to Hana District state and county parks have also been significant users of the Hana Landfill.

The draft document lists Maui County Council Member Robert Carroll as noticed on page 71. The draft document lists "OTHER" on page 73. #33. John Kahalehoe, Hana Community Association (HCA), P.O. Box 471, Hana, Hawaii, 96713. I went to the State Department of Commerce and Consumer Affairs (DCCA) web site to see if John Kahalehoe currently serves on the HCA Board. The DCCA states, "This business is not in good standing". The correct mailing address for the Hana Community Association is P.O. Box 202, Hana, Hawaii, 96713, not P.O.Box 471. The DCCA lists me as the organization "Agent". I have not served on the HCA board for the past two years. I am not the current agent. So, there remains the question of whether the HCA was actually noticed. In the past, the HCA Board would usually inform the community regarding "Environmental Notices" concerning East-Maui and Hana.

I did not receive any notice from Council Member Robert Carroll, John Kahalehoe or the Hana Community Association. I was informed of the Draft EA by chance. I have had to rearrange my schedule to be able to offer these incomplete comments.

Others that should have properly been consulted are the State of Hawaii recognized Hana Aha Moku Advisory Council, the Hana Business Council, the Kipahulu Community Association, the Kaupo Community Association, Na Moku Aupuni O Ko'olau Hui (Keanae-Wailuanui) and neighbors in the vicinity of the Hana Landfill. It would be appropriate to consult the Hana Queen Ka'ahumanu Society. Kapueokahi (Hana Bay) is in close proximity to the birthplace of Queen Ka'ahumanu in a cave called Puu Kauiki.

Either by rule or law, the Draft EA should be available at the Hana Community School Library. I called the library on Friday, September 4. The capable library staff could not locate the Draft EA. The library has a specific shelf for EA and EIS documents. I called the librarian, Mr. Jeff Smith-Hawzr, on the morning of Tuesday, September 8. He was able to locate the Draft EA. So, interested community members have a few hours to examine the document and submit comments to the County of Maui Department of Environmental Management today.

On Friday, September 4, 2015, I read the Maui News article which stated,

## **"Public input sought on old Hana Landfill"**

September 4, 2015  
The Maui News

"Comments are being sought for a county project to remove waste from the old Hana Landfill to bring it into compliance with federal and state regulations.

According to documents filed with a draft environmental assessment in late July, the county Department of Environmental Management is proposing to remove about 90,000 cubic yards of waste from the old Hana Landfill on the makai side of Waikoloa Road and haul it across the road to the active Hana Landfill.

Materials that can be recycled or reused will be handled accordingly, documents said.

Currently, the budget for the project is \$1 million, though that could change depending on bids received and other factors that will be determined as the start of the project gets closer, said Maui County Communications Director Rod Antone.

A finding of no significant impact is anticipated for the project. Comments will be received until Tuesday.

Comments may be sent to Kyle Ginoza, director of the Department of Environmental Management, Attention: Elaine Baker, Solid Waste Division, County of Maui, 2200 Main St., Suite 225, Wailuku 96793.

The removal of waste will occur over three years using county resources and personnel or contractors.

The waste excavation and removal will be done in a series of small stages to minimize the area of exposed waste. Each stage will include removal of vegetation and cover soil, excavation of waste, removal of recyclable scrap metal, and hauling waste to the active landfill for disposal, documents said.

After the refuse has been removed, the site will be graded, erosion controls will be put in place and the site will be planted with a mixture of grass.

To view the draft environmental assessment, go to [oeqc.doh.hawaii.gov/](http://oeqc.doh.hawaii.gov/), click on Environmental Notice, on archives and on 2010, then search for the Aug. 8 notice."

The Maui News article gave notice just before the three day Labor Day weekend. The notice was not timely. How is anyone in Hana supposed to read the draft document at the closed library on the long Labor Day holiday weekend? They cannot. To compound the problem, many Hana residents do not have computers or Wi-Fi to access on line information.

As a solution, I suggest you republish the Draft EA Notice in the Office of Environmental Quality Control Environmental Bulletin or simply extend the comment period for an additional thirty days, if that is within your legal discretion. Please send copies of the Draft EA via U.S. Certified Mail to the organizations I listed. This would allow community input into the process before, not after the fact. Timely notification and community participation are certainly the legal intent of the Draft EA process. A short thirty day delay to invite in the community will be constructive.

The 1994 Hana Community Plan states on page 14, "Encourage community-based dialogue regarding proposed land use changes in order to avoid unwarranted conflict". A thirty day extension of the comment



period would give the community enough time to adequately respond to the Draft EA.

### **COMMENTS REGARDING THE DRAFT EA DOCUMENT.**

1. It is not honest, ethical, constructive or appropriate for the County of Maui to state, "A finding of no significant impact is anticipated for the project" in advance of community input or possible legal appeals. The County of Maui is BOTH the applicant and approving agency for the Draft EA. **That is clearly a conflict of interest and does not serve the public interests.** In a self serving capacity, the County of Maui has already anticipated a finding of no significant impact. The anticipation and **foregone conclusion** discourage public input into the process and undermines due process itself.

\* As stated in the Draft EA, the County of Maui is not in compliance with Title 40 of the Code of Federal Regulations or Hawaii Administrative Rules. **What are the legal Federal, State and County statutes that legally justify the county ruling on its own Draft EA to try to come into limited legal compliance? What alternative legal entity could make an independent, not foregone, conclusion? Is the Hawaii Environmental Court a possibility? Are there other possibilities?**

\* **What other Federal, State and County laws and regulations need to be addressed now and in the future? What is the anticipated time frame and cost of addressing non-compliance? Please include the costs of all fines that could be imposed on the County of Maui by the State of Hawaii and Federal government.**

\* The County of Maui has fraudulently represented and misrepresented integral parts of the Hana Landfill operations in the past. One specific example is the mining and hauling of soil and cinders to cover the Hana Landfill. Those operations degraded and destroyed parts of the culturally important Olopawa Mountain in Kaeleku. The county refused to disclose the costs, potentially millions of dollars, to the public and taxpayers.

“It is beyond the scope of the EA” was the explanation. That was a dishonest response and an outright lie. The mining operation and hauling were and continue to be an INTEGRAL part of the landfill operation. No question. The county has not taken actions to retroactively assess or repair the damages to this important Hawaiian cultural site and pay the State of Hawaii and Office of Hawaiian Affairs funds for the mined materials. Based upon the history of the landfill operations, the County of Maui cannot be trusted to deal fairly, openly and honestly to resolve and comply with legal issues in relationship to the Draft EA, historical and current Hana Landfill issues. **I request the Draft EA to include plans and a timetable to identify and repair damage to Olopawa Mountain and to finally disclose the actual financial and cultural costs of the mining and hauling operations. That disclosure should include the ongoing costs of hauling in cover material from the other side of the island.**

**2. I request the Draft EA consider and address the issue of spreading tiny fire ants to other parts of the island.** The current hauling of green waste from the Hana Landfill to the other side of the island creates that threat. Tiny fire ants have been reported in Wakiu in close proximity to the Hana Landfill in the recent fall edition of the Hanaside News (Letters to the Editor). There is a major infestation of tiny fire ants in East-Maui. This is well documented in the Maui News and by the Maui Invasive Species Committee (MISC). **Please comprehensively discuss this problem in “Alternatives”.** The hauling and disposal of metal waste creates a similar threat as hauling green waste. The metal waste the Draft EA proposes to recycle on the other side is in close proximity to green waste at the Hana Landfill.

The costs and environment impacts of hauling fill material from the other side of the island to cover the Hana Landfill, the related costs and degradation of historic bridges and road from over the legal weight limit trucks and the return hauling (Hana to the other side) of green waste and metal waste back from Hana as proposed in the Draft EA need to be fully

documented and discussed in an Environmental Impact Statement, not an Environmental Assessment. **I request this information be considered as an “Alternative”. What is the total cost of hauling, damage to the Hana Highway and historic bridges? What is the plan for managing the Hana Landfill if one or more historic bridges structurally fail?**

A full and honest disclosure of total financial, environmental and health costs could show closure and relocation of the Hana Landfill is the most practical, financially responsible and responsible legal approach to the problems.

**3. I request the Draft EA to include a plan for closure of the entire Hana Landfill.** This could certainly reveal that closure of the Hana Landfill is the best financial, environmental and cultural solution to the environmental and health problems created by current unlined and illegal Hana Landfill. Please treat this request as an “Alternative” solution to the Draft EA proposal. **What is the comprehensive plan to address the short and long term problems of the current Hana Landfill? How many more segmented plans and Draft EA’s are anticipated to bring the Hana Landfill into full legal compliance? What are the costs? What future actions will be needed to bring the active dump site into legal compliance?** The Draft EA addresses a segmented legal issue, not long-term comprehensive issues. **Please fully address these issues in “Alternatives”.**

**4. I also request the Draft EA include a plan for relocation of the Hana Landfill to a new site.** This would enable the creation of a lined and safer landfill that would be planned to be in compliance with Federal, State and County laws and regulations. Please treat this request as an “Alternative” solution to the Draft EA proposal.

**5. I request all past Special Management Area (SMA) permit information and applications for the Hana Landfill operations be included as part of the Draft EA information.** Please include all minutes of meetings before the Maui Planning Commission regarding previous SMA applications in the the Draft EA. This is important information to be considered. Especially, information regarding “monitoring” wells. At the last Planning Commission meeting I attended, experts explained how the well depths were not properly calculated and the monitoring data was in question. Please include every well monitoring report since the monitoring wells were installed.

**I request an independent audit of the installation of the monitoring wells and of every monitoring report from the wells be included in the Draft EA.**

**Please include the approved SMA Permit for the proposed leach field at Kapueokahi.** This permit was signed without the knowledge of the Hana Community. As a result of community protests and a public meeting with the County Parks Department, the proposal has been “shelved” and is now in a County Council committee.

**6. I also request clarification of the role of the Maui County Planning Director in approving or denying the SMA permit needed for compliance.** I object to the Maui County Planning Director making a ruling without public testimony and input. The process should include, at a minimum, the Maui Planning Commission and the Hana Advisory Committee to the Maui Planning Commission. **Is there a legal alternative to the Planning Director making SMA decisions on behalf of the county? What are the options to appeal an SMA decision?**

The projected cost of the 3 year project is one million dollars. This should trigger a SMA Major Permit. I object to segmenting the costs over three years to justify a SMA Minor Permit that potentially could be arbitrarily

be approved by the planning director without public hearings or full disclosure.

On page 48 the Draft EA states, "As previously mentioned, a State Land Use Special Use Permit and a County Special Use Permit have been approve for the landfill operations in the Agricultural District. These two (2) permits are valid until 2018". Just so there is no misunderstanding, I oppose any further SMA Permits or Conservation District Use Permits (CDUA) for the Hana Landfill environmental travesty.

Please understand this is not a personal issue. However, the Arakawa Administration is on record as misrepresenting the need for a five million dollar 12" pipeline from Hamoa to Hana. The Hana Community opposed the pipeline for good reasons. First and foremost, there was already redundant systems for fire protection in Hana Town. The pipeline was not needed for fire protection as the mayor stated in the Maui News. This is well documented. Unfortunately, the project created unnecessary conflict in the community. Is it any surprise that many Hana residents, including myself, do not trust the current Arakawa Administration?

Additional problems, well documented in Maui County Council meetings, concerning financial mismanagement by the Department of Environmental Management and misuse of funds by the administration in tearing down the Old Wailuku Post Office raise concerns regarding the credibility of the Department of Environmental Management and the current administration.

It will require absolute honesty, transparency, and full disclosure to address the long term problems created by the Hana Landfill. The Draft EA does not address the issues. **Therefore, I request a full Environmental Impact Statement (EIS) rather than a segmented Draft EA.** I request every issue I have brought forward be addressed in an EIS, not a segmented Draft EA. So there is not misunderstanding, please address every issue I have raised in an EIS. If you are not willing to create an EIS, I request every issue I have raised be addressed in the Draft EA.

7. I served as a Hana District member of the 25 member Maui General Plan Advisory Committee (GPAC). We specifically discussed the Hana Landfill situation with Maui County solid waste representatives. We were told the Hana Landfill would close soon, in the near future, and would become a “satellite” dump. **Please enclose the entire minutes of that meeting so the conversation is accurately represented.** The minutes are available from the Maui County Long-Term Planning Division.

In the Draft EA, the Hana Landfill is projected to be usable until 2050. See page 30, “The active landfill .....is projected to be able to accommodate waste disposal to the year 2050”. That is NOT what the GPAC or myself were lead to believe. **Please include the date and precise plan for complete closure of the Hana Landfill operations.** Everyone understands the recycling part of the operation will be perennial. **Is the County of Maui looking at a possible new site for a Hana Landfill? A new landfill could be lined and in compliance with County, State and Federal regulations. Please estimate the costs of a new Hana Landfill that would be in full compliance with environmental laws.**

8. The title of the Draft EA “PROPOSED MAKAI HANA LANDFILL CLEAN-UP AND CLOSURE” implies the landfill is segmented and not one landfill. The Draft EA needs to examine **every** Hana Landfill issue comprehensively, not in segmented approach. **That will best be achieved in an Environmental Impact Statement.** The illegal makai portion of the Hana Landfill was not separate from the entire Hana Landfill operation. At the time the makai portion of the entire landfill operation was closed, it was in active use for motor vehicle disposal, appliance disposal, green waste disposal & composting, battery recycling, construction materials disposal, glass recycling, propane cylinder storage and recycling and so forth.

9. The Draft EA interpretations of the Hana Community Plan are inaccurate and do not serve the best interests or intent of the community. I

would go through the interpretations point by point, but do not have enough time to do so. Hopefully, there will be a thirty day extension to allow for additional community input. For your information, I actively participated in the creation of the 1994 Hana Community Plan Ordinance as a community member and as a member of the Hana Advisory Committee to the Maui Planning Commission.

- \* On page 52, the Draft EA quotes the 1994 Hana Community Plan Ordinance, 4. **Coastal Ecosystems. Objective**, “Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impact on all coastal ecosystems”. **Policies**: Exercise an overall conservation ethic, and practice stewardship in the protection, use and development of marine coastal resources”. The Draft EA is information and **Response**: are contrary to the identified Objectives and Policies from (A) to (E).

The response is not credible. I raise many objections to this part of the Draft EA as well as the entire self serving interpretation of the Hana Community Plan.

- \* The County of Maui has made no effort to directly monitor the brackish ponds and marine life in those ponds around and in the vicinity of the Hana Landfill. The County of Maui has made no effort to directly monitor water quality and marine life in Kapueokahi. In fact, the county resisted water sampling and fish tissue sampling analysis during the last hearing I attended before the Maui Planning Commission. The brackish ponds are an easy and accessible way to carry out environmental sampling, if you have the will. The County of Maui has not had the will to comprehensively monitor the Hana Landfill. The monitoring well information is very questionable.
- \* The credible organization Maui Tomorrow represented by former Executive Director Irene Bowie requested not only water sampling of Kapueokahi and the brackish ponds but also sampling and testing of fish tissue gathered in Kapueokahi and the brackish ponds.

**Please include comprehensive survey information in the Draft EA to identify all the brackish ponds in the vicinity of the Hana Landfill.** A good start in compiling the baseline information is a map included as part of the PK-4 Conditional Park Zoning Conditions that were approved for a Hana Golf Course and Country Club. That zoning expired, but the records, maps and 19 conditions of zoning are available from the County of Maui or me.

**Please estimate the costs of an ongoing comprehensive monitoring of water from all areas of Kapueokahi. Please estimate the costs of an ongoing comprehensive monitoring of fish tissue from all areas of Kapuokahi.**

**Please estimate the costs of an ongoing comprehensive monitoring of brackish water from all brackish ponds in the vicinity of the Hana Landfill. Please estimate the costs of a ongoing comprehensive monitoring of fish tissue from all the ponds. Please include this as part of “Alternatives” to the Draft EA proposal.**

10. The Draft EA excludes an extensive amount of relevant information. For example, page 33 of the draft document states in part under, “**b. Potential Impacts and Mitigative Measures**”, “The proposed project is not anticipated to adversely impact individual wastewater services in the East Maui region. No improvements or expansion to the wastewater is anticipated”. Unfortunately, the Draft EA does not recognize the lack of the much needed master wastewater plan as called for in the 1994 Hana Community Plan. The 1994 Hana Community Plan Ordinance states on page 25, “Prepare a domestic water system master plan and a wastewater system master plan for the Hana region”.

**Please comprehensively address the issues, particularly financial issues, of preparing the long overdue “wastewater master plan for the Hana Region”.** This issue is directly tied to the health of Kapueokahi (Hana Bay) and the Hana Landfill. Currently, there are more than a



hundred cesspools, an injection well and an unlined dump draining into Kaapueokahi.

Please note the County of Maui has not prepared the long overdue domestic water plan for the Hana Region.

**Please document and explain the waterline proposed by Council Member Robert Carroll in the last year or so that would serve the Hana Landfill. What are the projected costs?** That proposed pipeline went from Wakiu past the Hana Landfill. The records and minutes are in the county council minutes. This proposal is not considered in the Draft EA.

**11. Please include information on global warming, sea level rise and possible impacts upon the Hana Landfill.**

**12. The Draft EA examines a segmented remediation of environmental damage at the makai portion of the Hana Landfill. What is the remediation plan and expense of the “active” portion of the landfill? What are the Federal, State and County laws that direct the full remediation of the entire Hana Landfill?**

**13. Page 52 of the Draft EA quotes the Hana Community Plan, 3. Scenic and Open Space Resources, Objective, “protect, preserve and where desirable, restore or improve the quality of coastal scenic and open space resources”. The existing Hana Landfill has destroyed and continues to destroy scenic resources and open space resources. The Hana Landfill operation has seriously damaged Olopawa Mountain and historical drainage in the Kaeleku area. Please produce a remediation plan to address Olopawa Mountain damage and drainage issues in Kaeleku as part of the Draft EA.** Not only has the Hana Landfill operation damaged the culturally significant and important visual open space Olopawa

Mountain, the Hana Landfill operation is creating a new mountain at the current site. **Please explain the current height of the new mountain and the current planned height of the new mountain.** This is becoming more and more visible. Please include photos taken from the Fagan Cross area above the former Hotel Hana-Maui.

**Please explain in detail the weight and height that will be added to the “active” Hana Landfill by moving 89,200 cubic yards and an additional 10,300 cubic yards of clean soil to the active site. Where will that volume of “clean soil” come from?**

**I request certified reports, not estimates or guesstimates, of the daily weight and volume added to the entire landfill site since 1969. Please include the controlling Federal, State and County regulations and laws that allowed an unlined dump in the first place and documentation the landfill has complied with any weight and volume restrictions since 1969.**

Albert Einstein said, “The definition of insanity is doing the same thing over and over and expecting different results”. I hope you will keep that in mind as you consider my comments. If we are to constructively address and solve the Hana Landfill issues we need to consider the “big picture”, the entire scope of the situation.

Thank you for your careful consideration.

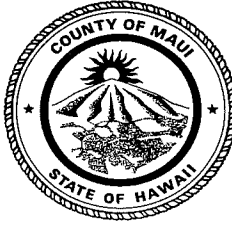
Sincerely yours,

John Blumer-Buell, Hana

ALAN M. ARAKAWA  
Mayor

STEWART STANT  
Director

MICHAEL M. MIYAMOTO  
Deputy Director



MICHAEL RATTE  
Solid Waste Division

ERIC NAKAGAWA, P.E.  
Wastewater Reclamation Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

2050 MAIN STREET, SUITE 1C  
WAILUKU, MAUI, HAWAII 96793

December 29, 2015

Mr. John Blumer-Buell  
P.O. Box 787  
Hāna, Hawaii 96713

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED MĀKAI HĀNA  
LANDFILL CLEAN-UP AND CLOSURE PROJECT, AT TMK (2)1-3-006:012(POR)  
AND 007(POR), HANA, MAUI, HAWAII**

Dear Mr. Blumer-Buell:

Thank you for your letter of September 6, 2015 providing comments on the Draft Environmental Assessment (EA) for the proposed Makai Hāna Landfill Clean-Up and Closure project. We offer the following information, which addresses your comments in the order listed in your letter:

**Comment 1:** *I request an Environmental Impact Statement (EIS) to address the entire spectrum of problems that have been created by the illegal Hana Landfill. The Draft EA segments and offers segmented alternative solutions for a small part of the short and long term problems. Therefore, my request for a full EIS and a timely remediation plan for the entire Hana Landfill.*

**Response:** In response to your comments we provide the following clarification regarding the active Hāna Landfill site. It is a permitted landfill regulated by the State of Hawaii Department of Health (DOH). The active landfill has been in existence since 1969 when the Board of Land and Natural Resources (BLNR) granted a right of entry to the County of Maui and later in 1984 transferred the property to the County through Executive Order No. 3304. Further, a Final EA was accepted and a Finding of No Significant Impact (FONSI) issued by the County for the expansion of the landfill site in 2007 to provide a buffer zone for the active Hāna Landfill. The 2007 EA evaluated the then existing landfill and the proposed expansion to provide a buffer zone for the active Hāna Landfill.

The proposed clean-up and closure project is limited to the removal and disposal of waste materials from the site of the inactive Makai Hāna Landfill. Once completed, the Final EA for this specific project will be reviewed by the Department of Environmental Management (DEM) and a decision rendered as to if the proposed action qualifies as a FONSI or if an Environmental Impact Statement (EIS) is warranted based on the presence of potential significant impacts.

**COMMENTS REGARDING DUE PROCESS FOR THE COMMUNITY IN THE DRAFT EA PROCESS.**

**Comment 2:** *I object that the East-Maui Community has not been adequately noticed regarding the subject Draft Environmental Assessment. The notification list should properly include the communities that have used the landfill over the years. That includes Keanae, Wailuanui, Nahiku, Hana, Kipahulu and Kaupo. It should be noted visiting tourists, including visitors to the Haleakala National Park in Kipahulu, visitors to Hana District State and County parks have also been significant users of the Hana Landfill.*

*The draft document lists Maui County Council Member Robert Carroll as noticed on page 71. The draft document lists "OTHER" on page 73. #33. John Kahalehoe, Hana Community Association (HCA), P.O. Box 471, Hana, Hawaii, 96713. I went to the State Department of Commerce and Consumer Affairs (DCCA) website to see if John Kahalehoe currently serves on the HCA Board. The DCCA states, "This business is not in good standing". The correct mailing address for the Hana Community Association is P.O. Box 202, Hana, Hawaii, 96713 not P.O. Box 471. The DCCA lists me as the organization "Agent". I have not served on the HCA board for the past two years. I am not the current agent. So, there remains the question of whether the HCA was actually noticed. In the past, the HCA Board would usually inform the community regarding "Environmental Notices" concerning East-Maui and Hana.*

*I did not receive any notice from Council Member Robert Carroll, John Kahalehoe or the Hana Community Association. I was informed of the Draft EA by chance.*

**Response:** We note your concern regarding community notification of the availability of the Draft EA. The Hāna Community Association (HCA) is known as being representative of the Hāna community including the outlying areas of Keanae, Wailuanui, Nāhiku, Kīpahulu and Kaupo. As such, the Draft EA was mailed to John Kahalehoe of the HCA at the last known mailing address of the HCA on August 5, 2015. As the mailing was not returned to our consultant we assumed the HCA was in receipt of the Draft EA. Also, at the same time a copy was mailed to Councilmember Robert Carroll.

Further, the Draft EA was published in the Office of Environmental Quality Control's (OEQC) Environmental Notice on August 8, 2015, which provides public notification on all environmental review documents prepared in the State of Hawaii to those who may be interested in providing comments on a particular proposed project. A copy of the Draft EA was also mailed to the Hāna Public and School Library on August 6, 2015 to allow members within the Hāna community to review a hard copy of the document.

A hard copy of the Draft EA was also provided to you on August 20, 2015 in response to your request. In consideration of the foregoing, the DEM has provided notification of the availability of the Draft EA in accordance with the applicable provisions of HRS, Chapter 343.

**Comment 3:** *Others that should have properly been consulted are the State of Hawaii recognized Hana Aha Moku Advisory Council, the Hana Business Council, the Kipahulu Community Association, the Kaupo Community Association, Na Moku Aupuni O Koolau Hui (Keane-Wailuanui) and neighbors in the vicinity of the Hana Landfill. It would be appropriate to consult the Hana Queen Ka'ahumanu Society. Kapueokahi (Hana Bay) is in close proximity to the birthplace of Queen Ka'ahumanu in a cave called Puu Kauiki.*

**Response:** We note your comment. Please refer to our response to comment No. 2.

**Comment 4:** *Either by rule or law, the Draft EA should be available at the Hana Community School Library. I called the library on Friday, September 4. The capable library staff could not locate the Draft EA. The library has a specific shelf for EA and EIS documents. I called*

*the librarian, Mr. Jeff Smith-Hawzr, on the morning of Tuesday, September 8. He was able to locate the Draft EA. So, interested community members have a few hours to examine the document and submit comments to the County of Maui Department of Environmental Management today.*

**Response:** According to the State Library System the nearest library is the Hāna Public and School Library located at 4111 Hāna Highway, Hāna, Hawaii. A hard copy of the Draft EA was mailed to this address on August 6, 2015 ahead of the publication in the OEQC Environmental Notice. According to your letter the librarian was eventually able to find the Draft EA. It is unfortunate that the document was not readily available for your review. However, as requested a hard copy was mailed to you upon your request. We did not receive any additional requests or queries from other members of community.

### **COMMENTS REGARDING THE DRAFT EA DOCUMENT**

**Comment 5:** *It is not honest, ethical, constructive or appropriate for the County of Maui to state, "A finding of no significant impact is anticipated for the project" in advance of community input or possible legal appeals. The County of Maui is BOTH the applicant and approving agency for the Draft EA. **That is clearly a conflict of interest and does not serve the public interests.** In a self serving capacity, the County of Maui has already anticipated a finding of no significant impact. The anticipation and **foregone conclusion** discourage public input into the process and undermines due process itself.*

- *As stated in the Draft EA the County of Maui is not in compliance with Title 40 of the Code of Federal Regulations or Hawaii Administrative Rules. **What are the legal Federal, State and County statutes that legally justify the county ruling on its own Draft EA to try to come into limited legal compliance? What alternative legal entity could make an independent, not foregone, conclusion? Is the Hawaii Environmental Court a possibility? Are there other possibilities?***

- ***What other Federal, State and County laws and regulations need to be addressed now and in the future? What is the anticipated time frame and cost of addressing non-compliance? Please include the costs of all fines that could be imposed (sic) on the County of Maui by the State of Hawaii and Federal government.***

- *The County of Maui has fraudulently represented and misrepresented integral parts of the Hana Landfill operations in the past. One specific example is the mining and hauling of soil and cinders to cover the Hana Landfill. Those operations degraded and destroyed parts of the culturally important Olopawa Mountain in Kaeleku. The county refused to disclose the costs, potentially millions of dollars, to the public and taxpayers.*

*"It is beyond the scope of the EA" was the explanation. That was a dishonest response and an outright lie. The mining operation and hauling were and continue to be an INTEGRAL part of the landfill operation. No question. The county has not taken actions to retroactively assess or repair the damages to this important Hawaiian cultural site and pay the State of Hawaii and Office of Hawaiian Affairs funds for the mined materials. Based upon the history of the landfill operations, the County of Maui cannot be trusted to deal fairly, openly, and honestly to resolve and comply with legal issues in relationship to the Draft EA, historical and current Hana landfill issues. **I request the Draft EA to include plans and a timetable to identify and repair damage to Olopawa Mountain and to finally disclose the actual financial and cultural costs of the mining and hauling operations. That disclosure should include the ongoing costs of hauling in cover material from the other side of the island.***

**Response:** Pursuant to Title 11 Department of Health, Chapter 200 Environmental Impact Statement Rules, Hawai'i Administrative Rules (HAR), Section 11-200-4, for agency actions by the County of Maui the final authority to make a determination is "the mayor, or an authorized representative, of the respective county whenever an action proposes only the use of county lands or county funds."

In line with common practice for environmental review documentation for County projects, the mayor has designated the Director of the Department of Environmental Management (DEM) as the authorized representative for the processing of the EA for the subject project.

Further, the Anticipated Finding of No Significant Impact (A-FONSI) is based on the information and assessment of potential impacts provided in the Draft EA. The A-FONSI does not mean that a Finding of No Significant Impact (FONSI) determination will be issued. As comments are received from the agencies and the public, the comments will be addressed and, as may be appropriate, mitigation measures proposed to minimize potential impacts associated with the proposed action. Only after it is determined that there will not be a significant impact due to the proposed action can a FONSI determination be issued.

The County of Maui is working cooperatively with the DOH which represents the Environmental Protection Agency (EPA) to comply with the provisions of Title 40 of the Code of Federal Regulations (CFR). The proposed clean-up and closure plan addresses compliance to the CFR. Due to our good faith efforts to comply with the CFR we do not anticipate the issuance of fines or penalties by HDOH and the EPA at this time.

It is unfortunate that you believe the County of Maui has not been transparent in its dealings regarding the Hāna Landfill operations. As noted previously, the active Hāna Landfill operations are being undertaken in compliance with DOH and EPA requirements, including the hauling of soil and cinder from Olopawa. The removal of soil and cinder was approved by the Board of Land and Natural Resources (BLNR) in 1976 and is still valid.

**Comment 6:** *I request the Draft EA consider and address the issue of spreading tiny fire ants to other parts of the island. The current hauling of green waste from the Hana Landfill to the other side of the island creates that threat. Tiny fire ants have been reported in Waiuku in close proximity to the Hana Landfill in the recent fall edition of the Hanaside News (Letters to the Editor). There is a major infestation of tiny fire ants in East-Maui. This is well documented in the Maui News and by the Maui Invasive Species Committee (MISC). Please comprehensively discuss this problem in "Alternatives". The hauling and disposal of metal waste creates a similar threat as hauling green waste. The metal waste the Draft EA proposes to recycle on the other side is in close proximity to green waste at the Hana Landfill.*

*The costs and environment impacts of hauling fill material from the other side of the island to cover the Hana Landfill, the related costs and degradation of historic bridges and road from over the legal weight limit trucks and the return hauling (Hana to the other side) of green waste and metal waste back from Hana as proposed in the Draft EA need to be fully documented and discussed in an Environmental Impact Statement, not an Environmental Assessment. I request this information be considered as an "Alternative". What is the total cost of hauling, damage to the Hana Highway and historic bridges? What is the plan for managing the Hana Landfill if one or more historic bridges structurally fail?*

*A full and honest disclosure of total financial, environmental and health costs could show closure and relocation of the Hana Landfill is the most practical, financially responsible and responsible legal approach to the problems.*

**Response:** Currently the Hāna Landfill does not have an infestation of Little Fire Ants. The County of Maui continues to work cooperatively with the State of Hawaii Department of Agriculture and the Maui Invasive Species Committee (MISC) to control known infestations on the island of Maui. Should the Little Fire Ant be discovered at the operating Hāna Landfill in the future, the DEM will initiate the appropriate protocols to control and get rid of the ants.

In regards to your comment specific to the Makai Hāna Landfill, all removed metal waste will be inspected for the Little Fire Ant before it is hauled to a recycling center. Should the Little Fire Ant be identified in the waste, the DEM will initiate all appropriate protocols necessary to control and get rid of the ants prior to the transportation of the waste.

As noted previously, the proposed project is limited in scope to the clean-up and closure of the Makai Hāna Landfill. This project will be conducted in small phases over an estimated three (3) year period and will not require hauling fill material between central and east Maui. As such, this is not being considered as a potential Alternative in the Final EA for the project.

**Comment 7:** *I request the Draft EA to include a plan for closure of the entire Hana Landfill. This could certainly reveal that closure of the Hana Landfill is the best financial, environmental and cultural solution to the environmental and health problems created by current unlined and illegal Hana Landfill. Please treat this request as an "Alternative" solution to the Draft EA proposal. What is the comprehensive plan to address the short and long term problems of the current Hana Landfill? How many more segmented plans and Draft EA's are anticipated to bring the Hana Landfill into full legal compliance? What are the costs? What future actions will be needed to bring the active dump site into legal compliance? The Draft EA addresses a segmented legal issue, not long-term comprehensive issues. Please fully address these issues in "Alternatives".*

**Response:** We note your comment requesting a closure plan for the entire Hāna landfill. As noted, the proposed project is limited to the closure and clean-up on the Makai Hāna Landfill which is separate from the currently active Hāna Landfill site. The DEM does not have any future plans to close or relocate the active Hāna Landfill. Given the limited scope of this proposed project, the alternatives chapter of the Final EA will not include a discussion of the relocation or closure of the Hāna Landfill or present a plan for closure of the entire Hāna Landfill given that this is not applicable to the proposed action at hand. The Makai Hāna Landfill is separate from the active Hāna Landfill. Once closure is completed there will no longer be a Makai Hāna Landfill.

Also, as previously noted the active Hāna Landfill is permitted and regulated by the DOH. Compliance with the provisions of Title 40 of the CFR noted in the Draft EA is for the clean closure of the Makai Hāna Landfill.

**Comment 8:** *I also request the Draft EA include a plan for relocation of the Hana Landfill to a new site. This would enable the creation of a lined and safer landfill that would be planned to be in compliance with Federal, State and County laws and regulations. Please treat this request as an "Alternative" solution to the Draft EA proposal.*

**Response:** As previously noted the proposed action is limited in scope to the closure and clean-up of the Makai Hāna Landfill. The DEM does not currently have any plans to relocate the active Hāna Landfill and, as such, has not included the discussion of a relocation alternative in the Alternatives Chapter of the EA.

**Comment 9:** *I request all past Special Management Area (SMA) permit information and applications for the Hana Landfill operations be included as part of the Draft EA information. Please include all minutes of meetings before the Maui Planning Commission regarding previous SMA applications in the the (sic) Draft EA. This is important information to be considered. Especially, information regarding "monitoring" wells. At the last Planning Commission meeting I attended, experts explained how the well depths were not properly calculated and the monitoring data was in question. Please include every well monitoring report since the monitoring wells were installed.*

*I request an independent audit of the installation of the monitoring wells and of every monitoring report from the wells be included in the Draft EA.*

*Please include the approved SMA Permit for the proposed leach field at Kapueokahi. This permit was signed without the knowledge of the Hana Community. As a result of community protests and a public meeting with the County Parks Department, the proposal has been "shelved" and is now in a County Council committee.*

**Response:** As previously noted the Makai Hāna Landfill is separate from the active Hāna Landfill. As such, it is not necessary to include previous SMA permits issued for the active Hāna Landfill in the Draft EA.

The groundwater monitoring well reports are a requirement of the active Hāna Landfill. The reports are filed with the DOH. Given the limited scope of the proposed closure and clean-up project, the inclusion of the information requested in your comment does not add value to the analysis of the potential impacts associated with the proposed action.

As noted in your comments the SMA Permit for the leach field at Kapueokahi was proposed by the Department of Parks and Recreation at Hāna Bay and not at the Hāna Landfill site by the DEM. As such, the DEM will not be including this information in the Final EA as it is not related to the proposed action being assessed.

**Comment No. 10:** *I also request clarification of the role of the Maui County Planning Director in approving or denying the SMA permit needed for compliance. I object to the Maui County Planning Director making a ruling without public testimony and input. The process should include, at a minimum, the Maui Planning Commission and the Hana Advisory Committee to the Maui Planning Commission. Is there a legal alternative to the Planning Director making SMA decisions on behalf of the county? What are the options to appeal an SMA decision?*

*The projected cost of the 3 year project is one million dollars. This should trigger a SMA Major Permit. I object to segmenting the costs over three years to justify a SMA Minor Permit that potentially could be arbitrarily be approved by the planning director without public hearings or full disclosure.*

*On page 48 the Draft EA states, "As previously mentioned, a State Land Use Special Use Permit and a County Special Use Permit have been approve (sic) for the landfill operations in the Agricultural District. These two (2) permits are valid until 2018". Just so there is no misunderstanding, I oppose any further SMA Permits or Conservation District Use Permits (CDUA) for the Hana Landfill environmental travesty.*



*Please understand this is not a personal issue. However, the Arakawa Administration is on record as misrepresenting the need for a five million dollar 12" pipeline from Hamoa to Hana. The Hana Community opposed the pipeline for good reasons. First and foremost, there was (sic) already redundant systems for fire protection in Hana Town. The pipeline was not needed for fire protection as the mayor stated in the Maui News. This is well documented. Unfortunately, the project created unnecessary conflict in the community. Is it any surprise that many Hana residents, including myself, do not trust the current Arakawa Administration?*

*Additional problems, well documented in Maui County Council meetings, concerning financial mismanagement by the Department of Environmental Management and misuse of funds by the administration in tearing down the Old Wailuku Post Office raise concerns regarding the credibility of the Department of Environmental Management and the current administration.*

*It will require absolute honesty, transparency, and full disclosure to address the long term problems created by the Hana Landfill. The Draft EA does not address the issues. **Therefore, I request a full Environmental Impact Statement (EIS) rather than a segmented Draft EA.** I request every issue I have brought forward be addressed in an EIS, not a segmented Draft EA. So there is not misunderstanding, please address every issue I have raised in an EIS. If you are not willing to create an EIS, I request every issue I have raised be addressed in the Draft EA.*

**Response:** We note your comments regarding SMA permitting for the proposed closure and clean-up project. A SMA application has not yet been filed with the Department of Planning for this project. DEM will coordinate with the Planning Director to confirm applicable SMA permitting requirements ahead of filing an application.

As previously noted herein, many of your comments pertain to the active Hāna Landfill and not the inactive Makai Hāna Landfill. The proposed project is limited in scope to the proposed closure and clean-up of the Makai Hāna Landfill.

Once completed, the Final EA for this specific project will be reviewed by the DEM and a decision rendered as to if the proposed action qualifies as a FONSI or if an Environmental Impact Statement (EIS) is warranted based on the presence of potential significant impacts.

**Comment No. 11:** *I served as a Hana District member of the 25 member Maui General Plan Advisory Committee (GPAC). We specifically discussed the Hana Landfill situation with Maui County solid waste representatives. We were told the Hana Landfill would close soon, in the near future, and would become a "satellite" dump. **Please enclose the entire minutes of that meeting so the conversation is accurately represented.** The minutes are available from the Maui County Long-Term Planning Division.*

*In the Draft EA, the Hana Landfill is projected to be usable until 2050. See page 30, "The active landfill...is projected to be able to accommodate waste disposal to the year 2050". That is NOT what the GPAC or myself were lead (sic) to believe. **Please include the date and precise plan for complete closure of the Hana Landfill operations.** Everyone understands the recycling part of the operation will be perennial. **Is the County of Maui looking at a possible new site for a Hana Landfill? A new landfill could be lined and in***

***compliance with County, State and Federal regulations. Please estimate the costs of a new Hana Landfill that would be in full compliance with environmental laws.***

**Response:** Although at the time of the GPAC meetings in 2009 the DEM may have been considering establishing a “satellite dump”, this is no longer the current plans of the DEM. The DEM will be retaining the active Hāna Landfill to the projected year 2050. As previously noted, the DEM has no plans to close or relocate the active Hāna Landfill.

**Comment No. 12:** *The title of the Draft EA “PROPOSED MAKAI HANA LANDFILL CLEAN-UP AND CLOSURE” implies the landfill is segmented and not one landfill. The Draft EA needs to examine **every** Hana Landfill issue comprehensively, not in segmented approach. **That will best be achieved in an Environmental Impact Statement.** The illegal makai portion of the Hana Landfill was not separate from the entire Hana Landfill operation. At the time the makai portion of the entire landfill operation was closed, it was inactive use for motor vehicle disposal, appliance disposal, green waste disposal & composting, battery recycling, construction materials disposal, glass recycling, propane cylinder storage and recycling and so forth.*

**Response:** We note your comment regarding the Hāna landfill property. As previously noted, the proposed action is limited to the proposed closure and clean-up of the Makai Hāna Landfill. This project is being undertaken to comply with current HDOH and EPA requirements.

As part of the clean-up and closure process a Final Closure Plan (Plan) was prepared and included as Appendix B of the Draft EA. The Plan included field investigation test pits to determine the limits of the waste as well as the characteristics of the waste. The investigation noted the disposal of automobile parts, equipment, batteries, tires, wood, metals, plastics, and other household trash. During the clean-up and closure process appropriate disposal of these waste materials will be implemented.

Once completed, the Final EA for this specific project will be reviewed by the DEM and a decision rendered as to if the proposed action qualifies as a FONSI or if an Environmental Impact Statement (EIS) is warranted based on the presence of potential significant impacts.

**Comment No. 13:** *The Draft EA interpretations of the Hana Community Plan are inaccurate and do not serve the best interests or intent of the community. I would go through the interpretations point by point, but do not have enough time to do so. Hopefully, there will be a thirty day extension to allow for additional community input. For your information, I actively participated in the creation of the 1994 Hana Community Plan Ordinance as a community member and as a member of the Hana Advisory Committee to the Maui Planning Commission.*

- *On page 52, the Draft EA quotes the 1994 Hana Community Plan Ordinance, 4. **Coastal Ecosystems. Objective**, “Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impact on all coastal ecosystems”. **Policies:** Exercise an overall conservation ethic, and practice stewardship in the protection, use and development of marine coastal resources”. The Draft EA is information and **Response:** are contrary to the identified Objectives and Policies from (A) to (E).*

*The response is not credible. I raise many objections to this part of the Draft EA as well as the entire self serving interpretation of the Hana Community Plan.*

- *The County of Maui has made no effort to directly monitor the brackish ponds and marine life in those ponds around and in the vicinity of the Hana Landfill. The County of Maui has made no effort to directly monitor water quality and marine life in Kapueokahi. In fact, the county resisted water sampling and fish tissue sampling analysis during the last hearing I attended before the Maui Planning Commission. The brackish ponds are an easy and accessible way to carry out environmental sampling, if you have the will. The County of Maui has not had the will to comprehensively monitor the Hana Landfill. The monitoring well information is very questionable.*

*The credible organization Maui Tomorrow represented by former Executive Director Irene Bowie requested not only water sampling of Kapueokahi and the brackish ponds but also sampling and testing of fish tissue gathered in Kapueokahi and the brackish ponds.*

***Please include comprehensive survey information in the Draft EA to identify all the brackish ponds in the vicinity of the Hana Landfill. A good start in compiling the baseline information is a map included as part of the PK-4 Conditional Park Zoning Conditions that were approved for a Hana Golf Course and Country Club. That zoning expired, but the records, maps and 19 conditions of zoning are available from the County of Maui or me.***

***Please estimate the costs of an ongoing comprehensive monitoring of water from all areas of Kapueokahi. Please estimate the costs of an ongoing comprehensive monitoring of fish tissue from all areas of Kapuokahi.***

***Please estimate the costs of an ongoing comprehensive monitoring of brackish water from all brackish ponds in the vicinity of the Hana Landfill. Please estimate the costs of a ongoing comprehensive monitoring of fish tissue from all the ponds. Please include this as part of "Alternatives" to the Draft EA proposal.***

**Response:** To clarify your comments on coastal ecosystems, page 52 of the Draft EA are objectives and policies of the Hawai'i Coastal Zone Management Program. As noted in our response Best Management Practices (BMPs) will be utilized to ensure that activities associated with the proposed closure and clean-up of the inactive Makai Hāna Landfill do not adversely impact coastal ecosystems during the project.

We are unaware of any brackish or anchialine ponds within the Hāna Landfill property. According to the Department of Land and Natural Resources' (DLNR) information on anchialine ponds, the nearest known anchialine pond is at Wainapanapa.

Kapueokahi mentioned in your letter is located along Hāna Bay and involved a proposal by the Department of Parks and Recreation (DPR) for improvements at Helene Hall. Your comments regarding water quality and tissue sampling are related to the DPR's proposal to install leach fields at Kapueokahi Beach adjacent to Hāna Bay for Helene Hall. These comments are not specific to the Hāna Landfill property which is located further inland from Hāna Bay and separated from the bay by Waikoloa Road. As such, the DEM will not be including the requested information in the Final EA for this project.

**Comment 14:** *The Draft EA excludes an extensive amount of relevant information. For example, page 33 of the draft document states in part under, "**b. Potential Impacts and Mitigative Measures**", "The proposed project is not anticipated to adversely impact individual wastewater services in the East Maui region. No improvements or expansion to the waste water is anticipated". Unfortunately, the Draft EA does not*

*recognize the lack of the much needed master wastewater plan as called for in the 1994 Hana Community Plan. The 1994 Hana Community Plan Ordinance states on page 25, "Prepare a domestic water system master plan and a wastewater system master plan for the Hana region".*

***Please comprehensively address the issues, particularly financial issues, of preparing the long overdue "wastewater master plan for the Hana Region". This issue is directly tied to the health of Kapueokahi (Hana Bay) and the Hana Landfill. Currently, there are more than a hundred cesspools, an injection well and an unlined dump draining into Kapueokahi.***

*Please note the County of Maui has not prepared the long overdue domestic water plan for the Hana Region.*

***Please document and explain the waterline proposed by Council Member Robert Carroll in the last year or so that would serve the Hana Landfill. What are the projected costs? That proposed pipeline went from Wakiu past the Hana Landfill. The records and minutes are in the county council minutes. This proposal is not considered in the Draft EA.***

**Response:** Your comments regarding a wastewater master plan and domestic water system master plan as recommended in the 1994 Hana Community Plan is a region-wide comment and not directly applicable to the Hāna Landfill property which is not serviced by a wastewater or water system. As mentioned previously, the action being assessed in the EA is the proposed clean-up and closure of the inactive Makai Hāna Landfill. As noted in the Draft EA, this specific action does not require any improvements or expansion involving wastewater or domestic water systems.

At the time of Councilmember Robert Carroll's request in 2014 the Department of Water Supply was in the process of installing a 2,800 feet waterline on Waikoloa Road. Councilmember Carroll had requested extending the waterline to the Hāna Landfill property. Our understanding is that that particular request was filed due to cost. As such, there is no current proposal under review to extend the waterline to the Hāna Landfill property.

**Comment 15:** *Please include information on global warming, sea level rise and possible impacts upon the Hana Landfill.*

**Response:** According to the University of Hawaii Sea Grant College Program, "Sea Level Rise and Coastal Land Use in Hawaii: A Policy Tool Kit for State and Local Governments, 2011" report, sea levels are rising due to climate change. According to the report, it recommends using sea level rise benchmarks of 1-foot by year 2050 and 3-feet by 2100 for Hawaii. The inactive Makai Hāna Landfill is between 30 to 63 feet above mean sea level and will not be affected by the projected 1-foot rise by 2050 or the 3-foot rise by 2100. This information will be included in the Final EA for the project.

**Comment 16:** *The Draft EA examines a segmented remediation of environmental damage at the makai portion of the Hana Landfill. What is the remediation plan and expense of the "active" portion of the landfill? What are the Federal, State and County laws that direct the full remediation of the entire Hana Landfill?*

**Response:** As noted previously, the proposed action is limited in scope to the closure and clean-up of the inactive Makai Hāna Landfill site. The DEM does not currently have plans for closure of the active Hāna landfill site. The closure of the active Hāna landfill is not considered to be a reasonably foreseeable action. As such, the assessment provided in the EA is confined to presenting an analysis of the potential impacts associated with the proposed clean-up and closure action for the Makai Hāna Landfill.

**Comment 17:** *Page 52 of the Draft EA quotes the Hana Community Plan, 3. Scenic and Open Space Resources, Objective, "protect, preserve and where desirable, restore or improve the quality of coastal scenic and open space resources". The existing Hana Landfill has destroyed and continues to destroy scenic resources and open space resources. The Hana Landfill operation has seriously damaged Olopawa Mountain and historical drainage in the Kaeleku area. **Please produce a remediation plan to address Olopawa Mountain damage and drainage issues in Kaelekua as part of the Draft EA.** Not only has the Hana Landfill operation damaged the culturally significant and important visual open space Olopawa Mountain, the Hana Landfill operation is creating a new mountain at the current site. **Please explain the current height of the new mountain and the current planned height of the new mountain.** This is becoming more and more visible. Please include photos taken from the Fagan Cross area above the former Hotel Hana-Maui.*

***Please explain in detail the weight and height that will be added to the "active" Hana Landfill by moving 89,200 cubic yards and an additional 10,300 cubic yards of clean soil to the active site. Where will that volume of "clean soil" come from?***

***I request certified reports, not estimates or guesstimates, of the daily weight and volume added to the entire landfill site since 1969. Please include the controlling Federal, State and County regulations and laws that allowed an unlined dump in the first place and documentation the landfill has complied with any weight and volume restrictions since 1969.***


**Response:** As noted previously, the proposed action is limited in scope to the closure and clean-up of the inactive Makai Hāna Landfill site. As such, the assessment provided in the EA is confined to presenting an analysis of the potential impacts associated with the proposed clean-up and closure action. The proposed clean-up and closure of the Makai Hāna Landfill site, as a stand-alone action, is not anticipated to present significant impacts on scenic and open space areas in the vicinity of the Hāna landfill property, including Olopawa Mountain, the Kaeleku drainage area and Hāna Town.

According to Figure 3 (Topographic Map) in the Final Closure Plan Landfill Makai Side (Appendix B of the Draft EA) the active Hāna Landfill in 2014 was at elevations 70 feet to 100 feet above mean sea level. The proposed removal of approximately 89,200 cubic yards from the inactive Hāna Landfill is expected to be conducted in three (3) phases over three (3) years. It is expected that there will be a gradual rise in the Active Hāna Landfill elevation. The additional waste is accommodated by the final grades identified in the Hāna Makai Landfill Clean-Up and Closure Plan in Appendix "B" of the Draft EA.

The clean-up and closure of the Hāna Makai Landfill is being undertaken by DEM in accordance with Federal Regulation 40 CFR. Annual reports regarding tonnage and volumes are available for review at the Solid Waste office. Arrangements may be made with DEM personnel to review the documents.

Again, thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your comment letter and this response letter will be included in the Final EA for this project. If additional clarification is required please feel free to contact our planning consultant, Colleen Suyama of Munekiyo Hiraga at 244-2015.

Sincerely,

  
Stewart Stant,  
Director of Environmental Management

cc: Elaine Baker, Department of Environmental Management  
Ali Mehrazarin, A-Mehr, Inc.  
Colleen Suyama, Munekiyo Hiraga

## **XI. REFERENCES**

## **XI. REFERENCES**

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# **APPENDIX A.**

## **1984 Executive Order**

EXECUTIVE ORDER NO. 3-04

## Setting Aside Land for Public Purposes

By this Executive Order, I, the undersigned, Governor of the State of Hawaii, by virtue of the authority in me vested by Section 171-11, Hawaii Revised Statutes, and every other authority me hereunto enabling, do hereby order that the public land hereinafter described be, and the same is, hereby set aside for the following public purposes:

FOR HANA GARBAGE DUMP SITE, to be under the control and management of the County of Maui, a body corporate and politio of the State of Hawaii, being all of the lands situate at Kawaipapa, Hana, Maui, Hawaii, containing an area of 29.0 acres, more or less, TOGETHER WITH an easement for "roadway purposes", containing an area of 1.735 acres, more or less, all more particularly described in Exhibit "A" and delineated on Exhibit "B", both of which are attached hereto and made parts hereof, said exhibits being, respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 20,247 and dated August 21, 1985.

SUBJECT to the disapproval by the Legislature by two-thirds vote of either the Senate or the House of Representatives or by majority vote of both, in any regular or special session next following the date of this Executive Order.

In Witness Whereof, I have hereunto set my hand and caused the Great Seal of the State of Hawaii to be affixed.  
Done at the Capitol at Honolulu this 16<sup>th</sup> day of November, Nineteen Hundred and 85.

*George R. Thompson*  
Governor of the State of Hawaii

Approved as to form:

*Devin D. Johnson*  
Deputy Attorney General

Dated: August 30, 1985



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES  
HONOLULU

C.S.F. No. 20,247

August 12, 1985

HANA GARBAGE DUMP SITE

Kawaipapa, Hana, Maui, Hawaii

Being portion of the Government Land of Kawaipapa.

Beginning at the west corner of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KAUIKI" being 3091.44 feet North and 2823.13 feet West, thence running by azimuths measured clockwise from True South:-

1. 240° 03' 1512.55 feet along Lot A-1-A of the Government Land of Kawaipapa to a point 250.00 feet west from highwater mark at seashore;
2. Thence along the remainder of the Government Land of Kawaipapa, 250.00 west and parallel to highwater mark at seashore, the direct azimuth and distance being:  
343° 14' 970.13 feet;
3. 33° 30' 287.00 feet along Grant 8237 to Haiku Fruit and Packing Company;
4. 47° 10' 170.00 feet along Grant 8237 to Haiku Fruit and Packing Company;
5. 77° 40' 545.00 feet along Grant 8237 to Haiku Fruit and Packing Company;
6. 129° 46' 30" 1008.28 feet along Lot A-1-A of the Government Land of Kawaipapa to the point of beginning and containing an AREA OF 29.0 ACRES, MORE OR LESS.

Together with a Road Easement as shown on plan attached hereto and made a part hereof and more particularly described as follows:-

C.S.P. No. 20,247

August 12, 1985

Being a portion of Lot A-1-A of the Government Land of Kawaipapa.

Beginning at the northwest corner of this easement and on the easterly side of Hana Highway, the coordinates of said point of beginning referred to Government Survey Triangulation Station "KAUIKI" being 5709.82 feet North and 5471.35 feet West, thence running by azimuths measured clockwise from True South:-

1. 251° 36' 135.67 feet along Grant 12,987 to Yoshimi Uchiyama and Agnes Kaiwi Uchiyama;
2. 269° 54' 260.30 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
3. 248° 21' 254.01 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
4. 272° 32' 209.21 feet along the remainder of Lot A-1-A and along Lot A-1-B of the Government Land of Kawaipapa;
5. 237° 52' 256.52 feet along Lot A-1-B of the Government Land of Kawaipapa;
6. 252° 45' 294.75 feet along Lot A-1-B of the Government Land of Kawaipapa;
7. 278° 37' 167.37 feet along Lot A-1-B of the Government Land of Kawaipapa;
8. 315° 05' 330.16 feet along Lots A-1-B and A-2 of the Government Land of Kawaipapa;
9. 336° 14' 147.71 feet along Lot A-2 of the Government Land of Kawaipapa;
10. Thence along Lot A-2 of the Government Land of Kawaipapa on a curve to the left with a radius of 125.00 feet, the chord azimuth and distance being:  
296° 54' 158.46 feet;
11. 257° 34' 190.16 feet along Lot A-2 of the Government Land of Kawaipapa;
12. 289° 09' 255.82 feet along Lot A-2 of the Government Land of Kawaipapa;

C.A.P. No. 20,247

August 12, 1985

13. 297° 10' 440.86 feet along Lot A-2 and the remainder of Lot A-1-A of the Government Land of Kawaipapa;
14. 271° 50' 329.39 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
15. 60° 03' 37.97 feet along Hana Garbage Dump Site;
16. 91° 50' 301.61 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
17. 117° 10' 443.96 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
18. 109° 09' 248.76 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
19. 77° 34' 184.50 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
20. Thence along the remainder of Lot A-1-A of the Government Land of Kawaipapa on a curve to the right with a radius of 145.00 feet, the chord azimuth and distance being:  
116° 54' 183.81 feet;
21. 156° 14' 143.97 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
22. 135° 05' 101.46 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
23. 25° 39' 4.24 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
24. 135° 05' 218.47 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
25. 98° 37' 153.95 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
26. 72° 45' 286.10 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;

C.S.F. No. 20,247

August 12, 1985

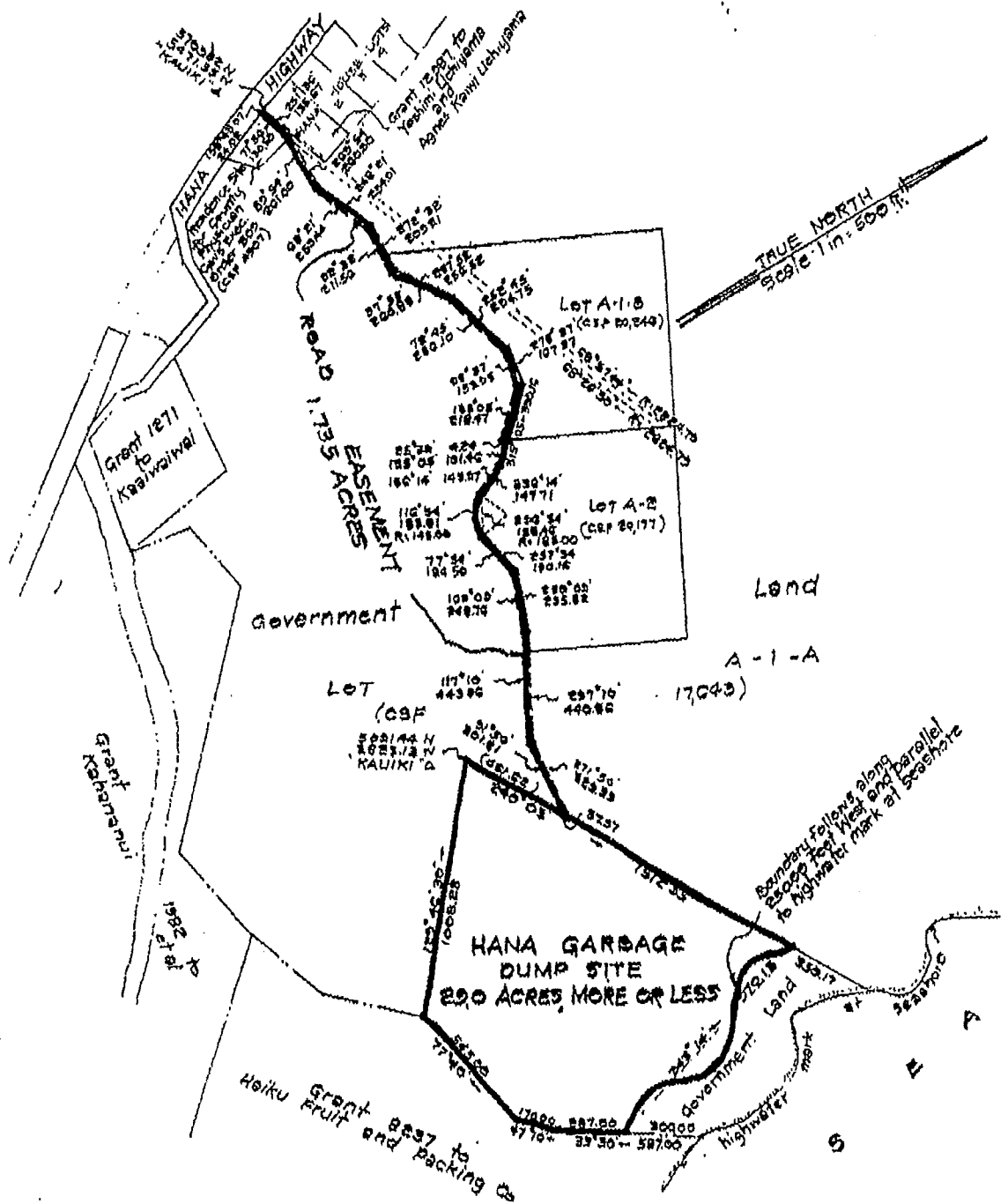
27. 57° 52' 260.88 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
28. 92° 32' 211.56 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
29. 68° 21' 252.44 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa;
30. 89° 54' 261.00 feet along the remainder of Lot A-1-A of the Government Land of Kawaipapa and along Residence Site for County Physician, Governor's Executive Order 309;
31. 71° 36' 130.59 feet along Residence Site for County Physician, Governor's Executive Order 309;
32. Thence along the easterly side of Hana Highway on a curve to the right with a radius of 2824.79 feet, the chord azimuth and distance being:  
158° 43' 07" 24.02 feet  
to the point of beginning and  
containing an AREA OF 1.735  
ACRES.

SURVEY DIVISION  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

By: Stanley T. Hasegawa  
Stanley T. Hasegawa  
Land Surveyor

pt

Compiled from map furn. by  
County of Maui, CSP 17,643,  
20,177 and other Govt.  
Survey Records.



# **HANA GARBAGE DUMP SITE**

Kaunapali, Maui, Hawaii

Scale: 1 inch = 500 feet

Ma-280 (85)  
 BK Hasegawa 10 May 28

MAP 1-3-00

L.F. No. 20,247

SURVEY DIVISION  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 STATE OF HAWAII

EXHIBIT "B"

9TH. Aug. 12, 191



## **APPENDIX A-1.**

**Board of Land and Natural  
Resources Letter Dated  
May 13, 2011**

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Land Division  
Honolulu, Hawaii 96813

May 13, 2011

Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

PSF No.:03MD-380

MAUI

Withdrawal from General Lease No. S-4524 of approximately 45.14 acres; Set Aside to County of Maui, Department of Environmental Management for Landfill Expansion Purposes; and Authorize Issuance of a Right-of-Entry to the County of Maui, Department of Environmental Management; Kawaipapa, Hana, Maui, Tax Map Key: (2) 1-3-006:007 portion.

APPLICANT:

County of Maui, Department of Environmental Management

General Lease No. S-4524, Ethel Abreu and Lloyd Abreu

LEGAL REFERENCE:

Section 171-11, Hawaii Revised Statutes (HRS), as amended.

LOCATION:

Portion of Government lands situated at Kawaipapa, Hana, Maui, identified by Tax Map Key: (2) 1-3-006:007 por., as shown on the attached map labeled Exhibit A.

AREA:

45.14 acres, more or less.

ZONING:

State Land Use District:	Agriculture
County of Maui, CZO:	Agriculture

APPROVED BY THE BOARD OF  
LAND AND NATURAL RESOURCES  
AT ITS MEETING HELD ON

May 17, 2011      tax

TRUST LAND STATUS:

Section 5(b) lands of the Hawaii Admission Act

DHHL 30% entitlement lands pursuant to the Hawaii State Constitution: YES \_\_\_\_ NO  
  X  

CURRENT USE STATUS:

The subject lands are encumbered by GL S-4524 for pasture purposes.

PURPOSE:

Landfill expansion purposes

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

The Final Environmental Assessment for the subject project was published in the OEQC's Environmental Notice on November 23, 2007 with a finding of no significant impact (FONSI).

APPLICANT REQUIREMENTS:

Applicant shall be required to:

- 1) Process and obtain a 3-lot subdivision at Applicant's own cost;
- 2) Provide survey maps and descriptions according to State DAGS standards and at Applicant's own cost for each of the three (3) lots created.

REMARKS:

Hana landfill is situate at TMK (2) 1-3-006:012, in Hana, Maui and was originally disposed of in 1985 by the State to the County of Maui via Executive Order No. 3304 consisting of 29 acres (more or less).

The County of Maui Department of Environmental Management (DEM) has requested to expand the Hana landfill by about 45 acres (more or less) to accommodate increased demand for operational space that includes an existing encroachment area and additional lands needed for environmental monitoring and buffer zone purposes.

An Environmental Assessment was completed for the subject project and was published in the OEQC's Environmental Notice on November 23, 2007 with a finding of no significant impact (FONSI). According to the County of Maui, a State Special Land Use, County

Special Use and Special Management Area permits have already been acquired for the proposed uses.

In order to enable the expansion and set-aside of government lands, parcel 007 will need to be subdivided. Three (3) parcels are to be created by the County. 1) for the Hana landfill expansion area, 2) for the existing tenant under GL S-4524 and 3) an unused portion of the existing pasture lease on the Hana town side of the existing County road that bisects parcel 007 is to be made available.

General Lease No. S-4524, Ethel Abreu and Lloyd Abreu have no objections to the withdrawal of 45.14 acres. The lease allows for a withdrawal without compensation.

RECOMMENDATION:


That the Board, subject to Applicant fulfilling the Applicant Requirements above:

1. Authorize the withdrawal from General Lease No. S-4524 of approximately 45.14 acres.
2. Authorize the County of Maui to conduct the subdivision of government lands into three lots.
3. Approve of and recommend to the Governor the issuance of an executive order setting aside the subject lands to the County of Maui under the terms and conditions cited above, which are by this reference incorporated herein and subject further to the following:
  - A. The standard terms and conditions of the most current executive order form, as may be amended from time to time;
  - B. Disapproval by the Legislature by two-thirds vote of either the House of Representatives or the Senate or by a majority vote by both in any regular or special session next following the date of the setting aside;
  - C. Review and approval by the Department of the Attorney General; and
  - D. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
4. Authorize the issuance of an immediate right-of-entry permit to the County of Maui, Department of Environmental Management covering the subject area under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:

- A. The standard terms and conditions of the most current right-of-entry permit form, as may be amended from time to time;
- B. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

Respectfully Submitted,



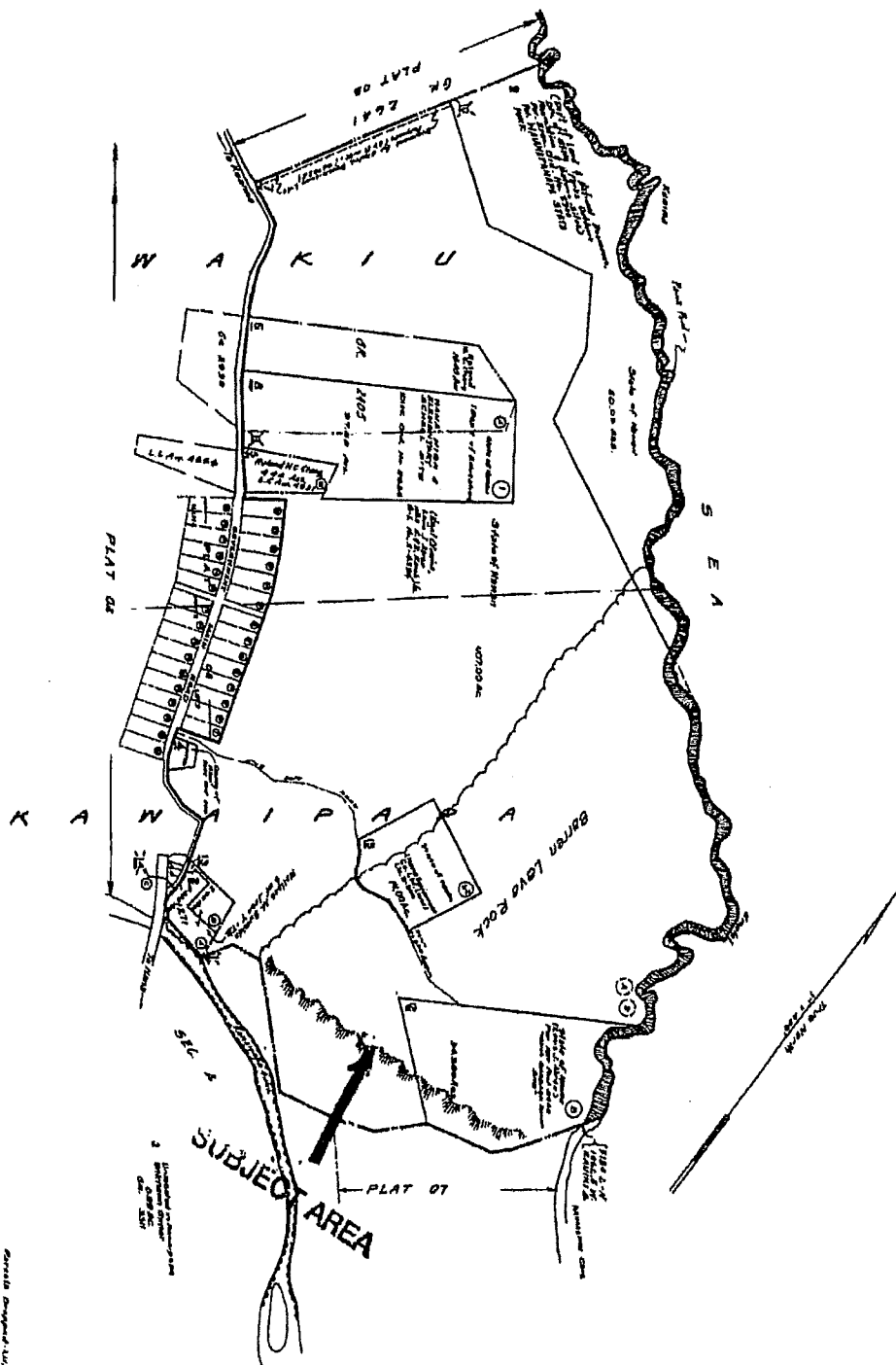
 Daniel Ornellas  
District Land Agent

APPROVED FOR SUBMITTAL:

  
William J. Aila, Jr., Chairperson

Dwg. No: 5202  
 Source: L.S.P. 6338, Survey Dept. & Top. Map Bureau  
 By: L.H. J.H.H. July 1937

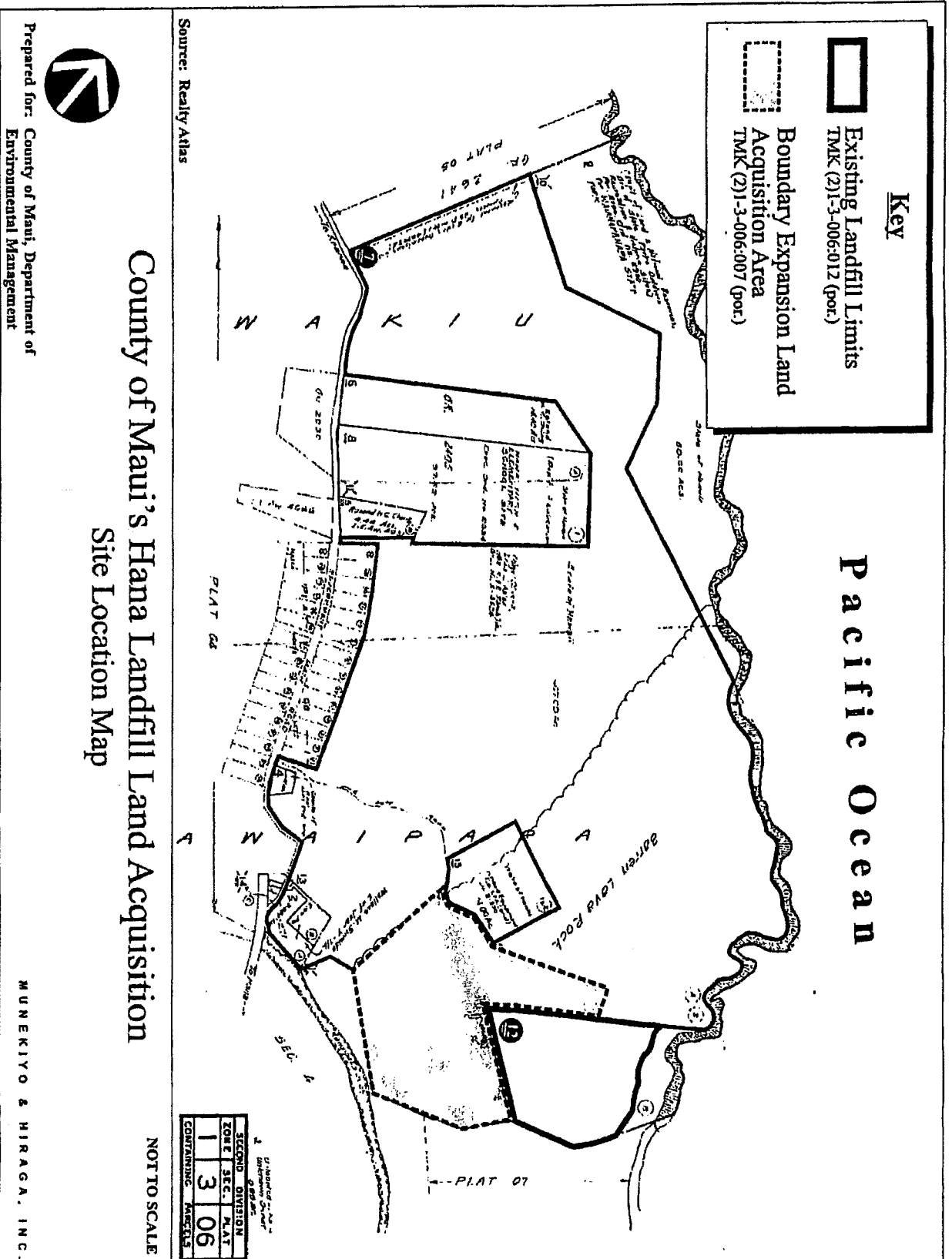
Re: WAKIU & KAWIPIA, MAUI, HAWAII.



PREPARED BY  
 SURVEY TO L.H.H.

SECOND DIVISION	1
ZONE SEC. NAT	3
CONTAINING AREA	06
1. SCALE 1:1000	

**EXHIBIT A**



C

impound the same and to occupy and use so much of the demised premises as may be required in the exercise of this right reserved; provided, however, that as a condition precedent to the exercise by the Lessor of the rights reserved in this paragraph just compensation shall be paid to the Lessee for any of Lessee's improvements taken.

2. Withdrawal. The right to withdraw the demised land, or any portion thereof, at any time during the term of this lease upon the giving of reasonable notice by the Board and without compensation, except as provided herein, for public uses or purposes, including residential, commercial, industrial or resort developments, for constructing new roads or extensions, or changes in line or grade of existing roads, for rights-of-way and easements of all kinds, and shall be subject to the right of the Board to remove soil, rock or gravel as may be necessary for the construction of roads and rights-of-way within or without the demised premises; provided, that upon such withdrawal, or upon such taking which causes any portion of the land originally demised to become unusable for the specific use or uses for which it was demised, the rent shall be reduced in proportion to the value of the land withdrawn or made unusable, and if any permanent improvement constructed upon the land by the Lessee is destroyed or made unusable in the process of such withdrawal or taking, the proportionate value thereof shall be paid based upon the unexpired term of the lease; provided, further, that no such withdrawal or taking shall be had as to those portions of the land which are then under cultivation with crops until the crops are harvested, unless the Board pays to the Lessee the value of such crops.

EXHIBIT "C"

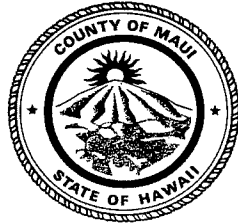


## **APPENDIX B.**

### **Final Closure Plan Hana Landfill Makai Side**

# **FINAL CLOSURE PLAN HANA LANDFILL MAKAI SIDE**

**Prepared for**



**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
2050 MAIN STREET, SUITE 1C  
WAILUKU, MAUI, HAWAII 96793**

**Prepared by**

**A-MEHR, INC.  
23016 Mill Creek Drive  
Laguna Hills, CA 92653**

**November 2014  
Revised February 2015**

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1. INTRODUCTION .....	2
2. INVESTIGATIVE PROGRAM AND RESULTS .....	2
2.1 Methodology .....	2
2.2 Investigation Results .....	3
2.2.1 Waste Limits and Volume .....	3
2.2.2 Waste Limits in Relation to Permitted Site Boundary .....	4
3. CLEAN CLOSURE PROCEDURE.....	4
4. POST-CLOSURE USE AND CARE.....	6

## FIGURES

Figure 1	Existing Site Plan
Figure 2	Field Investigation Test Points and Limits of Waste
Figure 3	Waste Excavation Contours
Figure 4	Proposed Clean Closure Excavation Grades

## APPENDIX A Soil Sampling and Analysis Plan

# **FINAL CLOSURE PLAN HANA LANDFILL MAKAI SIDE**

## **1. INTRODUCTION**

Hana Landfill is comprised of two sections. The currently active Hana Landfill area lies entirely on the west side (mauka side) of Waikoloa Road. The original permitted dump area, Hana Landfill Makai Side, which has not been used for a number of years, is located on the east (makai) side of Waikoloa Road, in an area designated as part of a Conservation District regulated by the State Department of Land Use and Natural Resources (DLNR). Figure 1 is a site plan showing the existing conditions of the two landfill areas.

Waste disposed in the Hana Landfill Makai Side included municipal solid waste, green waste, construction and demolition waste and scrap metal including old automobiles. After disposal activities were discontinued most waste was covered with soil, although some areas of green waste were left without cover and allowed to decompose. Over time, most of the area where waste was disposed became covered with natural vegetation ranging from grass to heavy brush.

After consideration of several options, the County of Maui has determined that the most appropriate means of closing the Hana Landfill Makai Side area is by clean closure, including removal of all waste materials, grading of the area and revegetation with appropriate erosion controls.

In order to define the limits, characteristics and quantity of waste in the makai area, the County conducted a detailed site investigation in March 2014 according to plans developed by A-Mehr, Inc. (A-Mehr). A contractor working at the direction of an A-Mehr field engineer excavated a series of test pits and trenches, which were subsequently surveyed by a licensed land surveyor to establish the waste limits. A-Mehr then combined the survey data and depth of waste in each test pit to calculate an estimated waste volume.

The remainder of this document contains the following sections:

- Section 2 describes in detail the March 2014 investigative program and results of its analysis.
- Section 3 describes the proposed clean closure process.
- Section 4 addresses post-closure maintenance and use.

## **2. INVESTIGATIVE PROGRAM AND RESULTS**

### **2.1 Methodology**

The field investigation was conducted during the period March 24-March 26, 2014. Prior to this time, a licensed surveyor (Akamai Surveying, Inc.) staked the locations of test pits according to an investigative plan prepared by A-Mehr based on prior information from county records of waste disposal. The County's contractor, under A-Mehr's field engineer's direction, then excavated at the preset locations using two general approaches:

- For test pit locations intended to define limits of waste, an initial excavation determined whether waste was present. If waste was found, the test pit was extended by trenching outward toward the site boundary until no waste was present. This point was staked for later surveying to define the waste limits in the area.
- If no waste was found in the initial test pit, the pit was extended by trenching or by excavating additional pits in locations toward the landfill center, until the interface between waste and native soil or clean fill soil was established. This point was staked for later surveying to define the waste limits in the area.
- For test pits intended to determine the depth and characteristics of waste, pits were excavated as deep as needed to reach the interface between the bottom of waste and native soil. Excavation depths ranged from 5 feet to 28 feet in these pits. Data collected for each pit included the depth of cover soil, and depth to bottom of waste.

Additional test pits in addition to the pre-surveyed test pit locations were excavated as needed to refine the limits of waste or depth and characteristics of waste in some areas. All test pits were backfilled after being staked by the A-Mehr engineer. Akamai Surveying then established the location and elevation of the surface at each test pit location.

Figure 2 shows the locations of all the test pits together with the limits of waste established by the fieldwork. Table 1 is the field engineer's record of observations.

## 2.2 Investigation Results

### 2.2.1 Waste Limits and Volume

Following receipt of final post-investigation survey information from Akamai Surveying, A-Mehr created Figure 2, showing all test points and the approximate limits of waste based on the field log data. Digital terrain model (DTM) surfaces were prepared of the top and bottom of waste using information in Table 1 and the contouring routines in the earthwork software (TerraModel, by Trimble). Figure 3 shows the conceptual contours of the bottom of waste determined by this method.

The area contained within the limits of waste shown in Figure 2 is approximately 6.4 acres. For closing the landfill area by removing all waste, the area within the waste limits would be excavated to the grades shown in Figure 4. The approximate depth of excavation required to accomplish this is shown by the contours of Figure 3.

Computations comparing the DTM surfaces for existing topography, top of waste and bottom of waste, result in the following approximate volumes of waste and soil that would be excavated during clean closure of the site:

Total excavation (existing topography to bottom of waste):	99,500 cy
Clean soil excavation (existing topography to top of waste):	10,300 cy
Waste excavation (top of waste to bottom of waste)	89,200 cy

It should be emphasized that these quantities are approximate. Significant uncertainty is created particularly in the area identified in Figure 3, where the field investigation exposed a

previously unidentified large number of abandoned automobiles and other vehicles that were apparently dumped into a gully many years ago. There is no accurate information on the previous elevations of this area, and it was not possible to excavate through the vehicles to find the "bottom of waste" in the area.

### 2.2.2 Waste Limits in Relation to Permitted Site Boundary

As discussed in Section 1, historical surveys and anecdotal information has suggested that some waste in the Hana Landfill Makai Side area may have encroached into areas of the State Land Use Conservation District that were outside the boundaries permitted by the original landfill permits. The field investigation and its results described in Section 2.2.1 indicate that such encroachment, if any, involves a very limited area.

The areas of potential encroachment discussed in the past were beyond the east and north boundaries of the Hana Landfill Makai Side area. Each of these is discussed below.

- **East Boundary:** The easterly boundary of the Hana Landfill Makai Side, as originally granted in Executive Order (E.O.) 3304 dated November 16, 1985, was defined as a meandering line "250.00 feet west and parallel to high water mark at seashore", referring to the shoreline of Ka'inālimu Bay. Figure 2 shows the 250-foot setback and the waste limits as determined in the field investigation. The drawing indicates that a small area in the southwest part of the site encroaches beyond the site boundary by approximately 30 feet.
- **North Boundary:** Figure 2 shows the north site boundary in relation to the test pits used to determine the extent of waste in the area. Test pits near the boundary include P-4, NP-4, and P-5. Point P-4, the originally staked position, was located approximately 60 feet outside the site boundary based on previous County estimates of encroachment into the Conservation District. Excavation at that location found no waste. Additional test pits and trenching established the waste limits at Point NP-4, located within a few feet of the site boundary. Similarly, no waste was found at P-5, and trenching located waste approximately five feet inward from it.

Based on the data and field observations, it is reasonable to conclude that any encroachment of waste into the Conservation District that is outside the boundaries granted by E.O. 3304 for waste disposal is, at most, a very small area. The proposed clean closure project will include location of waste limits around the entire site perimeter. After completion of excavation, the limits adjacent to the site boundary will be surveyed to identify any areas of encroachment beyond the originally permitted landfill boundaries. In consultation with the State Department of Land and Natural Resources (DLNR), such areas, if any, will be restored to conditions acceptable to the DLNR.

## 3. CLEAN CLOSURE PROCEDURE

The County proposes to close the Hana Landfill Makai Side area by removing all waste over a period of approximately 3 years, using County resources and personnel or contractors. Closure of the approximately 6.4-acre waste footprint would occur in staged increments of approximately two acres per year, beginning along the north boundary and working toward the south.

Clean closure could be done using the following procedures:

- Survey and stake the limits of waste as shown in Figure 2.
- Clear and grub vegetation from an area planned for waste removal during the next 3 to 6 months. (In order to minimize erosion the disturbed area should be limited.)
- Strip existing cover soil to expose refuse, and stockpile the soil for any fill required subsequently for grading purposes, with any excess made available for use as daily cover in the active Hana Landfill.
- Excavate refuse to expose clean native soil, and haul to a process area or the active landfill.
- If significant refuse is found at the surveyed limits of waste, expand the excavated area until all refuse has been removed.
- Process the refuse as follows:
  - Remove large metal items to a scrap metal stockpile for transport to an appropriate licensed scrap dealer.
  - Remove abandoned automobiles buried in gullies at the southeast corner of the site. As they are removed, additional excavation will be conducted to ensure that all vehicles are removed and that the area is excavated to the approximate original grades.
  - Remove any large wood items including stumps or logs to a separate stockpile. Depending on the character and quantity of these materials they may either be processed or disposed in the active Hana Landfill.
  - Depending on conditions, remove other items or materials that can be readily separated for recycling. This may include concentrated volumes of clean green waste.
  - Transfer the remaining refuse to the active Hana landfill for disposal.
- After all refuse has been excavated from an area, soil samples will be collected from the exposed subgrade, and tested to determine compliance with DOH Environmental Action Levels (EALs). In addition, samples will be collected from native soils in areas hydrogeologically upgradient from the landfill, to determine background levels of any chemical constituents detected in subgrade soil within the landfill footprint. Any areas where subgrade levels with soil constituents exceeding EALs and background concentrations will be further excavated to expose bedrock or soils that test within background concentrations. Appendix A provides additional detail regarding soil sampling and testing program.
- No area of exposed subgrade will be backfilled, covered with soil or revegetated until testing has demonstrated soil contaminant levels are below EAL values.

- Survey the disturbed area and prepare an as-built drawing of the excavated conditions, including any encroachment beyond permitted site boundaries.
- Grade the site to achieve a relatively uniform slope, using stockpiled cover soil as needed to fill any low spots that would collect runoff.
- Install erosion controls and plant the site to an appropriate grass mixture.

Any encroachment of the final excavation grades beyond the originally permitted site boundaries will be documented and reported to the State Department of Land Use and Natural Resources (DLNR). Remedial measures in addition to the procedures described above may be required by DLNR in areas of encroachment.

#### **4. POST-CLOSURE USE AND CARE**

Because the Hana Landfill Makai Side area is within a State Conservation District, it will remain as open space after all waste is removed. Based on past experience at the site, it is expected that over time a variety of plant species will naturally replace the temporary grass cover that the County will install for erosion control. Until that occurs the County will monitor the site and repair any areas where the grass cover is lost in order to prevent erosion.



**TABLE 1 - FIELD INVESTIGATION LOG**

POINT NO.	DEPTH TO WASTE COVER	DEPTH TO BOTTOM OF WASTE	WASTE THICKNESS	DEPTH TO BOTTOM	WASTE APPEARANCE/ COMMENT
P-1	0	0	0	6	NO TRASH
P-2	0	0	0	0	NO TRASH
NPWBD2&D6 aka D-2A	0	0	0	5	NO TRASH
P-3	0	0	0	0	NO TRASH
P-4	0	0	0	5	NO TRASH
NP-4	0	0	0	0	NO TRASH/EDGE OF WASTE
NP-4T	1	7	6	7	TIRE, CAR PARTS, SHACK
P-5	0	0	0	6	NO TRASH
NPSBD5&D6 aka D-5A	0	0	0	5	NO TRASH
P-6	0	0	0	4	NO TRASH
NP-6	0	0	0	5	NO TRASH
P-7	1	7	6	7	TRASH IS RIGHT AT EDGE
P-7T	1	4	3	5	FIRE HYDRANT, 55 GALLON BUCKET
P-8	0	0	0	5	NO TRASH
P-9	1	10	9	NA	CAR ENGINE, AXLE, CAR'S PART
NP-9	0	0	0	5	EDGE OF TRASH
NP-9A	0	0	0	5	EDGE OF TRASH
NP-9B	0	0	0	5	TOE OF TRASH
NP-9C	1	3	2	3	EDGE OF TRASH
NP9-D	0	0	0	5	EDGE OF TRASH
NP-9E	0	0	0	5	EDGE OF TRASH
NP-9F	0	0	0	3	NO WASTE
P-10	3	5	2	5	TIRE WITH RIM, EDGE OF TRASH

<b>P-10A</b>	2	20	18	20	PLASTIC, WOOD, CARPET, CAN, PIPE, PVC PIPE CAR'S BATTERY
<b>P-11</b>	0	0	0	0	NO TRASH
<b>NP-11</b>	0	0	0	0	EDGE OF TRASH
<b>NP-11T</b>	2	5	3	5	WOOD, METAL, WIRE, BLOWER,
<b>P-12</b>	0	0	0	5	NO TRASH
<b>P-13</b>	0	0	0	4	NO TRASH
<b>P-14</b>	0	0	0	4	NO TRASH
<b>D-1</b>	0	0	0	0	NO TRASH
<b>D-2</b>	1	3	2	5	METAL, WOOD, SURFACE TRASH
<b>D-3</b>	1	8	7	8	WOOD, METAL, SHIP'S ROPE, CAR'S PART, GAS ROPE TANK
<b>NDBD3&amp;D4 aka D-3A</b>	1	6	5	10	PLASTIC, WOOD, METAL, CONCRETE
<b>D-4</b>	2	15	13	15	TARP, WOOD, 5 GALLON BUCKET, METAL
<b>D-5</b>	0	0	0	0	NO TRASH
<b>D-6</b>	1	3	2	5	METAL, CARPET, PLASTIC, WOOD
<b>D-7</b>	1	7	6	7	WOOD, CONCRETE, CARPET
<b>NDBD7&amp;D8 aka D-7A</b>	1	9	8	14	WOOD, PIPE, GREEN WASTE, PVC PIPE, BIKE TIRE, MATTERS, CAR'S PART
<b>D-8</b>	2	28	26	28	WOOD, PVC PIPE, ELECTRONIC EQUIPMENT, LUMBER, METAL, CARPET
<b>D-9</b>	0	0	0	8	NO TRASH
<b>D-10</b>	1	7	6	8	CARPET, TIRE
<b>D-10A</b>	0	0	0	0	NO TRASH
<b>D-11</b>	2	6	4	7	REBAR
<b>D-12</b>	1	14	13	20	PVC PIPE, WOOD, CAR'S RIM, GLASS, METAL, CAR'S ROTOR

**APPENDIX A  
HANA LANDFILL MAKAI SIDE FINAL CLOSURE PLAN  
SOIL SAMPLING AND ANALYSIS PLAN  
FEBRUARY 2015**

## **5. INTRODUCTION**

The Hana Landfill Makai side is to be closed by excavation of all waste materials. The exposed underlying natural soil material will be sampled and tested to determine that it does not exceed regulatory limits for contaminants. This Plan describes procedures for sampling, testing and evaluation of test results. It also addresses procedures to be followed in event that unacceptable levels of chemical constituents are present.

The excavation will be conducted in a series of phases over a three-year period, based on weather conditions and availability of labor and equipment. The procedures described in this Plan will be implemented in each phase prior to any final grading or revegetation.

## **6. SOIL SAMPLING PROCEDURES**

Prior to sampling any phase of subgrade within the waste footprint, a minimum of two (2) samples of native soil will be collected from areas outside the landfill waste footprint. These samples will be collected in areas determined to be hydrogeologically upgradient from the landfill. They will be used to establish background levels for potential soil contaminants in the site vicinity.

At the conclusion of each phase of excavation, soil samples will be collected from a depth of approximately six (6) inches below the subgrade surface. Samples will be collected in a container specified by the certified testing laboratory that will analyze them.

A minimum of one sample will be collected from each phase with an area of one acre or less. Samples in phases of one acre or more will be collected on the basis of two (2) samples per acre. Samples will not be taken in areas where waste excavation has exposed bedrock.

The individual responsible for collecting soil samples shall use a Chain of Custody form supplied by the laboratory for transmittal of the samples.

## **7. LABORATORY ANALYSIS**

Each soil sample will be analyzed for the following:

- Total metals using the USEPA method 6010B;
- Mercury by USEPA Method 8015B;
- Total petroleum hydrocarbons (TPH) quantified as diesel, quantified as gasoline, and TPH quantified as oil/residuals by USEPA Method 9015B Modified; and
- Select general soil parameters not subject to EALs.

Analysis results will be compared with applicable Environmental Action Levels (EALs) as established by the Hawaii Department of Health and listed in Attachment 1.

## **8. EVALUATION OF TEST RESULTS**

Each sample result will be compared with EAL values and values from background samples. Areas where one or more parameters exceed both EALs and background concentrations will be identified for additional excavation or investigation.

## **9. REMEDIAL ACTIONS**

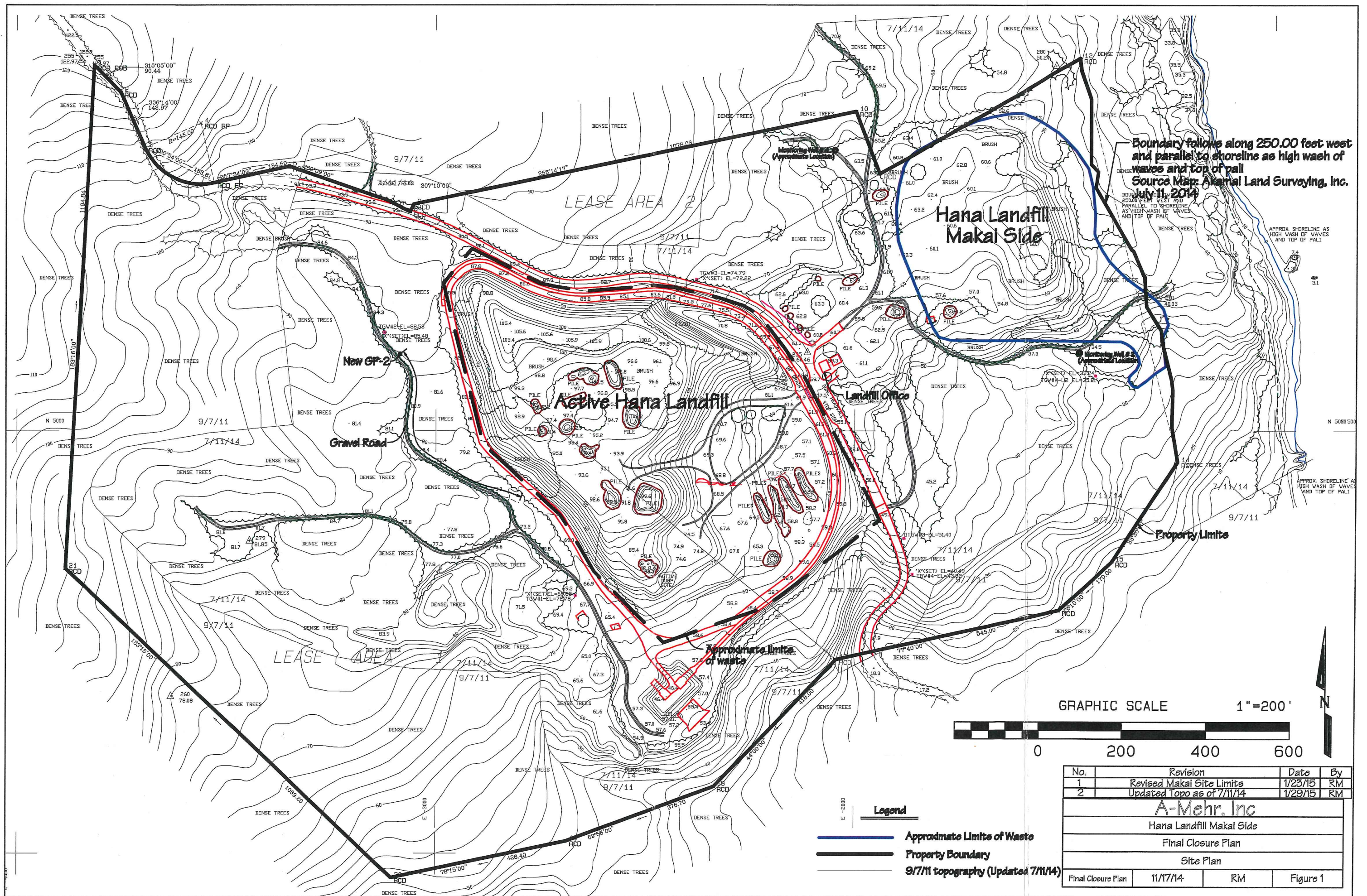
Any area identified for additional excavation or investigation based on soil test results will be additionally excavated, with the excavated material treated as contaminated soil and disposed in accordance with applicable regulations. Following the additional excavation, soil samples will be collected and analyzed in accordance with this Plan.

No excavated area of the landfill will be graded, covered or revegetated until the test program has demonstrated that any contaminated soil has been removed.

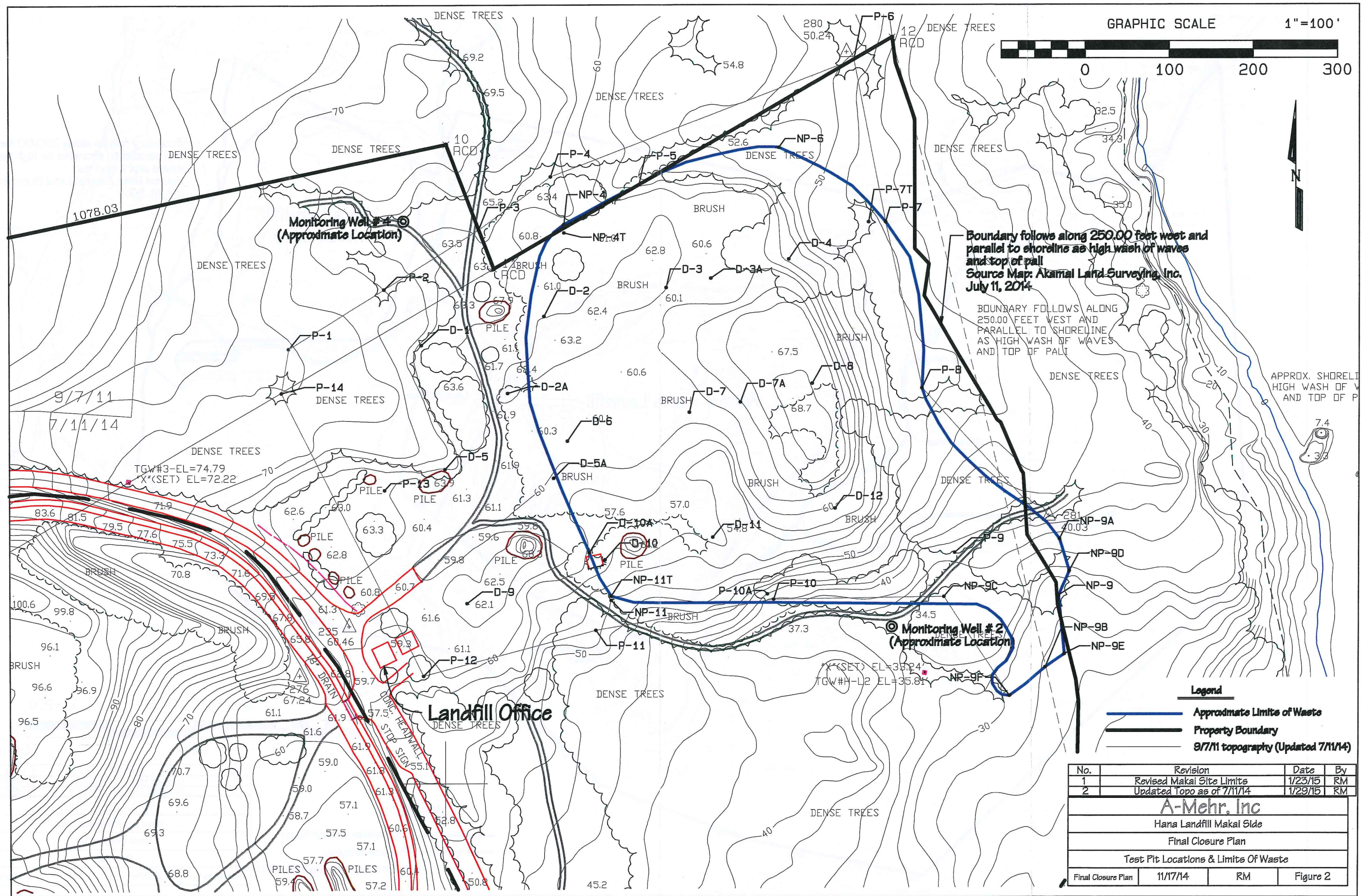
**ATTACHMENT 1**  
**SOIL ENVIRONMENTAL ACTION LEVELS**

<b>Analyte</b>	<b>Soil EAL (mg/kg)</b>
Arsenic	2.0E+01
Barium	7.5E+03
Beryllium	4.0E+00
Cadmium	1.1E+01
Chromium	5.0E+02
Cobalt	4.0E+01
Copper	2.3E+02
Lead	2.0E+02
Mercury	4.7E+00
Nickel	1.5E+02
Phosphorus	N/A
Vanadium	1.1E+02
Zinc	2.2E+01
Aluminum	N/A
Calcium	N/A
Iron	N/A
Magnesium	N/A
Manganese	N/A
Potassium	N/A
Sodium	N/A
Strontium	N/A
TPH as Diesel	1.0E+02
TPH as Gasoline	1.0E+02
TPH as Residual Fuel	5.0E+02

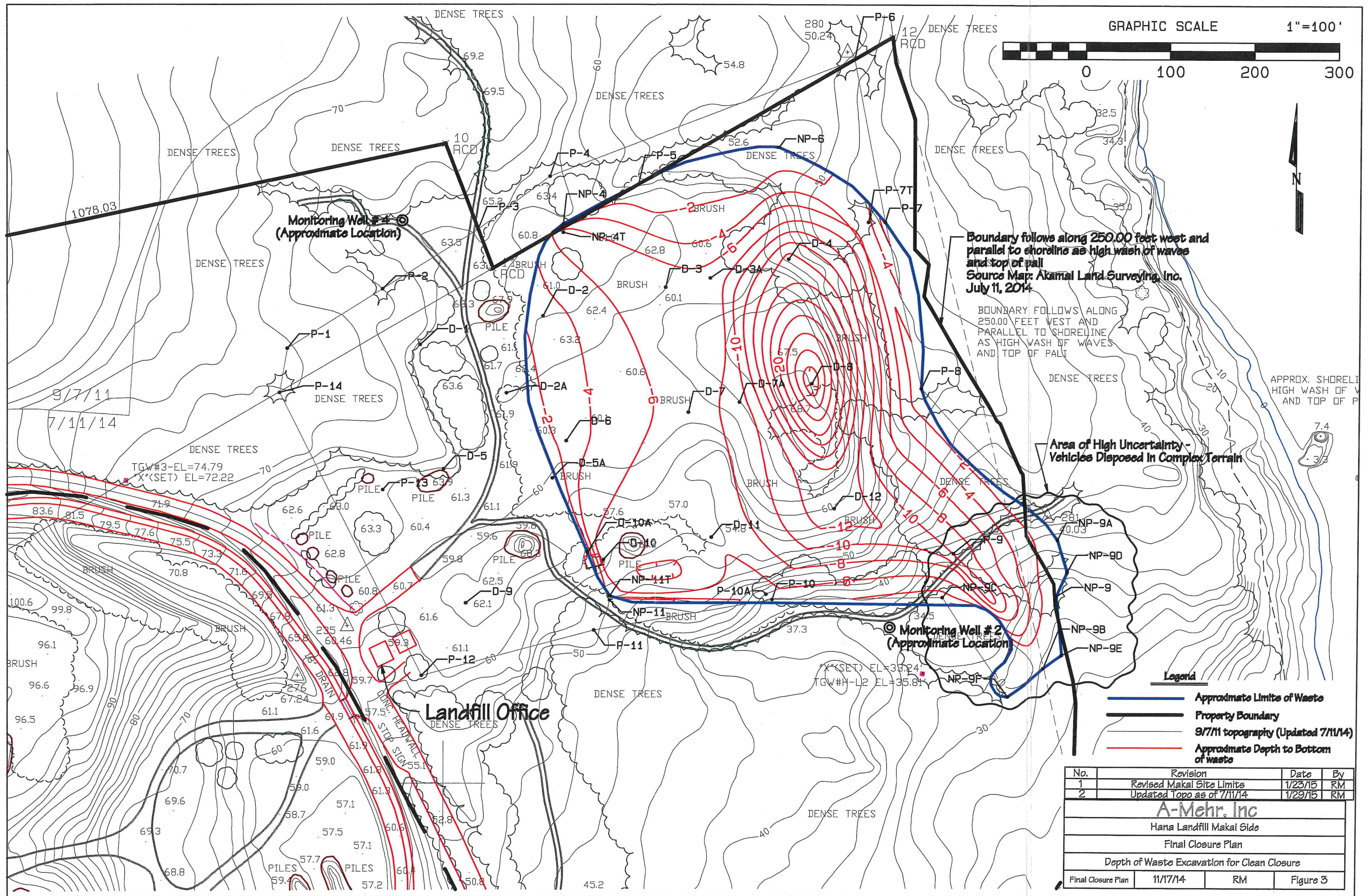




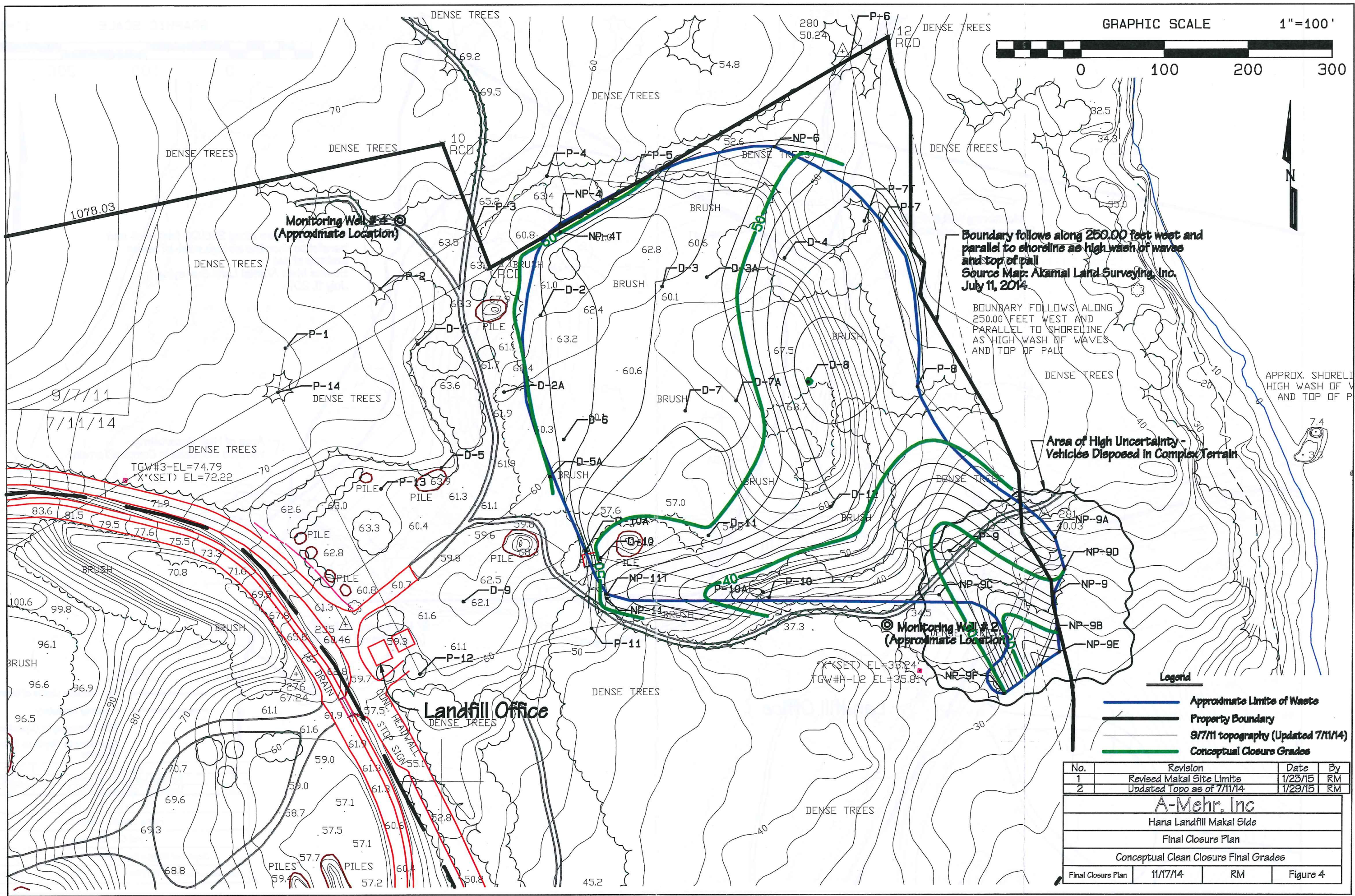












Boundary follows along 250.00 feet west and parallel to shoreline as high wash of waves and top of pili  
Source Map: Akamal Land Surveying, Inc. July 11, 2014

BOUNDARY FOLLOWS ALONG 250.00 FEET WEST AND PARALLEL TO SHORELINE AS HIGH WASH OF WAVES AND TOP OF PILI

Area of High Uncertainty - Vehicles Disposed in Complex Terrain

Legend

- Approximate Limits of Waste
- Property Boundary
- 9/7/11 topography (Updated 7/11/14)
- Conceptual Closure Grades

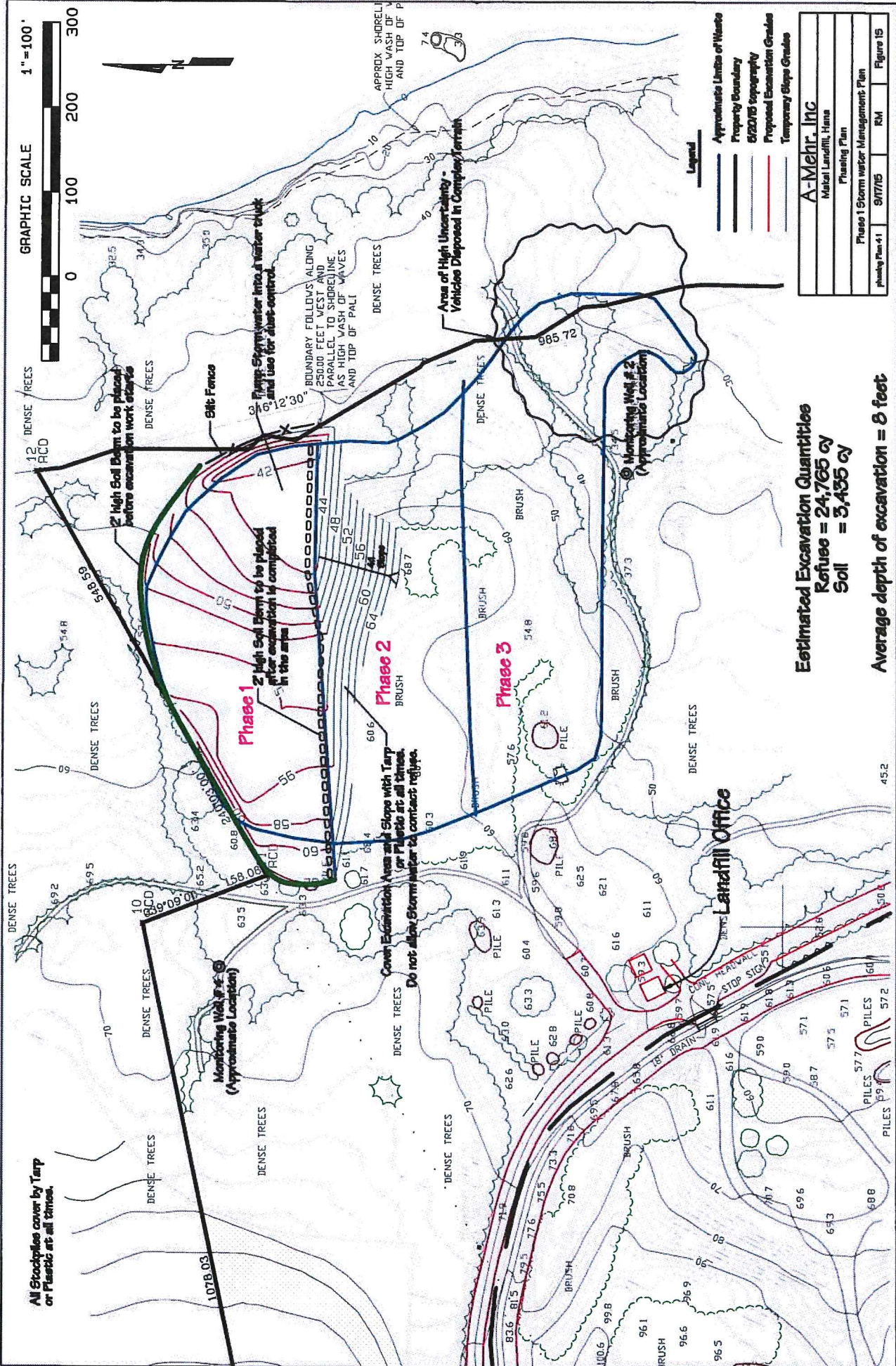
No.	Revision	Date	By
1	Revised Makai Site Limits	1/23/15	RM
2	Updated Topo as of 7/11/14	1/29/15	RM
A-Mehr, Inc			
Hana Landfill Makai Side			
Final Closure Plan			
Conceptual Clean Closure Final Grades			
Final Closure Plan	11/17/14	RM	Figure 4



## **APPENDIX B-1.**

# **Makai Hāna Landfill Closure Phasing Plan**

GRAPHIC SCALE 1"=100'



**Legend**

- Approximate Limits of Waste
- Property Boundary
- 5/20/15 Topography
- Proposed Excavation Grades
- Temporary Slope Grades

A-Mehr, Inc.			
Metals Landfill, Hana			
Flushing Plan			
Phase 1 Storm Water Management Plan			
Flushing Plan #1	9/17/15	RM	Figure 15

**Estimated Excavation Quantities**  
 Refuse = 24,765 cy  
 Soil = 3,435 cy

**Average depth of excavation = 8 feet**

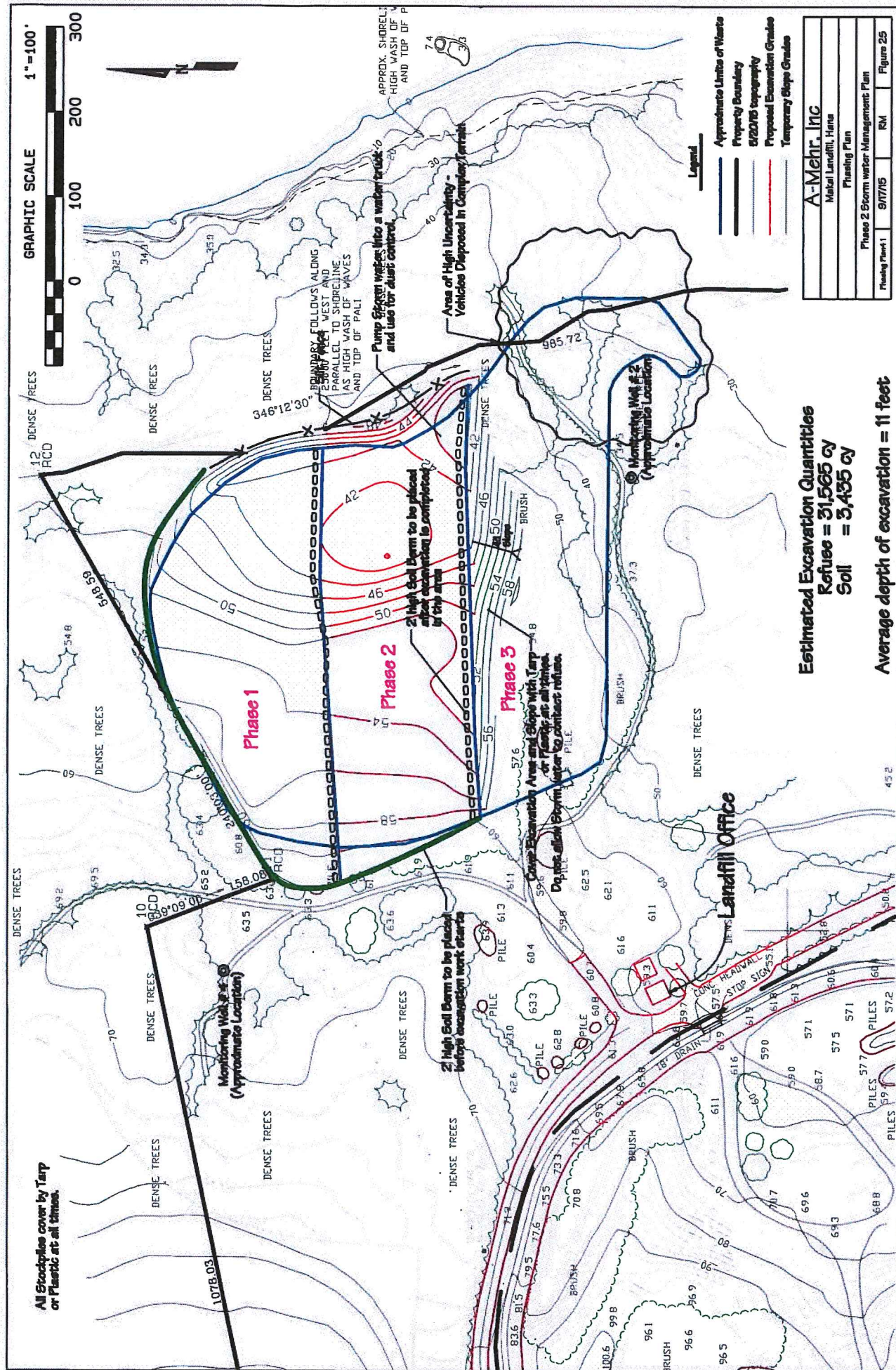
All Stockpiles cover by Tarp or Plastic at all times.

Cover Excavation Area with Tarp or Plastic at all times. Do not allow stormwater to contact refuse.

Landfill Office

45.2









## **APPENDIX C.**

### **Archaeological Assessment Report (2003)**

**AN ARCHAEOLOGICAL ASSESSMENT OF PORTIONS  
OF THE HANA LANDFILL AND ADJACENT STATE  
LAND IN KAWAIPAPA *AHUPUA`A*,  
HANA DISTRICT, ISLAND OF MAUI  
(TMK: 1-3-06: Parcel 12 and Portion of Parcel 7)**

**Prepared on behalf of:**

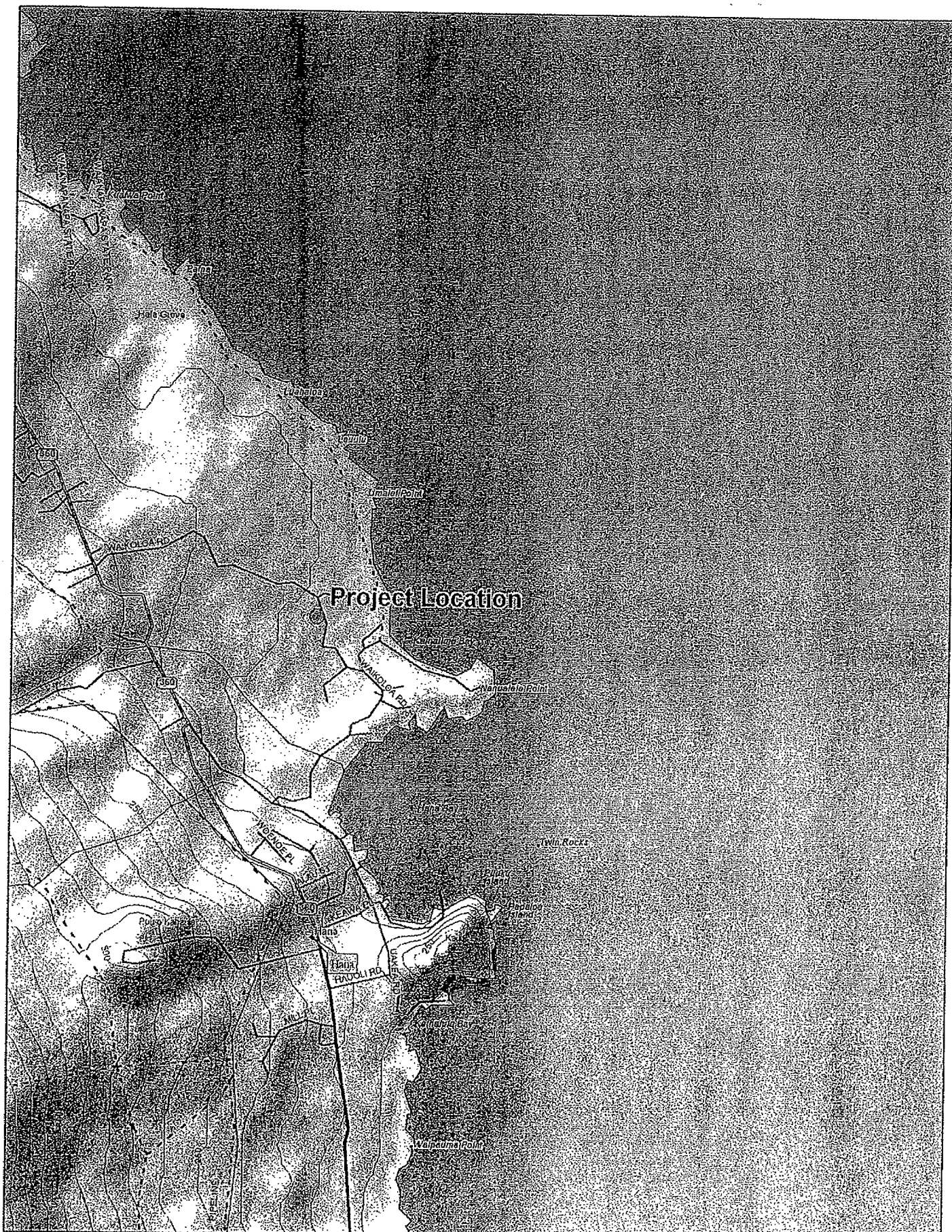
**The Department of Public Works &  
Environmental Management  
County of Maui**

**Prepared by:**

**Xamanek Researches  
Pukalani, Maui  
Erik M. Fredericksen**

**22 September 2003**

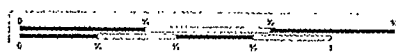



**DELORME**

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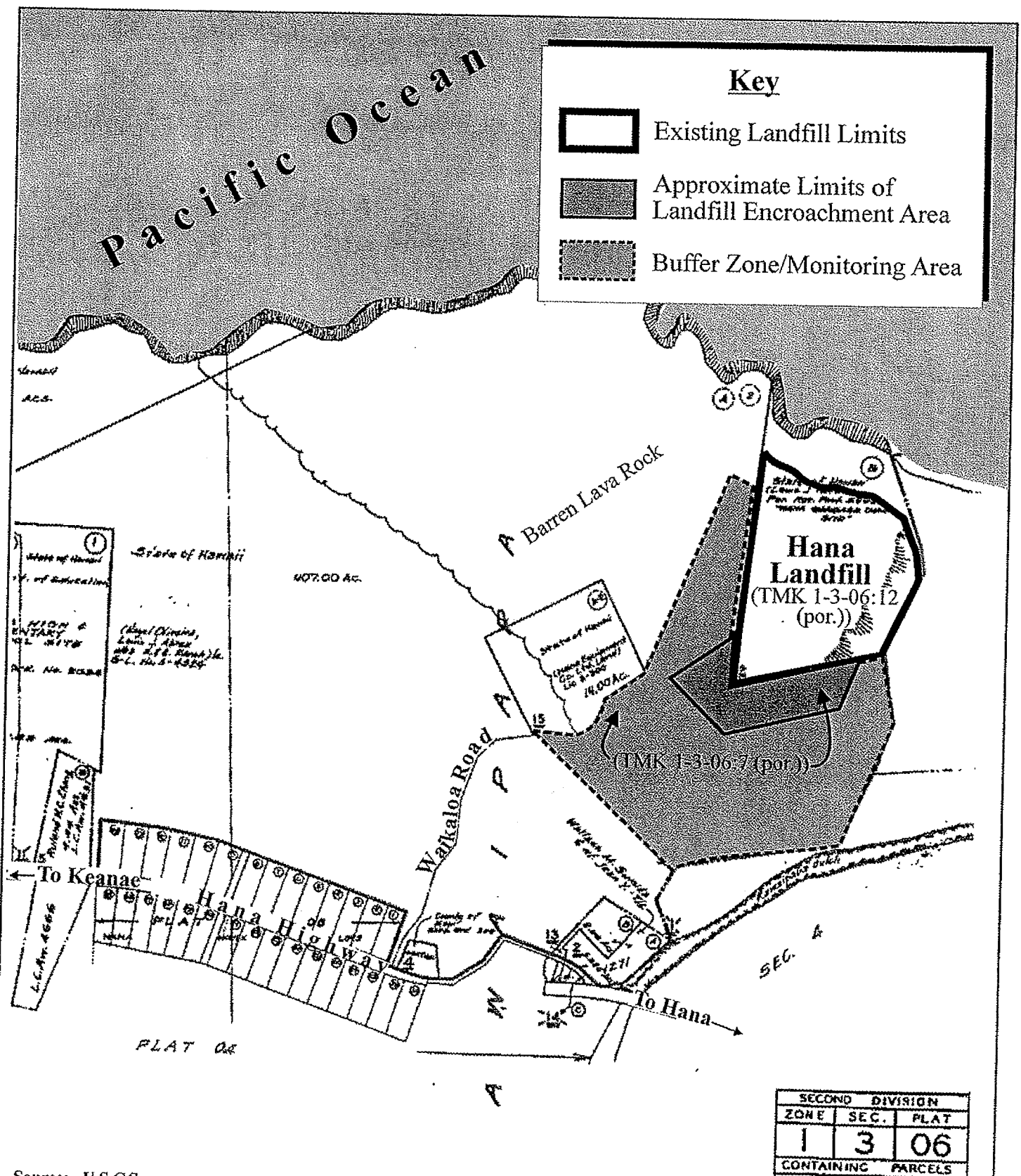
Zoom Level: 13-1 Datum: WGS84

Scale 1 : 24,000

$$I'' = 2,000.04 \text{ ft}$$


TN  
\*  
: MIN  
: A  
: IRINE  
:





Source: U.S.G.S.

Figure 2



# County of Maui's Hana Landfill Land Acquisition Site Location Map

NOT TO SCALE

Prepared for: County of Maui, Department of Public Works  
and Environmental Management

MUNEKIYO & HIRAGA, INC.

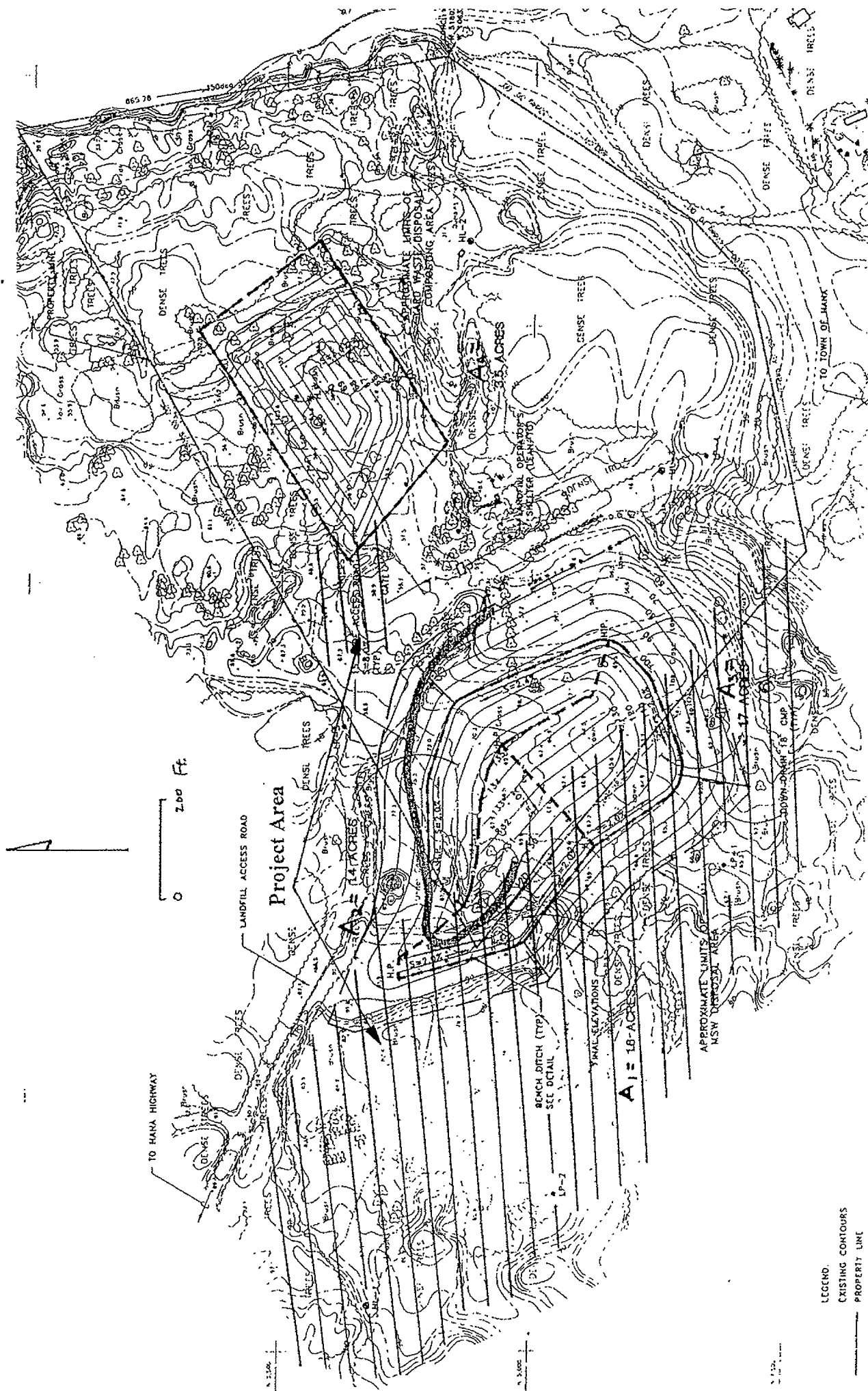


Figure 3—Plan of the surveyed project area, Hana Landfill.

## INTRODUCTION

Mr. Michael Munekiyo of Munekiyo & Hiraga, Inc. contacted Xamanek Researches about a project at the Hana Landfill in January 2003. At this time, it was not known what level of work was necessary for the study parcel (Figures 1, 2 and 3). Proposed study areas included an encroachment on the southeastern side of the existing landfill that extended on to State land (TMK 1-3-006: Portion of Parcel 7) and the proposed white goods and car storage area (Figures 2 and 3). We contacted Dr. Melissa Kirkendall of the State Historic Preservation Division (SHPD), in order to discuss the appropriate level of study for the proposed project area. It was subsequently determined that an archaeological assessment would likely be sufficient, because the general area had been impacted by previous grading activities associated with landfill operations. We were asked to submit a proposal for the necessary work, and subsequently awarded the contract to carry out an archaeological assessment for the above noted areas.

The Hana Landfill facility is located in Kawaipapa *Ahupua`a*, Hana District, Island of Maui (TMK: 1-3-006: Parcel 12 and Portion of Parcel 7) [Figures 1 and 2; Photos 1-4]. As previously mentioned above, the study area is currently utilized as a landfill. The following report presents the results of our archaeological assessment for the study area.

## THE STUDY AREA

Erik Fredericksen visited the project area on 24 July 2003 and met with Mr. James Perry of the Solid Waste Division of the County of Maui. In addition, Mr. Andrew Park, heavy equipment operator at the landfill, was very helpful and familiarized the author with the facility and the location of two gas monitoring wells (LP-1 and LP-2) and one water quality monitoring well (HL-1). These stations lie along the southeastern side of the existing facility, and are used to monitor potential negative impacts to the water table and the surrounding area.

The bulk of the fieldwork for this archaeological assessment was conducted on 26 July 2003. It is estimated that the study area ranges from c. 55 feet to 90 feet AMSL.

The project area is composed of relatively level *a'a* land, the bulk of which has been bulldozed and/or grubbed.

The study area essentially lies on an *a'a* flow that contains generally thin soil cover. Undisturbed portions of land adjacent to the project area and some previously cleared sections to the south of the study area are generally heavily vegetated. However, grubbing and grading actions associated with County landfill operations appear to have impacted the entire assessment project area. The bulk of the plants observed in the vicinity of the survey area consisted of non-native species, including grasses and annual weeds near the ground surface, with ironwood (Casuarina equisetifolia) trees dominating the overstory where trees are present. However, isolated *kukui* (Aleurites moluccana) and *hala* (Pandanus tectorius) trees were noted in some areas as well. In addition, several varieties of landscaping plants—including avocado and Monkeypod (Albizia saman) trees—were noted in the vicinity of the maintenance workers' utility area that is near gas monitoring well LP-1.

It was evident at the time of the surface inspection that the study area had been previously disturbed. During our walkover, scattered modern materials were observed on the existing surface. In addition, abandoned vehicles were noted in the vicinity of the LP-1 monitoring well. Finally, recently imported cinder fill material was noted on much of the property. This imported material is utilized on a daily basis to cover refuse in the landfill facility.

The Hana Landfill property (Parcel 12) borders the ocean on the northwestern side and State land essentially bounds the County property elsewhere. State Parcel 7 lies *mauka* (east) of the landfill parcel. A County road—Waikaloa Road—crosses the landfill property in a northeast/southwest manner. It is estimated that this portion of Maui receives between 100 and 120 inches of annual precipitation.

## BACKGROUND INFORMATION

### Previous Archaeology in the general area

As a whole, there has been relatively little archaeological investigation in the culturally rich Hana region. There has been no previously documented archaeological work carried out on the County of Maui Hana Landfill parcel or the adjacent State parcel. The nearest known sites consist of Kauleilepo Heiau (SIHP 50-50-13-110), Kauleiula Heiau (Site 109), Waikoloa Platform (Site 107), and Kaianalimu habitation site (Site 1491). In addition, a post-contact cemetery lies well south of the landfill project area on the southern side of Kawaipapa Gulch.

The closest archaeological investigation was carried out in 1984 on a c. 14-acre parcel of land (Landrum, 1984). There were no significant precontact cultural resources located during this reconnaissance level investigation.

The nearest archaeological inventory survey in the *ahupua`a* of Kawaipapa was carried out on a parcel that lies nearly 1 km to the southeast (*mauka*) of the landfill study area. This inventory survey was conducted by PHRI in 1993 for the Hana Medical Center parcel (Henry and Graves, 1993). This study located four sites—two complexes (Site 3150 and Site 3153), and two boundary walls (Site 3151 and Site 3152). Sites 3150 and 3153 were interpreted as temporary habitation areas that appeared to have been utilized periodically, possibly during the plantation era. All sites were interpreted as post-contact features.

The next closest inventory survey was conducted for the Hana Fire Station complex in 1993 by Xamanek Researches. This parcel of land lies slightly farther to the southeast of the Hana Landfill project area. There were no significant material culture remains encountered during testing on this previously disturbed portion of land (Fredericksen et al., 1993).

Richard Pearson (1970) carried out a reconnaissance survey of Wai`anapanapa State Park in 1969. He identified 34 archaeological features within the park, including a *heiau*, a trail, a petroglyph, five shelter caves, six *ahu*, two U-shaped enclosures, three shelter walls, two *hale* platforms, and several walls and enclosures. The park lies c. 3 km to the north of the current landfill project area.

## Settlement Pattern and Land Use

Previous archaeological work in the general vicinity of the project area suggests that the coastal portion of Maui was likely utilized in precontact times for habitation, coastal marine exploitation and ceremonial purposes (Fredericksen et al., 1993; Henry and Graves, 1993; Kirch, 1985; Pearson, 1970). However, it appears unlikely that this rugged inland portion of the Hana coast was heavily utilized for post-contact ranching activities, because it contains little soil and is very rocky.

## Expected Site Types in Study Area

Given that the project area is located on a rough *a`a* flow and has been previously impacted by clearing actions associated with landfill operations, we did not anticipate finding any significant material culture remains, with the possible exception of remnants of trails and/or ranch-era walls.

## **FIELD METHODS**

A pedestrian inspection of the study area was undertaken on 26 July 2003. Pedestrian sweeps were spaced c. 5 meters apart and paralleled the contour of the existing built-up portion of the landfill. Surface visibility ranged from fair to good, and was dependent upon vegetative cover. Written notes were kept and photographs were taken with a digital camera. Erik Fredericksen and David Paul carried out the assessment-level fieldwork. Erik Fredericksen was also the project director for this archaeological study. There was no subsurface testing was conducted for the Hana Landfill archaeological assessment study. However, it was possible to inspect cuts in graded and grubbed portions of the project area.

## **RESULTS**

There were no significant material culture remains noted during the inspection of the very rocky surface of the Hana Landfill parcel. In addition, there were no significant above ground structural remains noted in the areas adjacent to the project. Given the rough surrounding *a`a* terrain, it does not appear likely that the immediate study area was substantially utilized by precontact Hawaiians or during the post-contact sugar and ranch eras. In addition, the level of previous disturbance has likely eliminated any evidence of former land use on the project area.

## SUMMARY AND CONCLUSIONS

Based on the results of the walkover, it does not appear likely that significant material culture remains are contained on the current project area. In addition, the area has been heavily impacted by ongoing landfill operations, and it is unlikely that any sites—if there were any present—have survived.

### Mitigation Recommendations

Given the location of the area covered by this archaeological assessment and the degree of mechanical alteration, no further work is recommended for the present study area. However, it is important to note that the *makai* portion of the County of Maui landfill parcel fronts the Hana coast. While this area was not inspected because it lies well outside the existing project area, it is very likely that significant cultural resources are present. In addition, the landfill encroachment area lies on a portion of State Parcel 7. This overall parcel extends well *mauka* of the present project area, and does not appear to have been impacted by earthmoving activities associated with ongoing landfill operations. There has been no previous archaeological inventory work carried out on this State parcel.

It is recommended that the State Historic Preservation Division evaluate any future County of Maui landfill expansion proposals. It may be necessary to conduct archaeological inventory survey level investigation on any unaltered portions of the County landfill Parcel 12 or the State Parcel 7. It is further recommended that the County not expand the landfill facility towards the ocean.

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**Photo 1 – Hana Landfill, in vicinity of LP-1 monitoring well. View to the northeast.**



**Photo 2 – Portion of State Parcel 7 landfill encroachment. View to the southeast.**





**Photo 3 – Previously cleared area near HL-1 monitoring well. View to the northeast.**



**Photo 4 – Area in vicinity of active landfill shown on the upper right. View to the southeast.**

## **APPENDIX C-1.**

### **Archaeological Assessment Report (2015)**

**AN ARCHAEOLOGICAL ASSESSMENT OF A 6.4-ACRE  
PORTION OF LAND IN  
KAWAIPAPA *AHUPUA*‘A,  
HANA DISTRICT,  
ISLAND OF MAUI (TMK (2) 1-3-06:012 por.)**

**Prepared per the direction of:**

**Ali Meharazin,  
A-Mehr, Inc.  
Laguna Hills, California**

**Prepared on behalf of:**

**County of Maui  
Department of Environmental Management  
Wailuku, Maui**

**Prepared by:**

**Xamanek Researches LLC  
Pukalani, Maui**

**Erik M. Fredericksen**

***3 July 2015 (Draft)  
28 December 2015 (Final)***

## ABSTRACT

Xamanek Researches LLC conducted an archaeological assessment survey of a 6.4-acre portion of land in Hana, Maui during late May and early June 2015. The project area is located in Kawaipapa *ahupua`a*, Hana District, Maui (TMK (2) 1-3-006:012 por.). The study area lies *makai* of Waikoloa Road, and is part of the existing County of Maui Hana Landfill facility. Known as the *Makai* Landfill, the County plans to abandon this portion of the landfill operation, and carry out environmental remediation work by removing the old refuse. Given the near coastal location of the project area, the State Historic Preservation Division (SHPD) had previously indicated that an archaeological inventory/assessment survey was needed (SHPD DOC NO: 1503JP01). Given the narrow scope of the current project, Erik Fredericksen met with the Maui SHPD Lead Archaeologist to discuss proposed testing methodology within the 6.4-acre Area of Potential Effect (APE).

Project plans call for the eventual removal of the old *Makai* Landfill per the Final Closure Plan Hana Landfill Makai Side (Meharazin, 2015). This document was prepared by A-Mehr, Inc. on behalf of the County of Maui Department of Environmental Management, Wailuku, Maui. Environmental remediation plans call for the relocation of the waste matter to the *Mauka* Landfill, which is across Waikoloa Road, and is located on a portion of Parcels 12 and 7. The waste materials will be removed from the 6.4-acre APE of the *Makai* Landfill under the direction of a Hawaii professional engineer on behalf of the County of Maui, Department of Environmental Management, Wailuku, Maui.

The archaeological assessment survey utilized a pedestrian surface survey around the perimeter of the abandoned landfill, as well as mechanical subsurface testing in this area per previous discussions with the Maui SHPD Lead Archaeologist. A total of 14 backhoe excavations were utilized to assess subsurface conditions along the edges of the old *Makai* Landfill. Shallow fill deposits overlaid *a`a* lava clinker in sampled portions of the project area. Prior grubbing actions associated with the environmental remediation study had impacted the area around the perimeter of the old *Makai* Landfill. There were no significant material culture remains located during our surface inspection and subsurface testing of accessible portions of the project area. Given the location of the proposed environmental remediation project, monitoring by a qualified archaeologist is recommended during initial earthmoving activities around the margins of the old landfill, and near the base of the landfill - once waste material has been removed. The archaeological assessment survey was carried out per the direction of Mr. Ali Mehrazarin, A-Mehr, Inc., on behalf of the County of Maui, Department of Environmental Management, Wailuku, Maui.

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Figure 1: Topographic map showing the general location of the project area (TMK (2) 1-3-06:012 por.).



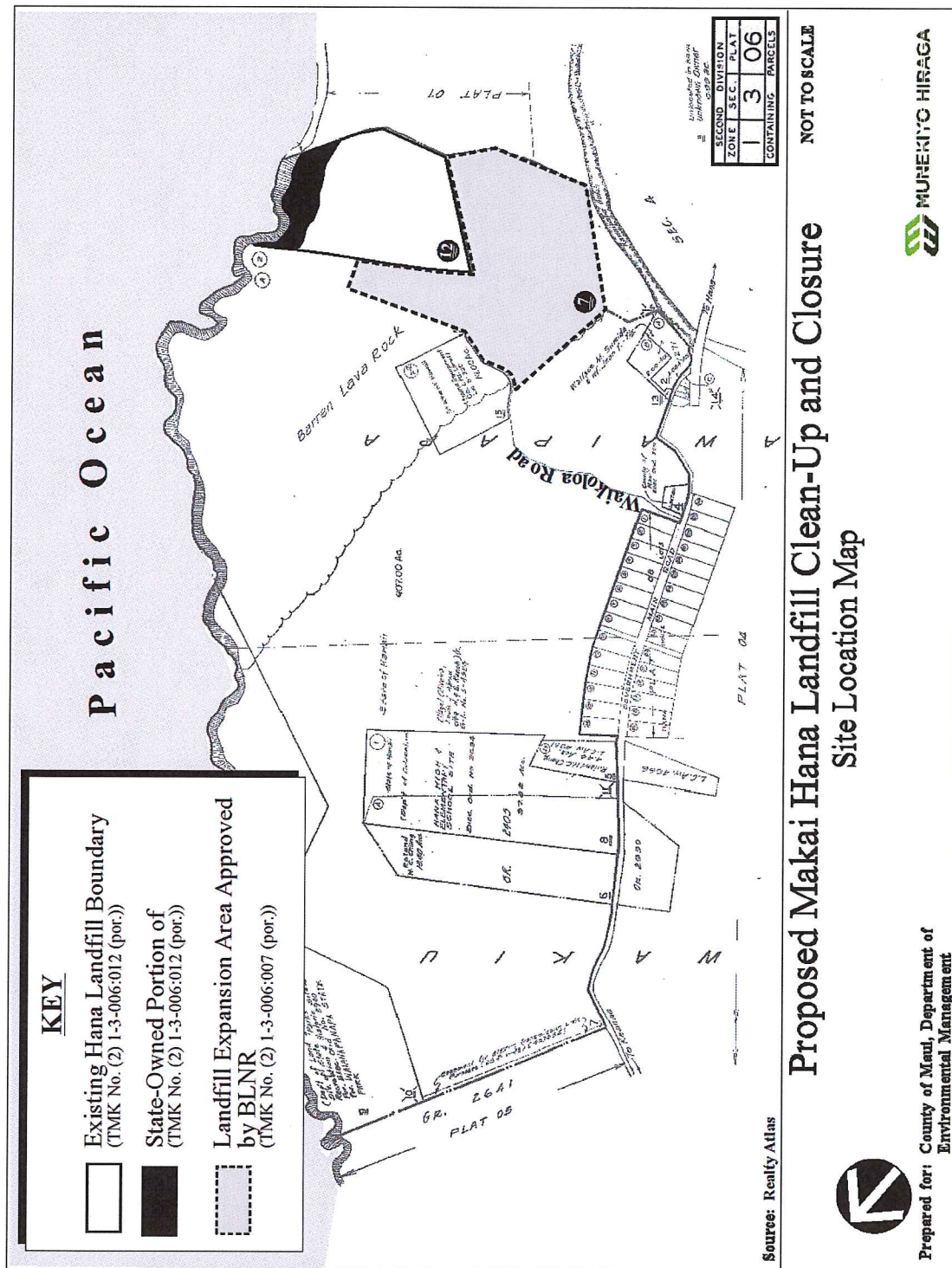


Figure 2: Tax Map Key showing Parcel 12, Hana Landfill facility parcel.

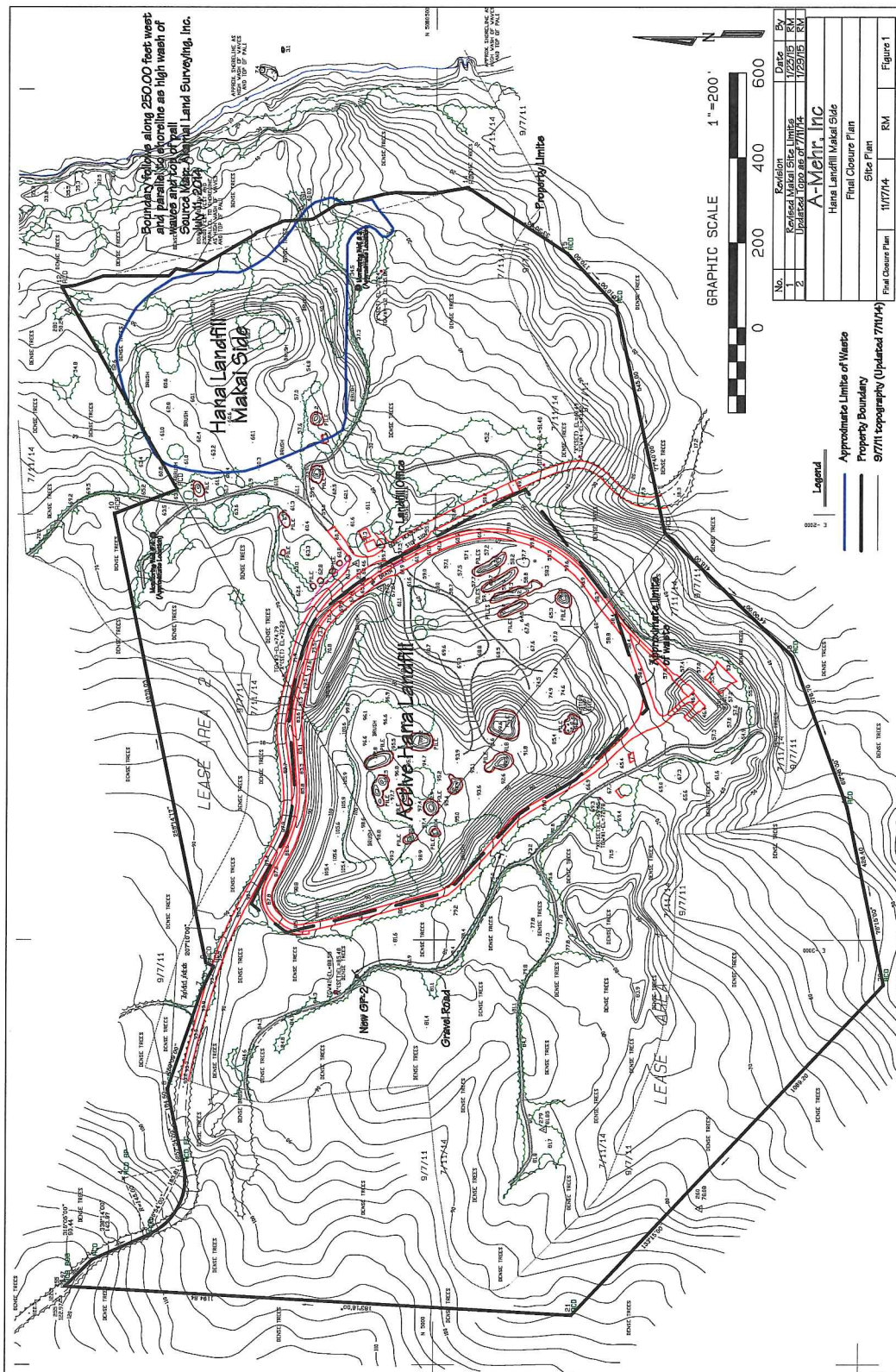


Figure 3: Topographic map depicting the Makai Landfill project area (in blue at top), Hana.



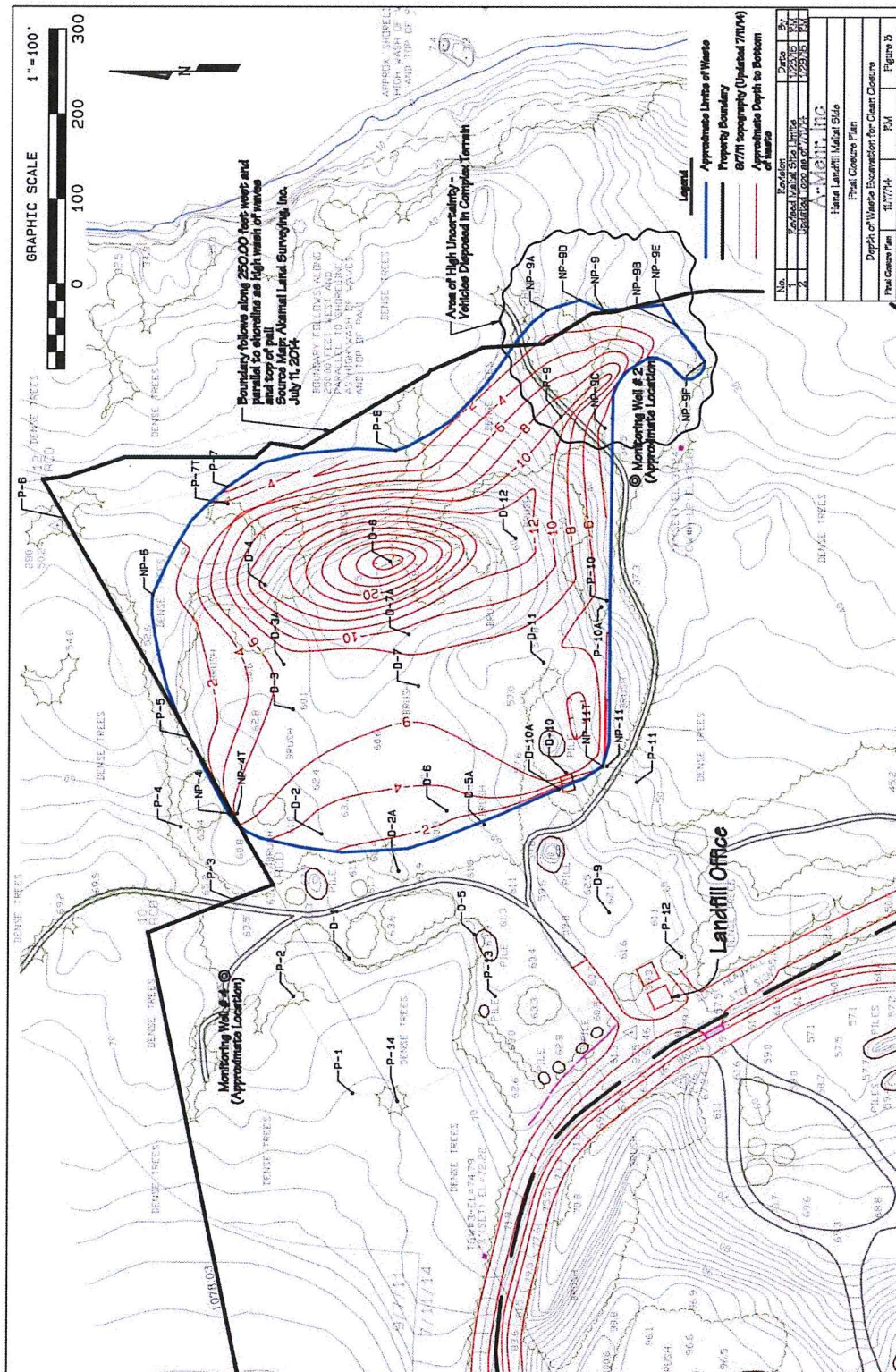


Figure 4: Section of topographic map depicting the Makai Landfill APE (in blue).

## INTRODUCTION

Mr. Mich Hirano of Munekiyo Hiraga, contacted Xamanek Researches LLC about conducting an archaeological survey on a portion of land, which is located within Kawaipapa *ahupua`a*, Hana, Hana District, Maui (TMK (2) 1-3-06:012 por.). Given the location of the subject project, the State Historic Preservation Division (SHPD) Maui office had previously indicated that an archaeological survey was needed (SHPD DOC NO: 1503JP01). Project plans call for the eventual removal of the old *Makai* Landfill per the Final Closure Plan Hana Landfill Makai Side (Meharazin, 2015). This document was prepared by A-Mehr, Inc. on behalf of the County of Maui Department of Environmental Management, Wailuku, Maui. Environmental remediation plans call for the relocation of the waste matter from the abandoned *Makai* Landfill to the current *Mauka* Landfill, which is across Waikoloa Road, and also contained on a portion of Parcel 12. Remediation efforts will necessitate the removal of the existing refuse within the abandoned 6.4-acre Area of Potential Effect (APE) of the *Makai* Landfill. The current project APE was determined by a prior soil test study (in Meharazin, 2015) carried out in support of this environmental remediation project. Given the narrow scope of the current project, Erik Fredericksen met with the Maui SHPD Lead Archaeologist to discuss the proposed testing methodology within the 6.4-acre Area of Potential Effect (APE). Following concurrence, we prepared a cost proposal for the archaeological inventory/assessment survey of the APE to the project engineer, A-Mehr, Inc. Xamanek Researches LLC was subsequently contracted to carry out the archaeological survey for this portion of land in Hana, Maui.

The 6.4-acre APE is located within Kawaipapa *ahupua`a*, Hana District, Maui (TMK (2) 1-3-006:012 por.). The study area lies *makai* of Waikoloa Road, and is part of the existing County of Maui Hana Landfill facility (Figures 1-4). As noted above, project plans call for the phased relocation of the *Makai* Landfill waste matter to the actively used *Mauka* Landfill, which is across Waikoloa Road. Both landfills are contained within a portion of Parcel 12 (refer to Figure 3). The following report summarizes the results of our archaeological assessment survey. This report has been prepared per the direction of Mr. Ali Mehrazarin, A-Mehr, Inc., on behalf of the County of Maui, Department of Environmental Management, Wailuku, Maui.

## STUDY AREA

The 6.4-acre *Makai* Landfill project APE is a part of TMK: (2) 1-3-06:012 (por.), which consists of about 29 acres that was conveyed to the County of Maui by Executive Order in 1985. The overall Hana Landfill facility is currently managed and operated by the County. This portion of Hana is noted as “Barren Lava Rock” on the State Tax Key map of the area.

Erik Fredericksen first visited the Hana Landfill on 24 July 2003 and met with staff of the Solid Waste Division of the County of Maui. An archaeological assessment of a portion of the landfill was next conducted on 26 July 2003 (Fredericksen, 2003). No significant material culture remains were noted during the pedestrian survey for this earlier work, and no subsurface testing was undertaken at the time. The project area was composed of relatively level *a`a* land, the bulk of which had been bulldozed and/or grubbed in the last few years prior to our fieldwork.

It is estimated that the current *Makai* Landfill study area ranges from circa (c.) 55 feet to 65 feet AMSL. The study area essentially lies on an *a`a* flow that contains generally thin soil cover. Undisturbed portions of land adjacent to the project area and some previously cleared sections to the south of the study area are generally heavily vegetated. However, grubbing and grading actions associated with ongoing County landfill operations and more recent soil testing done in conjunction with the planned environmental remediation effort have impacted much of the APE, and all of its margins. The bulk of the plants observed in the vicinity of the survey area consisted of non-native species, including grasses and annual weeds near the ground surface, with ironwood (*Casuarina equisetifolia*) trees dominating the overstory in areas where trees are near the APE. Isolated *kukui* (*Aleurites moluccana*) and *hala* (*Pandanus tectorius*) trees were noted in some areas well outside the APE.

It was evident at the time of our 2015 surface inspection around the *Makai* Landfill that the study area had been previously disturbed. During our walkover, scattered modern materials were observed on the existing surface. In addition, abandoned vehicles were noted within the *Makai* Landfill. Finally, recently imported cinder fill material was noted within recently grubbed portions of the APE. This imported material is utilized on a daily basis to cover refuse in the landfill facility.

The overall parcel on which the *Makai* Landfill is situated (Parcel 12) borders the ocean on the northeastern side<sup>1</sup> and State land essentially bounds the County property

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<sup>1</sup> The coastal portion of Parcel 12 to the northeast (*makai*) of the *Makai* Landfill APE is State managed.

elsewhere. State Parcel 7 lies *mauka* (west) of the active landfill operation. A County road - Waikoloa Road - crosses the landfill property in a northeast/southwest manner. It is estimated that this portion of Maui receives about 100 inches of annual precipitation. Soils in the general area are composed of Malama extremely stony muck (3-25% slopes), which consists of a thick layer of dark organic muck that overlies *a`a* lava (Foote et al., 1972). This type of soil is very permeable, has a slow run-off and is subject to a slight erosion hazard.

## BACKGROUND RESEARCH

### Oral History

Hana is steeped in legend and was a major center of population and political power in precontact Hawaii. Hana contains 32 previously recorded *heiau*, including the restored Pi'ilanihale, which is the largest *heiau* in our state. Hana is a place where the landscape was reportedly created by gods and goddesses, and a residence of many chiefs of Maui (Beckwith, 1970; Fornander, 1918; Sterling, N.D). Myths are associated with 6 deities – Pele, Pu'uhele, Kana, Kanaloa, Maui, and Ku'ula. Pele was said to have been killed by her sister Namakaokaha'i, and her physical remains left to form the hill called Ka Iwi o Pele, located on the coast. Another version has Pele creating 'Alau Island, just offshore of Ka Iwi o Pele.

Pu'uhele, a sister of Pele, was said to have been brought to Hana as a child, but was left behind because she continually bit the breast as she was being fed. The place where she stayed was Pu'u Ka'uiki. In another version, she is not born as human, but as a bloody fetus, which was thrown away by Pele and another of her sisters. Pu'uhele landed at Nu'u, and was turned into a beautiful woman who traveled to Wananalu, where she was killed for trespassing. The hill, Ka'uiki rises from the spot where she was buried (Fornander, 1918; Beckwith, 1970).

Another legendary resident was Ku'ula, who introduced the octopus lure, the fishpond, and the fishhook to human beings. He lived with his wife Hina, and son Ai'ai at the foot of Ka Iwi o Pele, and constructed and filled with fish, the first fishpond for the chief of Hana. Ai'ai, taught the people of Maui and the other islands how to use the things his father had given them, and how to worship Ku'ula (Fornander, 1918; Beckwith, 1970;). Throughout the islands fishing shrines called *ko`a*, were built in the past, which contain Ku'ula stones, oblong water-worn stones, made into alters or houses. Here rituals were performed to assure fishermen an abundant catch from the sea (Kolb, Orr and Conte, 1993). He also erected the stone, Makakilo'i'a, on Ka'uiki which

fishermen have since used as a vantage point for finding schools of fish (Sterling, n.d.; Beckwith, 1970).

The deities Kane and Kanaloa were said to be residents of the island of Maui in ancient times. Two rock pillars just off the base of *Pu`u Ka`uiki*, represent the coconut trees in their garden. Several legends of Maui are connected with Hana. One has him fishing in the fishing grounds known as Po`o, in the area of Ka Iwi o Pele. He tries to catch the fish Luehu on the night of Lono, an act, which would unite all of the islands into one. As he hooked the fish and tried to bring it in, his brothers broke the spell by looking back, and the fish escaped, thus losing the chance to unite the islands. Maui is also said to have stood on *Pu`u Ka`uiki*, lifted the sky at Hana, so that people could stand upright. Hana is sometimes referred to as “Hana of the low sky” (Beckwith, 1970).

### **Precontact period**

Hana was a favorite place home for many chiefs. One of the earliest was Hua, who lived in the 12<sup>th</sup> century and is credited with building 2 *heiau*, Honualua and Kaiawalu, on *Pu`u Ka`uiki*, neither of which are still in existence (Beckwith, 1970). It is said that a Protestant and a Catholic church are built on those sites today (Kolb, Orr and Conte, 1993). Hua is said to have caused a 3½ year long drought, by killing a high priest who criticized his wars. He reportedly died on Hawai`i, the victim of thirst and famine. A saying – “rattling are the bones of Hua in the sun” is used as an admonition to those who might be wicked (Ibid.).

During the 17<sup>th</sup> century, the districts of Maui were united by high chief Pi`ilani. At the same time, much of the island of Hawai`i was united under another chief, `Umi. While conditions of warfare often existed between the islands, a period of peace prevailed when `Umi married Pi`ilani's daughter, Pi`ikea (Kamakau, 1961; Fornander, 1969). Pi`ilani's sons, Kihapi`ilani and Lonopi`ilani fought for control of Maui. Kihapi`ilani killed his brother, with the aid of `Umi, who sent an invasion fleet to Hana. Kihapi`ilani's subsequent reign was a peaceful one. He is credited with building the paved roadway that goes around the island of Maui (Kolb, Orr, and Conte, 1993).

Hana continued to remain under Maui chiefs until the middle of the 18<sup>th</sup> century when both Hana and the Kipahulu district fell to the Hawai`i Island chief, Kalani`opu`u. Maui chief Kamehamehanui tried in vain for twenty years to recapture the territory. Kalani`opu`u repeatedly tried to conquer Maui, but the younger brother of Kamehamehanui, Kahekili stubbornly resisted (Kolb, Orr, and Conte, 1993). Kalani`opu`u died in 1782, and upon hearing of his death, Kahekili attacked his fortress, which was located at *Pu`u Ka`uiki*. The defenders were able to hold out for more than a year because they possessed a source of fresh water. When Kahekili learned of this water supply, he cut it off and quickly defeated the Hawaiian warriors (Fornander, 1969). Kahekili once again ruled the island of Maui, and died of old age in 1794. The island of Maui then fell to another Hawai`i Island chief, Kamehameha, who eventually conquered the other islands as well and established the kingdom of Hawai`i (Ibid.).

## Early post-contact period

In November of 1778, the ship Resolution, under the leadership of Captain James Cook, made landfall on Maui. While anchored off Hana, Captain Cook entertained Kalani`opu`u and Kamehameha aboard ship and Captain Clerke, aboard the sister ship Discovery, entertained Kahekili while anchored off Wailuku. Neither Cook nor Clerke knew of the rivalry between these chiefs (Fornander, 1969). In fact, Cook thought that Kalani`opu`u and Kamehameha were chiefs of the Hana region.

Traditions and early 19<sup>th</sup> century records add information about this period. Pu`u Ka`uiki is known as the birthplace of Ka`ahumanu, the favorite wife of Kamehameha I. Hana was the land (*`aina*) of her father, *ali`i nui* Ke`eaumoku Papaiahehe. When he died in 1804, it passed to Ka`ahumanu's brother, Kahekili Ke`eaumoku and then to Ka`ahumanu in 1824. Upon her death in 1832, her *`aina* and title passed to her niece Elizabeth Kaho`anoku Kina`u, daughter of her sister, Kaheihimalie and Kamehameha I (Kolb, Orr and Conte, 1993).

Kina`u died of mumps in 1839, and her *`aina* went to her 4-month old daughter, Victoria Kamamalu. John Papa `Ii acted as her executor. Her older brothers Alexander Liholiho and Lota Kapuaiwa Kamehameha became kings Kamehameha IV and V, respectively (Ibid.). Kamamalu was forced to turn over most of her land to the government during the Great Mahele of 1848.

The process of land grants is discussed by Chinen (1958). Native Hawaiians wishing to claim lands on which they had been living were required to appear before the Board of Commissioners to Quiet Land Titles and present testimony. When a claim was accepted, a Land Commission Award was granted. The new owner must then pay one third the value of the land to the government in cash or unused land. When this was done, a Royal Patent was then issued, giving the tenant full title to the land (Ibid., pp. 12 – 14). By 1850, the government began selling lands to Native Hawaiians and foreigners, and these lands were noted as Royal Patent Grants, or simply – Grants (Ibid., p. 27).

Handy and Handy (1972, p. 505) state that subsistence in this area depended mainly on sweet potatoes and fish. Land Commission Award records for parcels in the general vicinity to the south indicate that land was used for taro production (both wet and dry), sweet potatoes, coconuts and sugar cane. Pigs were also likely raised.

## Mahele Awards

The study area is a 6.4-acre portion of TMK (2) 1-3-06: 012, and was conveyed to the County of Maui by Executive Order. A total of five Land Commission Awards for Kawaipapa *Ahupua`a* are present in the Indices and in the Wai`hona `Aina database (see Table 1). They are: LCA 4534, 0.70 acres in 1 *apana* to Mose Ulunahele for *kihapai* and coconuts; LCA 4566, 5.19 acres 1 of 2 *apana* to Waihineaa (ND); LCA 4846, 7.00 acres in 1 of 3 *apana* to Kaholokai for *kihapai*; LCA 5149 claimed by Kahinawa, but not awarded; and LCA 5185B claimed by Kaholokai and awarded under LCA 4846.



There were two awards in the smaller, adjacent Niumalu *Ahupua`a* to the east. These awards included LCA 4739-1, 2, 3, 15.65 acres in 1 *apana* to Miki for taro (wet) and sweet potato; and LCA 5180, 17.17 acres in 1 *apana* to Kuamiohea.

The adjacent Wakiu *Ahupua`a* to the west of Kawaipapa *Ahupua`a* contains 4 awards. These Land Commission Awards consist of LCA 4665, 11.90 acres in 1 *apana* to Pua Lau for potatoes; LCA 4666, 5.14 acres in 1 *apana* to Puhake; LCA 4844 claimed by Kuana, but not awarded; and LCA 4931, 5.00 acres in 1 *apana* to Kaahina for a house lot. While there are not many Land Commission Awards that were awarded in Kawaipapa *Ahupua`a* as well as the two adjacent *ahupua`a*, it is interesting to note that available information indicates that awards were for garden plots, coconut, wet taro and house lots.

**Table 1: Land Commission Awards in the vicinity of the project area**

LCA	TMK	<i>Ahupua`a</i>	Claimant	Land Use	Size <sup>2</sup>	Comments
4534	1-3-4	Kawaipapa	Ulunahele, Mose	Kihapai, coconuts	0.70	1 <i>apana</i>
4566	1-4-3	Kawaipapa	Waihineaa	ND	5.19	1 of 2 <i>apana</i> awarded
4846	ND <sup>3</sup>	Kawaipapa	Kaholokai	kihapai	7.00	1 of 3 <i>apana</i> awarded
5149	ND	Kawaipapa	Kahinawa	ND	-	No award
5185B	ND	Kawaipapa	Kaholokai	ND	-	Award under LCA 4846

## Post-1850 period

The latter part of the 19<sup>th</sup> century saw the rise of sugar production as an increasingly important economic activity in the Hana area. Begun in 1851 by a sea captain, George W. Wilfong, the Hana Plantation was one of the earliest commercial ventures in the islands (Kolb, Orr and Conte, 1993). He did not work well with native Hawaiians, who found his methods intolerable. He sought labor elsewhere, and imported Chinese workers to Hana in 1852. The Chinese were much more accustomed to long hours of tedious contract labor, but left the plantation after their three-year labor contracts had been fulfilled. They then went into business for themselves, or obtained land to farm (Youngblood, 1992). Wilfong's sugar mill burned to the ground in the early 1850's. Two Danish brothers, August and Oscar Unna re-established Hana Plantation in 1862 (Ibid.). Their plantation agents were C. Brewer and Co., a trade company founded by sea captain James Hunnewell in 1826, and taken over by yet another sea captain, Charles Brewer in 1843 (Kolb, Orr, and Conte, 1993).

By 1868 a new source of immigrant labor had to be found, and Japanese laborers were imported to Hana. By 1876 a Reciprocity Treaty had been negotiated between King Kalakaua and the United States, which did away with the 2 cent per pound tariff on

<sup>2</sup> Size in acres

<sup>3</sup> ND = No data

Hawaiian sugar. In 1883, there were 6 separate sugar plantations arrayed along the rocky Hana Coast; Kaeleku Sugar Co., Hamoa Agricultural Co., Kawaipapa Agricultural Co., Hana Sugar Co., Reciprocity Sugar Co., and Haneo'o Agricultural Co. (Youngblood, 1992).

August Unna and his Danish engineer, Christian Hedemann, modernized the Hana Plantation, replacing the mule-driven carts with locomotives, and 3-roller mills in the early 1880's. Labor shortages plagued the Hana operation, however, and additional laborers were recruited from the New Hebrides and Gilbert Islands (Kolb, Orr, and Conte, 1993). All of these expenses left Unna heavily in debt, and upon his death in 1885, the Hana Plantation was placed in receivership and sold in 1889 to M. S. Grinbaum & Company, its major creditor. The holdings of Hana Plantation (founded 1851) and the old Reciprocity Sugar Company<sup>4</sup> (founded 1883) were combined to establish the Hana Plantation Company (Ibid.).

In 1905 the company was reorganized and its name changed to Ka'eleku Sugar Company. Plantation agents T. H. Davies & Co. assumed ownership in 1908, and the sugar plantation continued operation. In 1933 the company changed owners yet again, to the estate of W. G. Irwin and C. Brewer & Co., both previous owners at one time. Records from the Hawaii Sugar Planters Association show that on December 31, 1945, Ka'eleku Sugar Company was liquidated (Kolb, Orr and Conte, 1993). Sugar workers were becoming unionized, and C. Brewer & Co. feared that the Hana operation could not pay the higher wages that would be demanded. Rather than risk antagonizing the union, which might put their other sugar operations in jeopardy, they closed Ka'eleku, leaving hundreds of plantation workers unemployed (Youngblood, 1983).

Paul I. Fagan had purchased the Hana Sugar Company from the Unna brothers in the 1930's, and had left his investment alone until the mid 1940's, when he decided to retire in Hana. He saw that sugar did not have a bright future in Hana, and decided to undertake cattle ranching. He closed his cattle ranch on the east end of Moloka'i, acquired 14,000 acres of land in and around Hana, and shipped his white-faced Herefords to Maui. Sugarcane land was planted with pangola range grass to feed the cattle. Ranch lands were cleared in the 1960's with bulldozers, resulting in numerous piles of wood and dirt, which are still apparent in some areas today. In addition, alien plant species, such as lantana and Christmasberry have come to dominate many previously disturbed areas.

Not only did the shift from sugar to cattle take place, but a new industry – the visitor industry of Hana began. Fagan saw tourism as a way to produce jobs and money for the people of Hana, and built the first resort hotel, the Ka'uiki Inn in 1946 (later renamed the Hotel Hana-Maui). This facility was designed as a first-class

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<sup>4</sup> Both Hana Plantation and Reciprocity Sugar Company had their own mills and piers. Reciprocity Sugar Company closed down in 1902. Much of its land was leased to Ka'eleku Sugar Company, which had about 15,000 acres in the Hana area by 1913, about one-fifth of which was cultivated. In 1940, Ka'eleku produced 8,000 tons of sugar, although the mill was capable of an output 4 times as great (Youngblood, 1983).

accommodation for first-class travelers (Youngblodd, 1983). Hana was eventually connected to the rest of Maui when the State paved the Hana Highway in 1962, with additional improvements in 1982. More and more tourists find their way to the Hana Coast, but the town still maintains the sort of isolation it has always had.

## **Current period**

Presently, ranching activities continue as an important facet in the local economy. Tourism continues to grow; however, and plays an increasingly significant economic role in Hana. Finally, development of this area, as elsewhere on our island, continues to expand and place upward pressure on property values.

Historic agricultural land use in the Hana area has undoubtedly had an effect on surface and subsurface archaeological features that were formerly present. As Cleghorn states in one of the earlier reports on archaeological work in Hana (1988):

“...this area was extensively utilized in historic times, first for commercial sugar production and later for cattle ranching. There is strong possibility that these activities obliterated evidence of earlier land use, leaving an extensively flattened and modified landscape with no remaining surface archaeological features.”

The area in the vicinity of the Hana Landfill project does not appear to have been well suited for ranching, because of the very rocky nature of the landscape. The State Tax Map Key for this area contains the written description “Barren Lava Rock”.

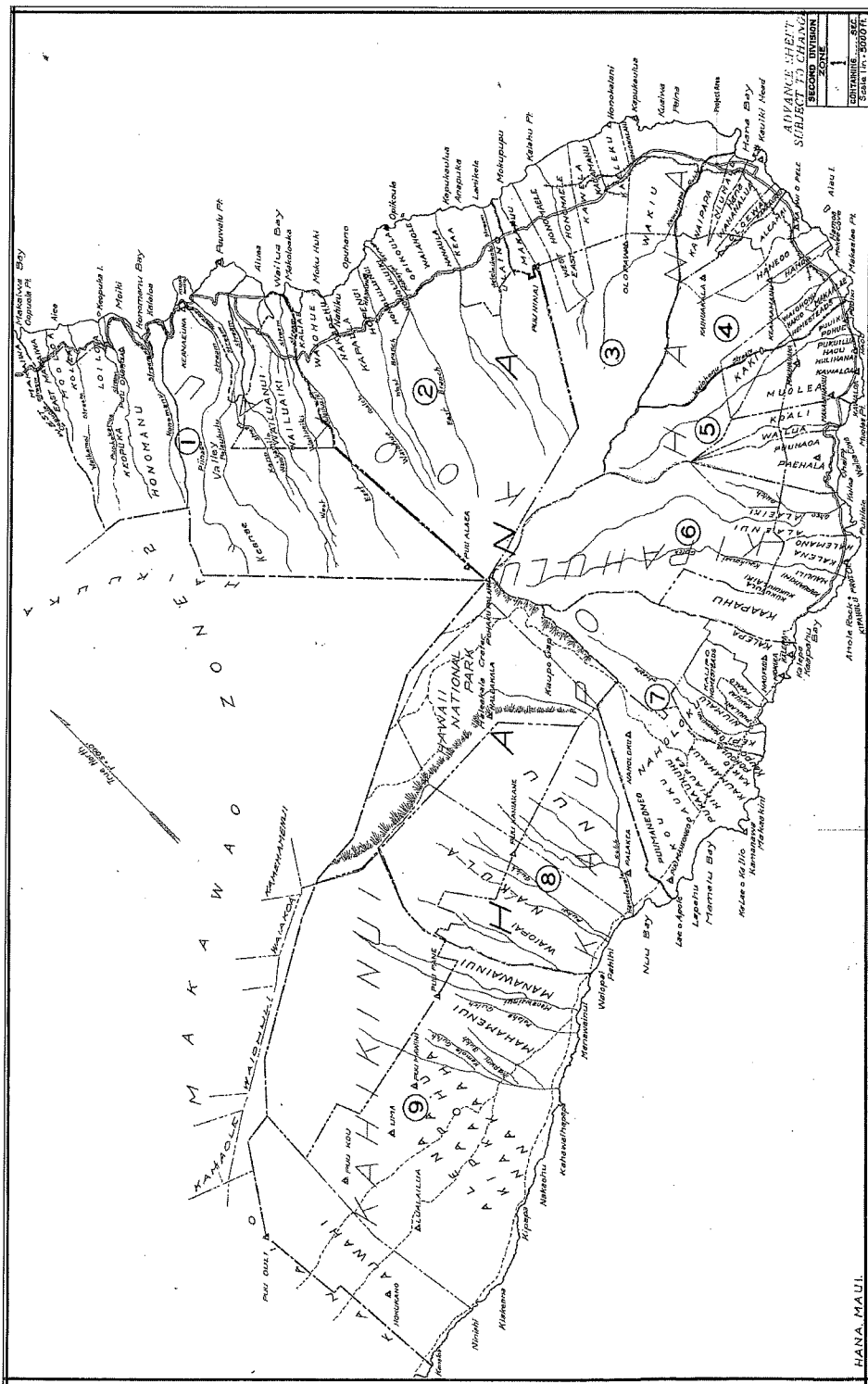


Figure 5: Tax Map Key depicting Hana lands.

## PREVIOUS ARCHAEOLOGICAL WORK

### Previous Archaeology in the general area

In his island-wide survey of *heiau* on Maui, Winslow Walker (1931) identified several ceremonial structures in this portion of the Hana District: Site 102, Pi'ilanihale Heiau on Kalahu Point; Site 103 - Kuakeali'i Heiau north of Wai'anapanapa Park; Site 104, Ohala Heiau on Pukaulua Point; Site 105 - Kaniomku Heiau *mauka* of Hana Highway, Site 106 - Kawaipapa Heiau southwest of Hana Highway and the project area; Site 108 – an unnamed heiau on Keanini Point; Site 109 – Kauleiula Heiau on Nanualele Point; Site 110 – an unnamed *heiau* in Kainalimu to the north of Hana Bay; Site 111 - Honua'ula Heiau near the base of Pu'u Ka'uiki; and Site 112 – Kuawalu Heiau to the southwest of Pu'u Ka'uiki.

An archaeological survey was carried out by Lynn Nakkim, who lived in Hana for about 25 years. She visited several of the *heiau* that were reported by Walker, and added details not mentioned by him. She was unable to relocate Pakiokio Heiau<sup>5</sup> (Nakkim, 1969-70, in Kolb, Orr, and Conte, p. 27).

As part of the State Historical Sites Survey conducted in 1973, Hommon and Connolly mapped and surveyed sites in Kawaipapa *ahupua'a*, and elsewhere in Hana. Some of the sites had been noted by Nakkim. A walled complex she referred to is called the Hamoa Complex was given the site number 50-50-13-1487. This complex consists of over 100 features, most of which appear to have agricultural functions. They fall into 5 types – agricultural clearings (100); walls (6); terraces (3); a ditch with rubble walls, and 2 stone mounds (Hommon and Connolly, 1973, in Kolb, Orr and Conte, pp. 28-29). Again Pakiokio *heiau* could not be relocated, but Connolly surveyed and mapped Hale O Lono *heiau* (Site 50-50-13-123) and recommended that it be given “valuable status”, because of its interpretive and research potential and close association with Kaluanui *heiau* (Ibid.). Kaluanui *heiau* (Site 50-50-13-120) was also surveyed, and its location “on a small knoll affording a very impressive view of Hawaii, the valleys between the site and the sea, and Alau Island” are noted. It was recommended for “valuable status” as Kaluanui Complex (Ibid., p. 30).

In 1987, the B. P. Bishop Museum conducted preliminary archaeological investigation of Hana Ranch Lands. The study consisted of 3 tasks - a review of literature, analysis of aerial photographs of Hana Ranch lands, and a brief field inspection to determine the potential of archaeological sites found on the photos. A search of Bishop

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<sup>5</sup> Site 121 lies to the east of the *heiau* that are mentioned above.

Museum files revealed 32 archaeological sites on ranch lands, 20 of which were *heiau*, most of which are destroyed. Other sites include 5 fishponds, the fortress of Ka'uiki Hill, pictographs, and various habitation sites (Cleghorn and Rogers, 1987).

As a result of the aerial photo analysis and field inspection, an additional 16 sites have been minimally recorded, most of which are probably related to agriculture or habitation functions (Ibid., ii).

Sixteen sites were investigated in the 1987 survey, including C-shapes, *'ili'ili* pavements, terraced platforms, walls, lava tubes, a rock shelter, and various stone structures of undetermined function (Ibid., pp. 18-19). Most sites are associated with either agricultural activities or habitation. A total of 48 archaeological sites have been recorded on ranch lands. Of these, about 20 have been destroyed - most likely as a result of sugarcane cultivation. The remaining sites show various degrees of disturbance. It was noted that every vegetated area that showed up on the aerial photos and was inspected by the researchers contained archaeological site remains (Ibid., p. 26).

Former Maui SHPD staff archaeologist, Theresa Donham, recorded a site on Kaholaiki Beach, near Mokae Cove in Mokae *ahupua'a* (Site 50-50-13-2835). This appears to be a large habitation site, which includes water-worn stone pavements containing pockets of bone and shell midden and charcoal concentrations. Human remains were found eroding from the beach cut, and were subsequently disinterred by Donham (1991, in Kolb, Orr and Conte, p. 32).

Four hundred acres of land in Haneo'o, Aleamai, and Papa'auhau were surveyed for a proposed country club by Cultural Surveys Hawaii. These lands were *mauka* of Hana Highway, south of Hana town. They found 51 archaeological sites, 13 of which were interpreted as habitation sites and the remainder as agricultural. Radiocarbon dates were obtained for 3 habitation sites - AD 1345-1650; AD 1425-1959 and AD 1640-1950 (Borthwick et al., 1992, Ibid.). The majority of the survey area had been heavily impacted by sugarcane cultivation and ranching activities, and the sites were found scattered in areas located on the fringe of the cane fields.

An archaeological survey of Hamoa *ahupua'a* to the southeast of Hana Town was inspired by the nomination of the Hamoa Archaeological complex to the Historic Sites Register in 1990. Community members felt that the boundaries were incomplete, and that many more sites existed *mauka* of Hana Highway as well. The Hana Cultural Center spearheaded a volunteer program to complete the survey at a minimum cost (Kolb, Orr and Conte, pp. 2-5).

A total of 51 acres were surveyed *mauka* of Hana highway, and 74 features were located and mapped. Pakiokio *Heiau* (Site 50-50-13-121), which had not been found by earlier surveys, was located during this survey. The various sites were classified by feature types. These feature types included: Alignment (1=1.3%); Enclosure (8=10.7%); Modified Outcrop (2=2.7%); Mulch Pit (31=41.3%); Railroad grade (1=1.3%); Rock

Shelter (4=5.4%); Terrace (19=25.6%); Wall (7=9.4%); and Walled Terrace (1=1.3%) [Ibid., p. 37].

Limited excavation was undertaken by volunteers at 10 features – 5 located *mauka* of Hana Highway and 5 on the *makai* side, which included Kaluanui and Hale O Lono *heiau*, the Hamoa Complex and Kaholaiki dune. Radiocarbon dates were obtained at Kaluanui *heiau* (AD 1659-1955); Hale O Lono *heiau* (AD 1440-1954, 1443-1953, 1419-1660); Kaholaiki Sand dune (AD 1173-1380); Site 50-50-13-3721 – a rectangular habitation enclosure (AD 1295-1955); and Site 50-50-13-3724 – a double-U shaped agricultural wall (AD 1459-1954) [Ibid., pp. 43-45].

Kolb discusses the settlement patterns in the general area (Ibid., pp. 96-97):

“A number of models of Hawaiian cultural change currently exist (e.g. Cordy 1981, Kirch 1990), however most agree that colonizing settlements were first established on the windward portions of the Hawaiian chain ca. A.D. 300-600. As the population grew, permanent settlements in the agriculturally favorable, windward areas probably increased in size and number ca. 600-1100. In windward areas like Hamoa, residents intermittently exploited coastal resources such as ocean fish and shellfish, and used upland areas for dryland agricultural production. Permanent shelters by permanent residential ritual structures. [sic.] By 1650, permanent coastal settlements focused upon intensive exploitation of ocean resources while permanent upland settlements focused more upon agricultural production of dryland crops...

At the height of traditional society ca. 1650-1820, Hawaiian society had reached its apex in terms of population growth and social complexity. No doubt the same existed in Hamoa as well. The regional chronology of Hamoa consists at present of only six age determinations for a concentration of two habitation sites, one agricultural site, and two *heiau* sites. All of these sites date to after the island was unified, and Hana district was already integrated to the rest of the island. The earliest date comes from Kaholaiki, the coastal site in Mokae at 67% confidence. The basal pavement dates to the thirteenth century, about the time of the paramount chief Hua, using 20 years per generation of the chiefly lineages... Hale O Lono and habitation Site #3271 date ca. 1400-1650, before island unification under Pi'ilani, when the independent line of chiefs Hana ruled [sic.]. The remaining two sites, the agricultural enclosure at #3724 and Kaluanui *Heiau* date after ca. 1650, the two centuries preceding contact which represent the peak of traditional Hawai'i social complexity. Thus it is no surprise that an upland agricultural site as well as the largest *heiau* in the area date to this period before contact, when complex society reached a peak, and agricultural output was at its peak to not only feed the populace but to provide adequate surplus for the chiefs and their retainers and warriors.”...

Kolb concludes that the Hamoa archaeological landscape is “extremely complete and diverse, incorporating a mixture of habitation, agriculture, ritual and post-contact sites.” While this represents a typical aboriginal pattern, Hamoa is unique in that so much remains in an area that had been extensively modified by bulldozing and cattle ranching (Ibid., pp. 104-105). One can only speculate on what has been destroyed in this and other portions of Hana that have been impacted by post-contact commercial agricultural and ranching activities.

Xamanek Researches carried out an archaeological monitoring program for the Hana Ballpark light installation project in 2002 (Fredericksen and Fredericksen, 2002). The ballpark lies an estimated 1.5 km to the southeast of the project area. One probable precontact burial was located during this project and designated Site 50-50-13-5190. In addition, three indigenous stone tools – a hammerstone, a hammerstone/chopper, and a pecking stone were located during the monitoring process. However, there were no intact cultural deposits encountered. The Site 5190 burial was preserved in place with the assistance of Mr. Mike Minn, Maui/Lana'i Islands Burial Council (MLIBC) representative for Hana.

Two additional probable precontact burials were inadvertently disturbed during the course of separate ongoing improvement projects on the grounds of the Hotel Hana Maui, which is adjacent to portions of the Hana Ballpark. Xamanek Researches was called in to mitigate both finds. The first burial was encountered in 2003 in a previously disturbed area that was ultimately transformed into a spa for the Hotel Hana Maui (Fredericksen, 2003). This burial had been partially disturbed by the previous placement of a water line, as well as general landscaping actions. Three water worn cobbles and 4 pieces of weathered coral were found associated with the burial pit. The burial was preserved in place and designated Site 5500. The second burial was located near the end of 2004 during excavation activities associated with the installation of underground utilities for the hotel (Fredericksen, 2004). This burial was essentially undisturbed and is interpreted as a probable precontact burial, based on the presence of weathered coral and a basalt chopper. Both sets of human remains were preserved in place with the help of Mr. Mike Minn, past MLIBC representative for Hana.

Other archaeological studies have been carried out in the adjacent Wakiu *ahupua`a* to the north of Kawaipapa *ahupua`a*. These studies include early work by Pearson (1970), which consisted of a reconnaissance survey of Wai'anapanapa State Park, a 1975 walk through study of a portion of a large burial area to the northeast of the Hana High School campus, a 1984 reconnaissance of this burial area and cemetery, and a more recent 2002-2003 inventory survey of Wai'anapanapa State Park, a portion of which also lies in Kawaipapa *ahupua`a*.

Wai'anapanapa State Park lies to the northeast of the current project area. Richard Pearson (1970) originally carried out the first work in the park area – at the reconnaissance level. He documented Honolalani Village (Site 1230) at this time. Also known as the Waianapanapa Complex, it is composed of 33 archaeological sites with 50 features within the park, including a *heiau*, a trail, a petroglyph, five shelter caves, six *ahu*, two U-shaped enclosures, three shelter walls, two *hale* platforms, and several walls and enclosures.

A more recent inventory survey of Wai'anapanapa State Park (c. 111 acres) was carried out in 2002-2003 (Haun et al., 2004). This more intensive study documented a total of 59 sites with at least 119 features. Sites included walls, rock cairns, rock mounds, terraces, enclosures, U- and L-shaped enclosures, C-shapes, platforms, trails, stone uprights, overhangs, caves, alignments, cemeteries, and miscellaneous (modern) sites.



Functional types included temporary and permanent habitation, ceremonial, agriculture, burial, marker, boundary, rock art, livestock containment, and transportation.

Archaeological studies at Wai'anapanapa State Park produced examples of unusual cultural adaptive strategies in the general area (Pearson, 1970, Haun et al., 2004). In terms of prehistoric settlement patterns, the Hana area exemplifies aspects of human ecology not as readily accessible anywhere else in Hawaii. Exploitation of the wet, exposed windward shores of the islands resulted in variations in settlement patterns which included scattered homesteads instead of the more typical nucleated villages found elsewhere (Pearson, 1970, pp. 25-26). Because of the dense undergrowth typical of the Hana areas, discovery of relevant features has been difficult in some areas (Ibid.). Also, agricultural and ranching activities, and more recently tourism construction, have undoubtedly destroyed many sites (Ibid., pp. 27-29).

### **Kawaipapa *Ahupua`a* area studies**

The earliest study in this portion of Hana consisted of Walker's (1930) survey of Maui. This study noted 3 named *heiau* (Sites 50-50-13-106, 109 and 110), and two unnamed structures (Sites 107 and 108). Of the named *heiau*, Kawaipapa (Site 106) was destroyed during road construction many years ago. Site 109, Kauleiula Heiau, consists of a stone platform that is located on a rise at Naualele Point. Kaulelepo Heiau (Site 110) is a double *heiau* at Ka'inalimu on a rocky point just north of Hana Bay. Much of this structure has been impacted by post-World War II construction activities. Site 107 - Waikoloa Platform - consists of a rock platform that once was thought to be a *heiau*. Site 108 is a small, unnamed *heiau* that was located near the shoreline on Keanini Point. This site was not located during the Statewide Inventory in the mid-1970s.

A few more recent archaeological investigations have been carried out in and near Kawaipapa *ahupua`a*. One of the earlier projects consisted of a 1984 reconnaissance study of a c. 14-acre parcel of land to the southwest (Landrum, 1984). There were no significant precontact cultural resources located during this reconnaissance level investigation. Kennedy (1990) carried out a second reconnaissance survey, which documented Kauleiula Heiau (Site 109). Xamanek Researches conducted an archaeological assessment of a portion of the Hana Landfill that was slated to expand onto State land (Fredericksen, 2003). No significant cultural materials were located during this latter study.

Four archaeological inventory surveys have been conducted in the general vicinity of the *Makai* Landfill project area in Kawaipapa *ahupua`a*. Two earlier studies (1993) were undertaken on two parcels that lie within about 1-1.5 km southwest (*mauka*) of the study area. Two more recent surveys were carried out on two nearby parcels in 2006.

The Hana Medical Center inventory survey was conducted by PHRI in 1993 (Henry and Graves, 1993). This archaeological study located four sites—two complexes (Site 3150 and Site 3153), and two boundary walls (Site 3151 and Site 3152). Sites 3150 and 3153 were interpreted as temporary habitation areas that appeared to have been

utilized periodically, possibly during the plantation era. All sites were interpreted as post-contact features. Subsequent data recovery work was carried out on Site 3150 in 1996 (Wulzen et al., 1996). Material culture remains recovered during testing were associated with the latter 1800s.

Xamanek Researches conducted an inventory survey for the County of Maui Hana Fire Station complex in 1993. This parcel of land lies to the southwest of the Sinenci property. There were no significant material culture remains encountered during testing on this previously disturbed portion of land (Fredericksen et al., 1993).

A parcel (TMK (2) 1-4-06:021) in Kawaipapa *ahupua`a* was surveyed in the summer of 2006 (Chun and Dillon, 2006). A total of three sites with five features were identified during this earlier survey. Site 6068 consists of a complex that includes a platform that is interpreted as a possible burial (Feature B). Site 6069, a post-contact era boundary wall, was determined to have been impacted by previous clearing activities on the parcel. Finally, Site 6070 consists of two sugar plantation era train cars, which are in generally poor condition.

Xamanek Researches LLC carried out an archaeological inventory survey of a nearby 0.43-acre portion of land (Madeus and Fredericksen, 2006). One newly identified historic property, Site 50-50-13-5946, was documented during this 2006 survey. Site 5946 consists of a total of four features (A-D), two of which are terraces, one is a depression, and the other is a low platform. The State Historic Preservation Division (SHPD) approved project mitigation measures included in-place preservation for Features A-C, and a monitoring program for future earthmoving activities on this parcel (SHPD DOC NO: 0612MK31), which is less than 1 km. southwest of the current project area.

The Kawaipapa Complex (SIHP<sup>6</sup> 50-50-13-1485) is located near the above project area (and Site 5496) discussed above. This complex has never been fully studied, but was documented during the State Inventory in 1973. This complex consists of a (now restored) fishpond<sup>7</sup> and two caves. This area has been extensively developed and contains several vacation rental units. As previously noted above, this interesting complex has never been fully investigated.

Other sites that are contained within Kawaipapa *ahupua`a* include Noa Fishponds (Site 1487), Kaianalimu habitation site (Site 1491), and Sites 1834-37. The Noa Fishponds (Site 1487) include one coastal and two inland ponds, which may have been used in precontact times. Site 1834 consists of a *mauka-makai* trending wall. Site 1835 is composed of an overhang shelter that was used for temporary habitation. Site 1836 is a remnant of a possible irrigated agricultural system. Post-contact activities have altered this site. Site 1837 is a probable post-contact retaining wall. In addition, a post-contact cemetery lies about ½ km to the south of the study area on the southern side of Kawaipapa Gulch.

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<sup>6</sup> SIHP = State Inventory of Historic Places.

<sup>7</sup> In the State Inventory data sheets, the then dry pond was also interpreted as a possible wet taro field.

## **Settlement Patterns and Land Use**

Previous archaeological work in the general vicinity of the *Makai* Landfill project area suggests that the coastal portion of Maui was likely utilized in precontact times for permanent and temporary habitation, agriculture, coastal marine exploitation and ceremonial purposes (Fredericksen et al., 1993; Haun et al., 2004; Henry and Graves, 1993; Kirch, 1985; Pearson, 1970). It does not appear that the more rugged inland portion of the Hana coast in this locale, which is classified as barren lava rock on the State Tax Key Map, was heavily utilized for commercial sugarcane or ranching activities, because it contains little soil and is quite rocky.

## **Expected Findings**

Given the location of the current *Makai* Hana Landfill study area there was a possibility that remnants of habitation sites, *mauka/makai* trails, and/or ranch-era sites could be located near the APE for this project. However, given the ongoing operations of the Hana landfill facility, it was possible that associated earthmoving activities could have altered and/or destroyed features that might be located in the current project APE within Parcel 12.

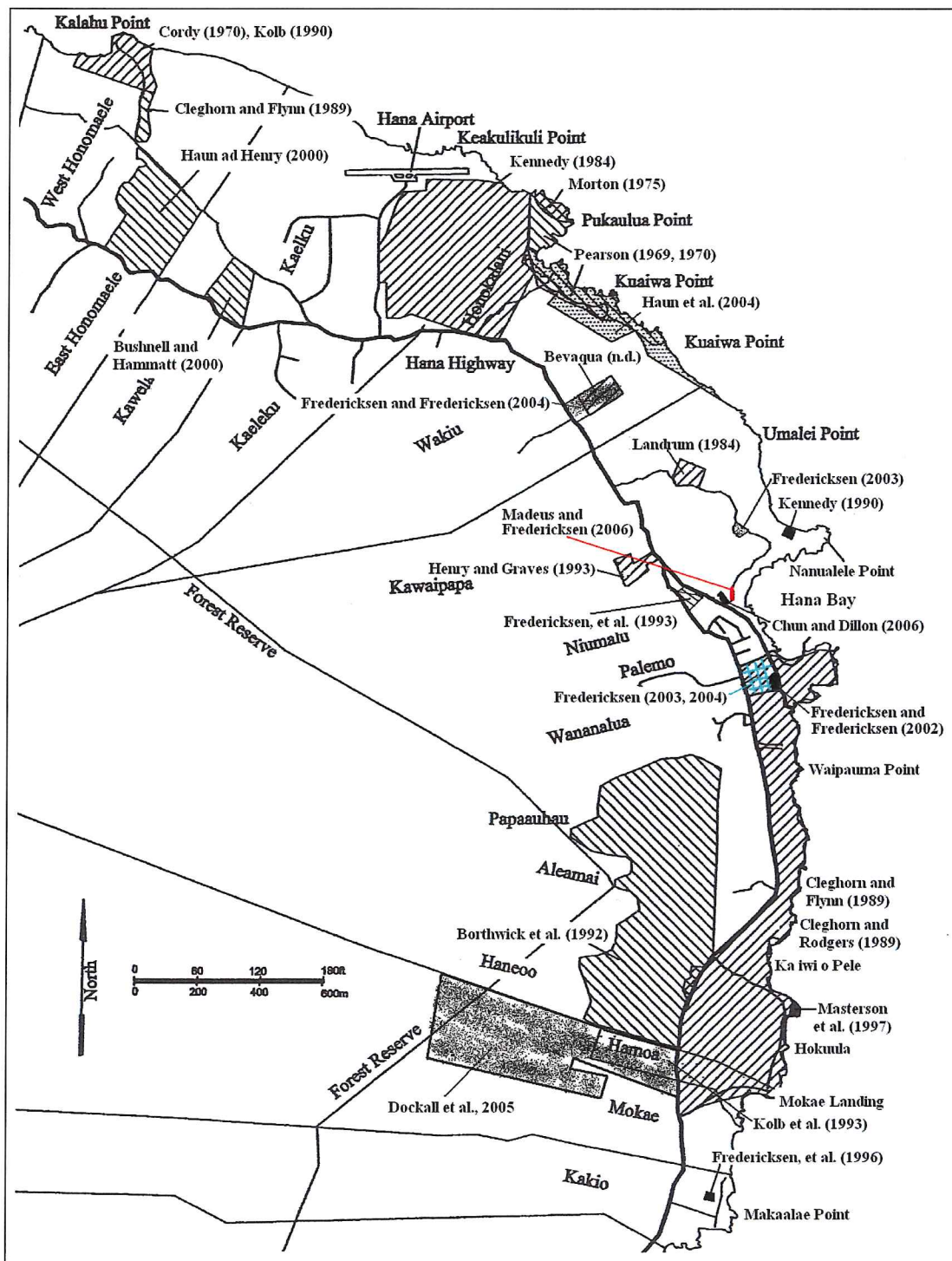


Figure 6: Previous archaeological studies in the Hana area (adapted from Haun et al., 2004).

## FIELD METHODS

Per the request of Ms. Elaine Baker, County of Maui, Department of Environmental Management, Xamanek Researches LLC carried out an archaeological assessment survey of a 6.4-acre portion of Parcel 12. The project area is referred to as the *Makai* Landfill, and is located within a portion of the overall Hana Landfill facility. Prior to initiating fieldwork, Erik Fredericksen met with the SHPD Maui staff archaeologist to discuss the project and develop a testing methodology. Given that the c. 6-4 acre APE is covered by refuse and debris, it was concluded that subsurface investigation was only feasible along the margins of the old *Makai* Landfill. Waikoloa Road is to the west, and the rest of the irregularly shaped Area of Potential Effect (APE) is surrounded by portions of Parcel 12 (refer to Figure 4).

The project area lies in Kawaipapa *ahupua'a*, Hana District, Island of Maui (see Figure 1 through 4). The c. 6.4-acre Area of Potential Effect was covered by our archaeological fieldwork. Marco Molina B.A. carried out the archaeological survey fieldwork. Ms. Baker met Mr. Molina at the project site on 29 May 2015, and showed him the project limits and introduced him to the heavy equipment operator, Mr. Frank Cabral. Mr. Molina then carried out a pedestrian inspection of the surface area along the margins of the abandoned landfill (see Figure 4). No surface evidence of any significant material culture remains was encountered at this time. Rather, it appeared that the area had been previously grubbed in the past year or so.<sup>8</sup> Subsurface investigation was carried out on 3 June 2015. Erik M. Fredericksen was the principal investigator and project director for this assessment survey.

The archaeological investigation consisted of a surface survey of the perimeter of the *Makai* Landfill, and mechanical excavation of 14 Backhoe Tests (BTs). The pedestrian inspection of the project area was accomplished through systematic sweeps along the perimeter of the *Makai* Landfill. Observations were recorded and documented in written and digital formats.

The mechanical excavations of the backhoe trenches were closely monitored and there were no significant material culture remains or cultural deposits identified in any of the excavated trenches. Following each backhoe trench excavation, representative wall profiles were prepared. The wall profiles were mapped to scale and described using Munsell soil colors and U.S Soil Conservation Service terminology. The completed excavations were then photographed and backfilled. Project notes, maps, and photographs are stored on site at our facility in Pukalani, Maui.

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<sup>8</sup> This previous disturbance was subsequently determined to have been associated with previous soil sampling work that had occurred in 2014 in support of forthcoming environment remediation work.

## RESULTS OF FIELDWORK

There were no significant material culture remains located during the surface inspection of the perimeter of the *Makai* Landfill APE. In addition, no significant cultural materials were identified during archaeological assessment level subsurface sampling within the perimeter of the project APE. Subsurface testing suggests that this portion of the Hana Landfill is very rocky and covered by thin soil. Material interpreted as weathered *a'a* was encountered in all 14 backhoe test trench locales. In addition, some trenches also contained red (7.5YR4/4) cinder that was used in some portions of the landfill facility as a “capping” material.

As previously noted, the surface walkover of the APE was conducted on 29 May 2015. During visual inspection of the project area, it became apparent that the area in the vicinity of the *Makai* Landfill had been previously disturbed by earthmoving activities. Refer to Photos 1-8 for general project conditions.



## General project photographs 1-8



**Photo 1: General view to the NE of the Makai Landfill from near the County operations office. Project area visible in background.**



**Photo 2: General view to the ENE of the Makai Landfill from the road.**





**Photo 3: General view to the E of the *Makai* Landfill, Hana.**



**Photo 4: General view to the SE of the *Makai* Landfill (at right), Hana.**





**Photo 5: General view to the north of the *Makai* Landfill (at center and right), Hana.**



**Photo 6: General view to the east of the *Makai* Landfill, Hana.**



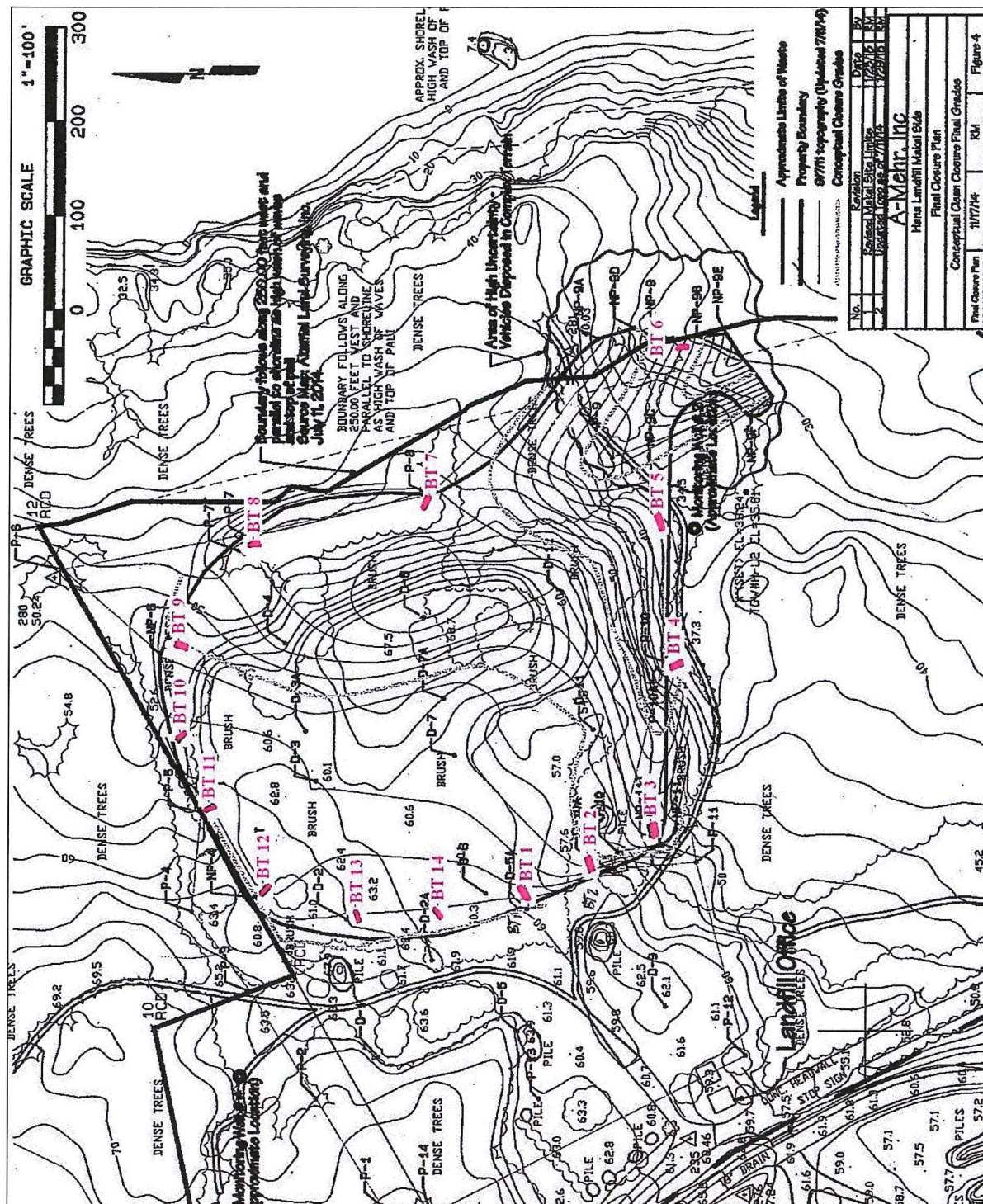


**Photo 7: General view to the SW of access road for the *Makai* Landfill, Hana.**



**Photo 8: General view to the ENE of bulldozed fisherman access pathway to ocean.**





## Project stratigraphy

There were two shallow fill layers and one stratigraphic layer present in tested portions of the APE:

Layer Ia (0-10 cmbs)	7.5YR4/4, dark brown, silty clay loam, medium and single grain; loose, slightly sticky and slightly plastic consistency; 20% sub-angular cobbles and pebbles as inclusions; contains no cultural material; abundant roots present
Layer Ib (0-30 cmbs)	7.5R4/6, red, cinder fill; used to cover portions of the landfill; contains no cultural material
Layer II (150-160 cmbs)	2.5YR2.5/1, reddish black, a'a lava; generally loose and unconsolidated; denser flow rock in some test locales at bottom of excavation; contains no cultural material

As noted above, there were no indigenous Hawaiian cultural materials noted during the excavation of the 14 trenches. The stratigraphy was similar across the tested portion of the project area; with one common stratum (*a'a* clinker [Layer 3]) in all backhoe trenches (see discussion below). Backhoe Trenches 1-10 contained thin soil fill (Layer 1), which overlaid *a'a* clinker (Layer 3). Backhoe Trenches 11-14 contained red cinder fill (Layer 2), which overlaid Layer 3.

## Backhoe Trench Test Results

As previously mentioned above, there were 14 backhoe trenches excavated in accessible portions of the project APE (Figure 7). These trenches were utilized to determine the soil stratigraphy of the project area. These tests were c. 2.5-3.5 m in length by 0.8 m in width by up to 1.5 m in depth, depending on the rockiness of subsurface conditions. Refer to Table 2 for a summary of each of the 14 excavated trenches.



## **Project Backhoe Trench Photographs 9-22**



**Photo 9: Overview of BT 1, view to the NNE. Note: area previously grubbed.**





**Photo 10: Overview of BT 2, view to the ENE. Note: area previously grubbed.**





**Photo 11: Overview of BT 3, view to the ENE. Note: area grubbed in the past.**





**Photo 12: Overview of BT 4, view to the north. Note: area grubbed in the past.**





**Photo 13: Overview of BT 5, view to the west. Note: area recently grubbed.**





**Photo 14: View of BT 6, view to the WNW. Note: area grubbed in the past.**





**Photo 15: View of BT 7, view to the WNW. Note: area recently grubbed.**





**Photo 16: View of BT 8, view to the north. Note: area recently grubbed.**





**Photo 17: View of BT 9, view to the SSW. Note: area recently grubbed.**





**Photo 18: View of BT 10, view to the SSE. Note: area grubbed in the past.**





**Photo 19: View of BT 11, view to the south. Note: area previously grubbed.**





**Photo 20: View of BT 12, view to the SE. Note: area previously grubbed.**





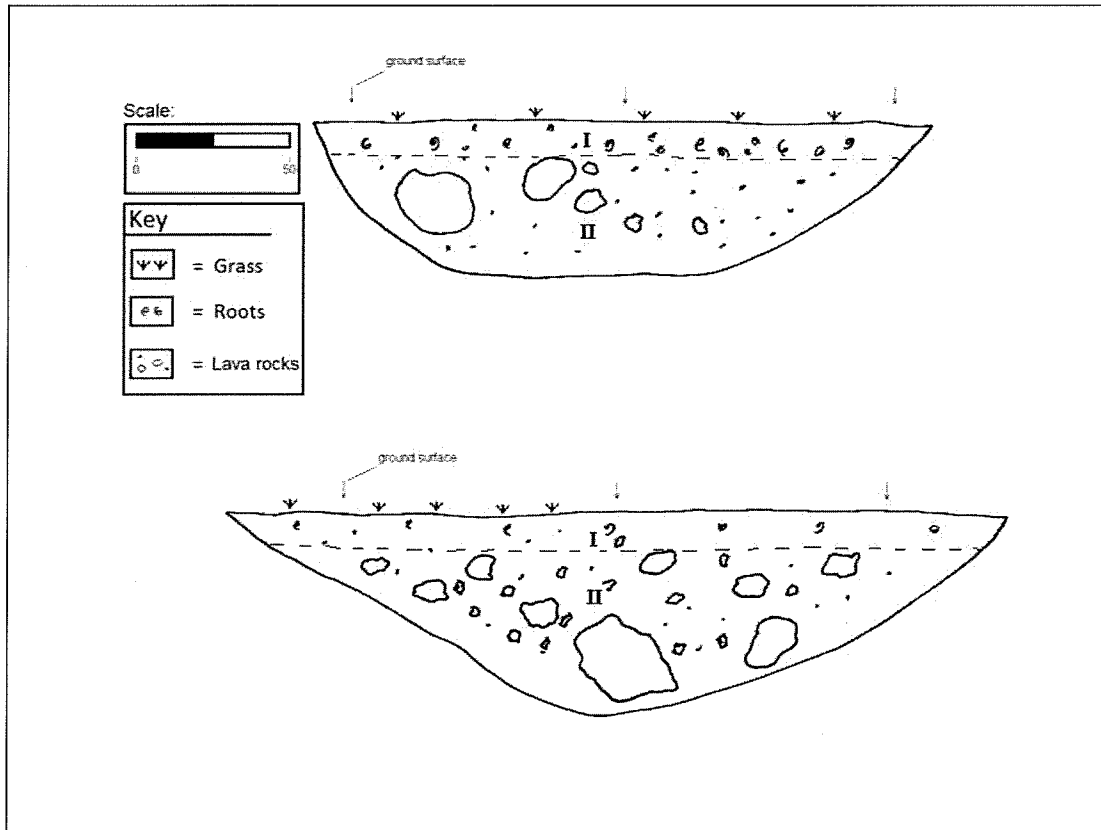
**Photo 21: View of BT 13, view to the ENE. Note: area recently grubbed.**





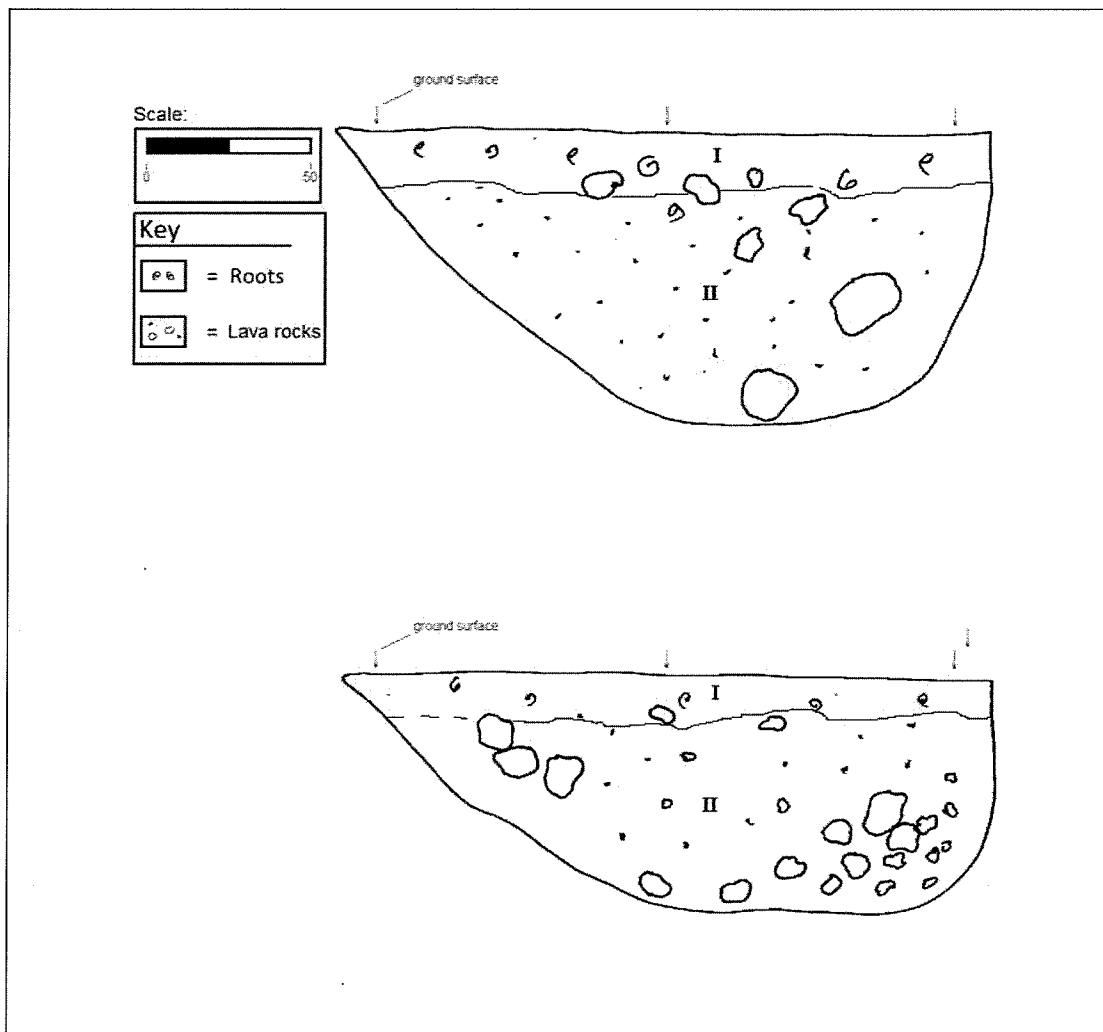
**Photo 22: View of BT 14, view to the WSW. Note: area recently grubbed.**

## Project Profiles Backhoe Trenches 1-14<sup>9</sup> (Figures 8-22)

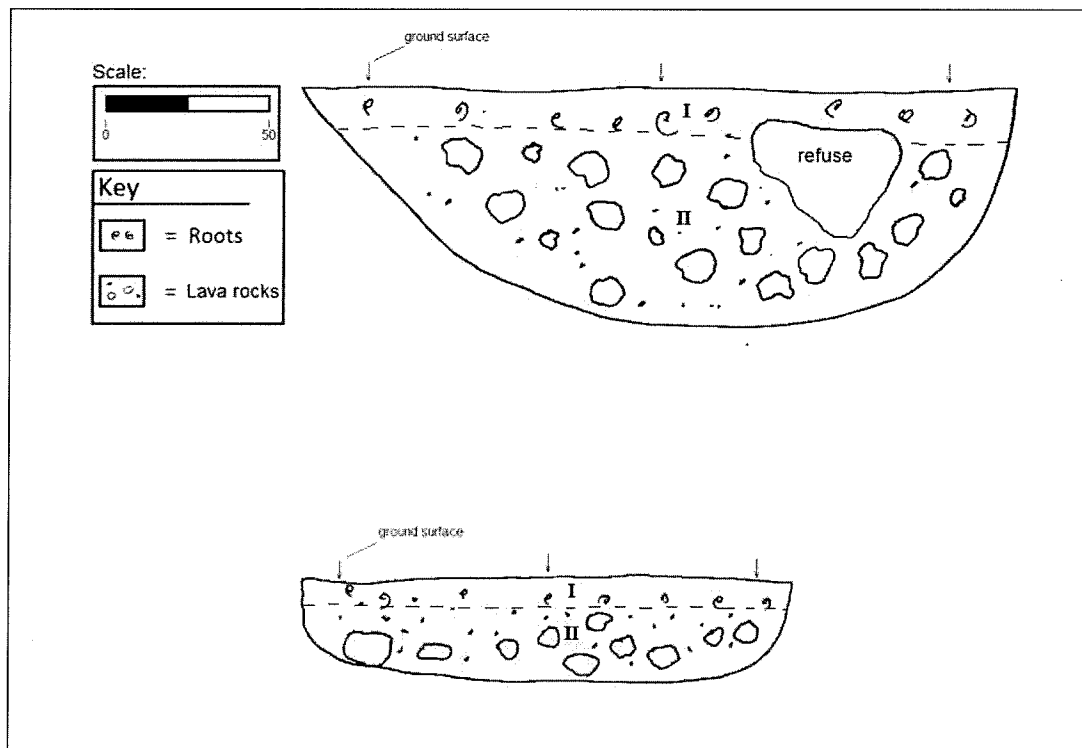


**Figure 8: Backhoe Trench 1 (SSE profile, upper) and BT 2 (NNW profile, lower). Note: dark brown (7.5YR4/4) silty clay loam fill (I) in both trenches.**

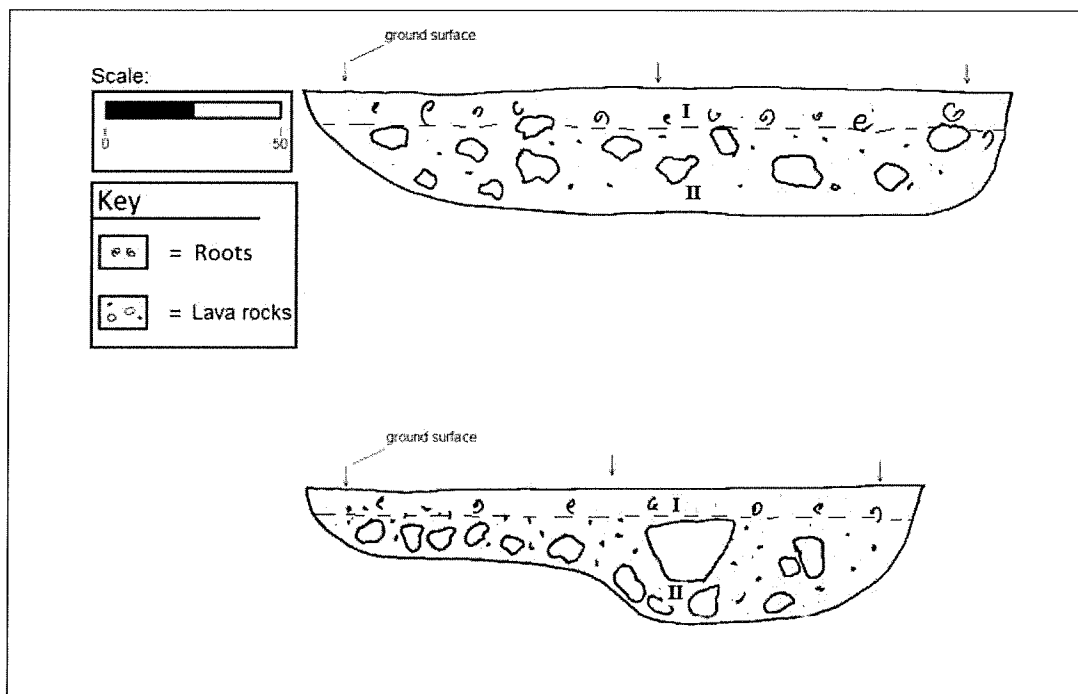
<sup>9</sup> Note: graphic scales depicted in all figures are in **centimeters**.



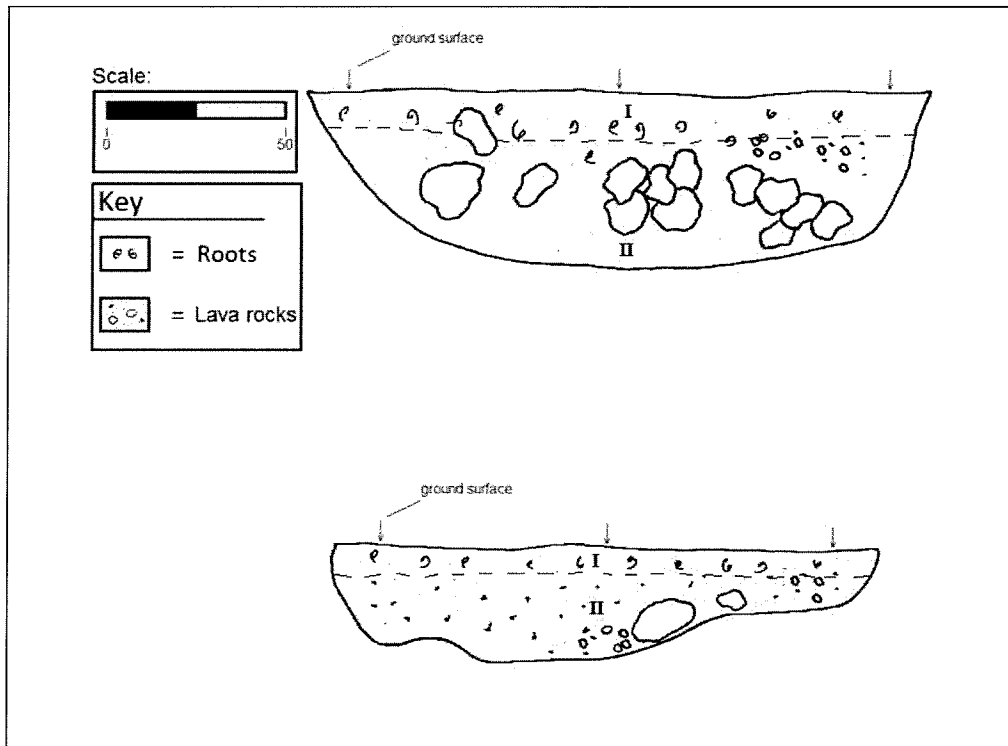
**Figure 9: Backhoe Trench 3 (SSE profile, upper) and BT 4 (east profile, lower). Note: red (7.5R4/6) cinder fill (I) present in both trenches.**



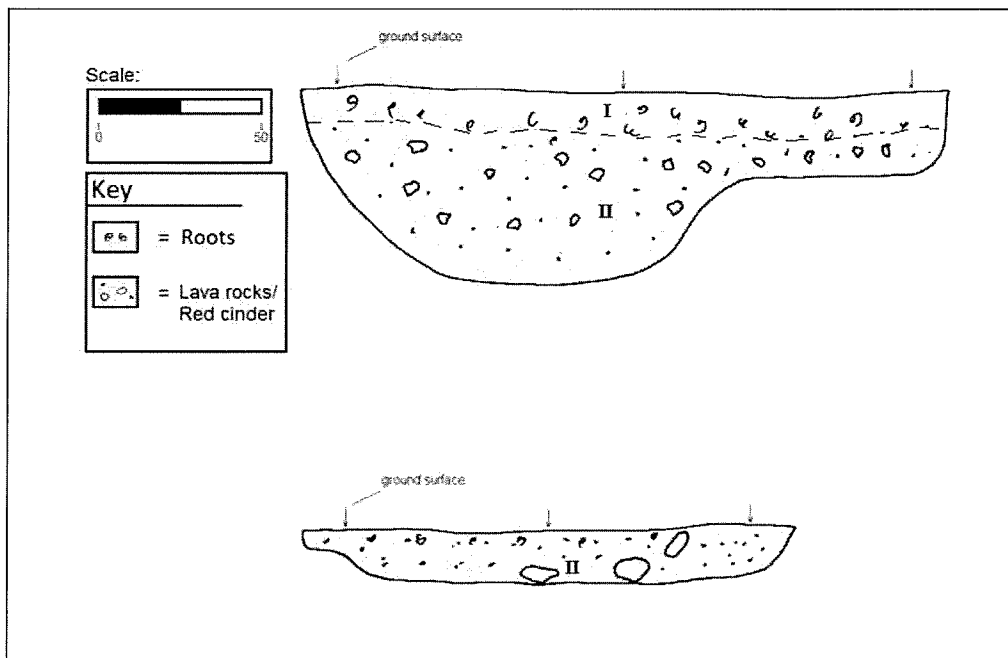
**Figure 10: Backhoe Trench 5 (south profile, upper) and BT 6 (NNE profile, lower).**  
**Note: dark brown (7.5 YR4/4) fill (I) present in both trenches.**



**Figure 11: Backhoe Trench 7 (NNE profile, upper) and BT 8 (E profile, lower).**  
**Note: dark brown (7.5 YR4/4) fill (I) present in both trenches.**

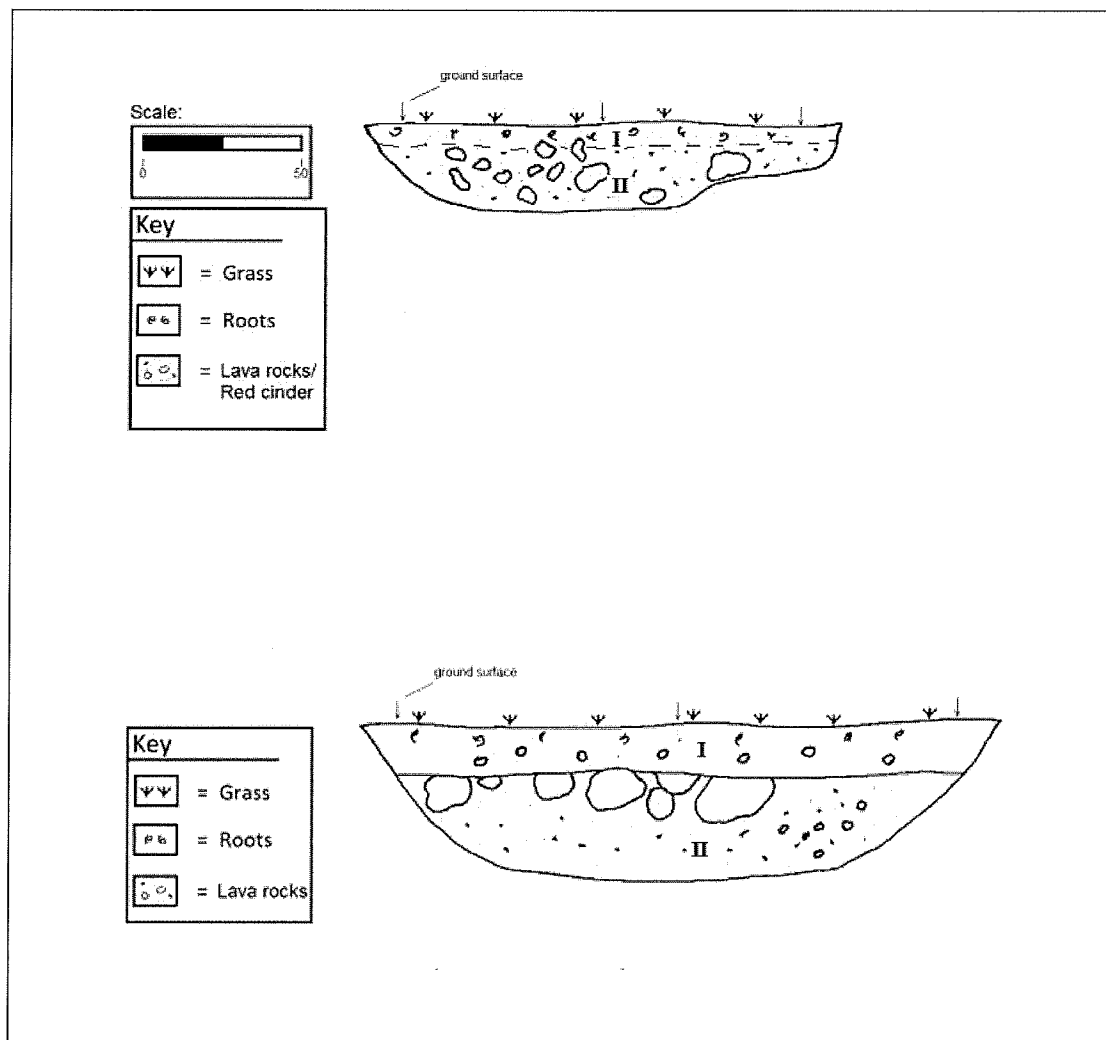


**Figure 12: Backhoe Trench 9 (WNW profile, upper) and BT 10 (WSW profile, lower). Note: red (7.5R4/6) cinder fill (I) present in BTs 9 and 10.**



**Figure 13: Backhoe Trench 11 (east profile, upper) and BT 12 (SW profile, lower). Note: red (7.5R4/6) cinder fill (I) present in BT 11; no fill layer present in BT 12, but visible on surface.**





**Figure 14: Backhoe Trench 13 (NNW profile, upper) and BT 14 (SSE profile, lower). Note: red (7.5R4/6) cinder fill (I) present in BTs 13 and 14.**

**Table 2: Summary of test results for Backhoe Trenches 1 through 14**

BT #	Length	Width	Wall profile	Layer	Depth	Layer descriptions	Cultural material
1	3.5 m	0.8 m	SSE wall	I	0-10 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	10-75 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
2	3.0 m	0.8 m	NNW wall	I	0-10 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	10-90 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
3	3.0 m	0.90 m	SSE wall	I	0-25 cmbs	7.5R 4/6, red, loose, cinder fill; used to cap portions of the landfill	None
				II	25-125 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
4	3.5 m	0.90 m	East wall	I	0-20 cmbs	7.5R 4/6, red, loose, cinder fill; used to cap portions of the landfill	None
				II	20-110 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
5	3.5 m	0.80 m	South wall	I	0-10 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	10-110 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
6	3.0 m	0.80 m	NNE wall	I	0-5 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	5-35 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
7	3.0 m	0.80 m	NNE wall	I	0-10 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	10-40 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
8	3.5 m	0.80 m	NNE wall	I	0-10 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	10-50 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
9	3.5 m	0.80 m	NNE wall	I	0-18 cmbs	7.5R 4/6, red, loose, cinder fill; used to cap portions of the landfill	None
				II	18-70 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None

cm=centimeter, m = meter, and BT=backhoe test

**Table 2 cont.**

10	3.5 m	0.80 m	NNE wall	I	0-5 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	5-50 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
11	3.5 m	0.80 m	East wall	I	0-20 cmbs	7.5R 4/6, red, loose, cinder fill; used to cap portions of the landfill	None
				II	20-120 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt pebbles	None
12	3.0 m	0.80 m	SW wall	I	0-5 cmbs	7.5R 4/6, red, loose, cinder fill on surface, area previously grubbed	None
				II	5-25 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None
13	2.5 m	0.80 m	NNW wall	I	0-10 cmbs	7.5R 4/6, red, loose, cinder fill; used to cap portions of the landfill	None
				II	5-30 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular cobbles and pebbles	None
14	3.5 m	0.80 m	SSE wall	I	0-25 cmbs	7.5YR 4/4, brown, loose, silty loam fill, 20% subangular basalt cobbles, roots	None
				II	25-80 cmbs	2.5YR 2.5/1, black, loose, <i>a'a</i> clinker, 80% subangular basalt cobbles	None

## SUMMARY AND CONCLUSIONS

The archaeological assessment survey utilized a pedestrian surface survey of the perimeter of the APE, as well as mechanical subsurface testing in this area. A total of 14 backhoe test excavations were utilized to assess subsurface conditions along the margins of the old *Makai* Landfill. Shallow fill deposits were found to overlay *a'a* lava clinker in sampled portions of the project area. There were no significant material culture remains located during our surface inspection and subsurface testing of the project area. The tested portions of the APE and the general area in the vicinity of the margin of the *Makai* Landfill appears to have been previously impacted by bulldozing activities associated with landfill operations and the 2014 soil investigations in support of the forthcoming environmental remediation project.

## RECOMMENDATIONS

The archaeological assessment survey discussed in this report was designed and completed to meet DLNR-SHPD requirements for the subject environmental remediation project. As previously noted, the pedestrian survey and subsurface test results did not yield any evidence of remnant cultural activities in the APE. However, given the location of the proposed environmental remediation project, as well as the fact that it was not possible to test within much of the physical footprint of the *Makai* Landfill, archaeological monitoring is recommended during initial earthmoving activities around the margins of the old landfill, and periodically when the operations near the original land surface elevation.

Given the extended time necessary for the proposed environmental remediation project at the *Makai* Landfill, it is further recommended that the project specific monitoring plan be developed with input from the State Historic Preservation Division lead archaeologist for the Maui office.

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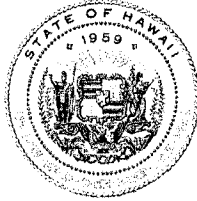
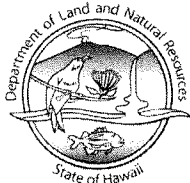


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## **APPENDIX C-2.**

**Letter Dated December 24, 2015  
From State Historic Preservation  
Division**

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
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SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

JEFFREY T. PEARSON  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

December 24, 2015

Kyle Ginoza, Director  
County of Maui  
Department of Environmental Management  
[environmental.mgmt@co.maui.hi.us](mailto:environmental.mgmt@co.maui.hi.us)

Log No. 2015.04158  
Doc No. 1512MD50  
Archaeology

Aloha Mr. Ginoza,

**SUBJECT: Chapter 6E-8 Historic Preservation Review –  
Draft Archaeological Assessment Survey Report for 6.4 Acres with No New Sites  
Kawaipapa Ahupua'a, Hāna District, Island of Maui  
TMK (2) 1-3-006:012 (por.)**

Thank you for the opportunity to review the draft submittal titled *An Archaeological Assessment of a 6.4-Acre Portion of Land in Kawaipapa Ahupua'a, Hana District, Island of Maui (TMK (2) 1-3-06:012 [Portion])* by Frederickson (Revised November 2015). We received the revised report on November 30, 2015. According to the submittal, project plans call for the eventual removal of the old Makai Landfill, with waste matter relocation onto a portion of the adjacent active Mauka Landfill, which is across old Waikoloa Road. The Project Area consists of 6.4 acre portion of the 34.380 acre parcel. We previously reviewed an earlier draft of this report and requested revisions (*Log No. 2015.02635, Doc No. 1510JP02*). This survey was recommended by SHPD during consultation with the DLNR Land Division in March of 2015 (*Log No. 2015.00536, Doc No. 1503JP01*).

Fieldwork was conducted by one archaeologist on May 29 and June 3, 2015. Fourteen (14) trenches were mechanically excavated; no historic properties were encountered. Due to negative findings from the inventory survey this report has been submitted as an Archaeological Assessment. Archaeological monitoring is recommended during initial earthmoving activities around the margins of the old landfill and we concur with that recommendation. An archaeological monitoring plan will be submitted to SHPD for review and approval pursuant to Hawai'i Administrative Rule (HAR) §13-279. The draft archaeological assessment meets the requirements specified in HAR §13-275 and is accepted. Please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Please contact me at (808) 243-4641 or email [Morgan.E.Davis@hawaii.gov](mailto:Morgan.E.Davis@hawaii.gov) if you have any questions or concerns about this letter.

Mahalo,

A handwritten signature in black ink, appearing to read "Morgan E. Davis".

Morgan E. Davis  
Lead Archaeologist, Maui Section

cc County of Maui  
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[Planning@co.maui.hi.us](mailto:Planning@co.maui.hi.us)

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# **APPENDIX D.**

## **Cultural Interview**

**PROPOSED MAKAI HANA LANDFILL  
CLEAN-UP AND CLOSURE PROJECT**

***Cultural Impact Assessment***

*Interview with:* Harolen Kaiwi

*Interview date:* July 15, 2015

*Interviewed by:* Colleen Suyama, Senior Associate  
Munekiyo Hiraga

Ms. Harolen Kaiwi is of Hawaiian descent and was born in 1961 in Hana and is a life-long resident of Hana. She is the daughter of Harold and Helen Nakaoka. Her family connection to the Hana region is from Keanae and lower Nahiku. She has two (2) brothers who live in Kahului and three (3) sisters who are also Hana residents. She has a daughter and three (3) sons who are residents of Hana. Ms. Kaiwi worked for the Hotel Hana Maui for 30 years before moving to the Hana Ranch Grocery Store five (5) years ago to become one of the store's managers.

Ms. Kaiwi is the President of the Hana Cultural Center and Museum, Vice President of the non-profit organization Ohana Makamae, and a member of the American Red Cross. Her involvement with the Hana Cultural Center and Museum is due to her desire to learn and preserve the Hawaiian culture, as well as, her desire to educate her children and others in the culture. Ohana Makamae is Hana's family resource center that provides culturally based substance abuse treatment and family support.

Ms. Kaiwi recalls when she was growing up the old Hana Landfill was referred to by some members of the community as "Woolworths". Residents would carefully set aside usable items at the landfill for other Hana residents to pick-up and reuse. The landfill was like shopping at Woolworths. This practice ended before 1979 when she graduated from high school.

Waikoloa Road, besides being the access to the Hana Landfill, is also used for access to the shoreline. Residents continue to use the shoreline area for fishing and gathering of food, such as opihi. She is aware that the Piilani Trail is located along the shoreline and that there are numerous ways to get to the shoreline. Ms. Kaiwi noted that the operations at the Hana Landfill do not limit access to the shoreline.

Ms. Kaiwi also noted that nearby is an existing fishpond in the Keanini Point area that crosses the Kalalau property. Because access to the fishpond is through private property she does not use the fishpond.

Ms. Kaiwi felt the existing landfill is beautiful and the workers do a good job. She did not express any concerns regarding the proposed closure of the Makai Hana Landfill. She

also did not note any ongoing cultural practices or issues associated within the landfill area.

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