JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
Office of Conservation and Coastal Lands
P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H.E. KAAKUA
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DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF: OCCL: TF

COR: HA 24-20

Aug 28, 2023

To: Mary Alice Evans, Acting Director
Office of Planning and Sustainable Development
Environmental Review Program

From: Dawn N. S. Chang, Chairperson
Board of Land and Natural Resources

MC

Subject: Draft Environmental Assessment (DEA) for After-the-Fact Demolition of an Existing Shack and Reconstruction of a Single-Family Residence in the Conservation District Located at 84-5607 Ke Ala O Keawe Road, Honaunau Beach Lots Subdivision, South Kona, Island of Hawaii, Tax Map Key (TMK): (3) 8-4-013:016

The Department of Land and Natural Resources has reviewed the subject Draft EA. The Draft EA has been submitted for processing to fulfill the requirements of Hawaii Revised Statutes (HRS) Chapter 343 (a) (2) and it appears in anticipation of a future submission of an after-the-fact Conservation District Use Application (ATF CDUA) to fulfill Condition #9 in the Office of Conservation and Coastal Lands (OCCL) enforcement case ENF: HA 20-21. The subject document appears to have been prepared in accordance with HRS Chapter 343 and Hawaii Administrative Rules (HAR) Chapter 11-200.1.

It is anticipated that a Finding of No Significant Impact (FONSI) may be determined based upon the information provided. Please publish notice of availability for this project in the September 8, 2023, issue of The Environmental Notice.

If you have any questions, please contact Trevor Fitzpatrick at trevor.j.fitzpatrick@hawaii.gov or work cell at 808-798-6660.

From: webmaster@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Monday, August 28, 2023 10:55:30 AM

Action Name

Draft Environmental Assessment for After-the-Fact Demolition of an Existing Shack and Reconstruction of a Single-Family Residence in the Conservation District

Type of Document/Determination

Draft environmental assessment and anticipated finding of no significant impact (DEA-AFNSI)

HRS §343-5(a) Trigger(s)

- (2) Propose any use within any land classified as a conservation district

Judicial district

South Kona, Hawai‘i

Tax Map Key(s) (TMK(s))

(3) 8-4-013:016

Action type

Applicant

Other required permits and approvals

State of Hawaii: BLNR/DLNR Conservation District Use Permit, DOH Wastewater System Approval, Chapter 6E SHPD Approval of Archaeological Survey; County of Hawaii: Special Management Area Permit Plan Approval and Grubbing, Grading, and Building Permits

Discretionary consent required

Conservation District Use Permit (CDUP)

Approving agency

Department/Board of Land and Natural Resources

Agency contact name

Trevor Fitzpatrick

Agency contact email (for info about the action)

trevor.j.fitzpatrick@hawaii.gov

Email address or URL for receiving comments

trevor.j.fitzpatrick@hawaii.gov

Agency contact phone

(808) 798-6660

Agency address

1151 Punchbowl Street
Room 131

Honolulu, HI 96813
United States
Map It

Applicant

Sheri Hamilton

Applicant contact name

Sheri Hamilton

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msglham@gmail.com

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(808) 987-2161

Applicant address

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Kailua-Kona, HI 96745
United States
Map It

Was this submittal prepared by a consultant?

Yes

Consultant

Environmental Risk Analysis, LLC

Consultant contact name

Russell Okoji

Consultant contact email

russellokoji@environmentalriskhawaii.com

Consultant contact phone

(808) 798-6660

Consultant address

905 A Makahiki Way
Room 131
Honolulu, HI 96826
United States
Map It

Action summary

On February 14, 2020, the Board of Land and Natural Resources (Board) found the landowner in violation of Hawaii Revised Statutes (HRS) §183C and Hawaii Administrative Rules (HAR) §13-5 in regards to the unauthorized construction of a single-family residence without prior approval and use of the subject property and associated single-family residence as a transient vacation rental within the State Land Use Conservation District. Condition #9 states: That the landowner files a complete after-the-fact CDUA with DLNR and OCCL in accordance with HAR §13-5 and all requested attachments within ninety (180) days from the date of the Board's action. The OCCL notes that the Draft Environmental Assessment (DEA) is being submitted for processing to fulfill the requirements of Hawaii Revised Statutes (HRS) Chapter 343

(a) (2) and it appears in anticipation of a future submission of an after-the-fact Conservation District Use Application (ATF CDUA) to fulfill Condition #9 in ENF: HA 20-21.

Reasons supporting determination

In accordance with the provisions set forth in Chapter 343, HRS, this EA has preliminarily determined that the project will not have significant adverse impacts on the environment. As such, an Anticipated Finding of No Significant Impact (AFONSI) has been determined for the Proposed Action. Anticipated impacts will be temporary and will not adversely impact the environmental quality of the area.

A review of the "Significance Criteria" used as a basis for the above determination is presented below. An action is determined to have a significant impact on the environment if it meets any one of the thirteen (13) criteria.

(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;
Alternative II would not cause loss or destruction of any natural or cultural resources. The Site has been previously disturbed and constructed upon. Surrounding areas are also developed with residences or agricultural property.
(2) Curtails the range of beneficial uses of the environment;
Alternative II will not curtail the range of beneficial uses of the environment. In fact, the implementation of the Proposed Action would increase beneficial uses of the Site by providing housing in an otherwise underutilized area.
(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;
Alternative II will be in conformance with the Chapter 344, HRS, State Environmental Policy, to enhance the quality of life. The Proposed Action will provide updated housing and improved Site conditions for the protection of the surrounding environment. This is in compliance with the residential zoning status.
(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;
Alternative II would have beneficial effects to the economic and social welfare of the community and State. The construction phase of the proposed alternatives would create jobs, and the families who occupy the development will generate income for local businesses. There would be no change in Site activities as it will remain residential. Any potential impacts following implementation of the project would be similar to those prior to the proposed project.
(5) Substantially affects public health;
Alternative II will not have significant effects on public health. The Proposed Action would provide safe and sanitary housing within a suitable living environment, which would ensure a better standard of living.
(6) Involves substantial secondary impacts, such as population changes or effects on public facilities;
Alternative II will likely not result in substantial secondary impacts, such as population changes or effects on public facilities. The Proposed Action involves the construction of a two-story single-family residence. Population changes or effects on public facilities would be minimal. The change in population and demand for public facilities would be readily met by existing infrastructure.
(7) Involves a substantial degradation of environmental quality;
Alternative II is not likely to result in a substantial degradation of environmental quality. Assessment of impacts associated with the Proposed Action have been minimal.
(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;
Cumulative effects are not anticipated as a result of implementing Alternative II. The Proposed Action does not involve a commitment to larger actions. Much of the land near the Site is undeveloped or agricultural, and the construction of the residences will have minimal impact to the environment.
(9) Substantially affects a rare, threatened, or endangered species, or its habitat; Alternative II is not anticipated to have substantial effects on rare, threatened, or endangered species, or any critical habitat. USFWS identified three federally listed species in the vicinity of the project area. Mitigation measures will be employed as to avoid or minimize any impacts to rare, threatened, or endangered species during and post-construction. There is little potential for encountering such resources as there are no rare, threatened, or endangered species or critical habitats at the Site.
(10) Detrimentally affects air or water quality or ambient noise levels;
No significant impacts on the area's long-term air or ambient noise environments are anticipated to result from Alternative II. During the proposed project, these parameters will be monitored. Any exceedances in local, state, or federal rules or regulations will be mitigated to minimize their effects to the area. Water quality impacts are not anticipated and do not require mitigation measures.
(11) Affects or is likely to suffer damage by being in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters;
The Site is located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.
(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies; or,
Alternative II will not affect the visual aesthetics of the areas identified in the county or state plans and studies.

Coastal view planes will not be impacted by the Site.
(13) Requires substantial energy consumption.
Alternative II would not require substantial energy consumption. The addition of an additional residence would impact supply slightly. The change in population and demand for energy would be readily met by existing infrastructure. In addition, energy efficient appliances will be incorporated into the project design.

In summary, the proposed project will provide additional residence opportunities in Hōnaunau. Based on the foregoing analysis, the proposed action is not anticipated to result in any significant adverse impacts. Accordingly, the proposed action is anticipated to be an Anticipated Finding of No Significant Impact (AFONSI).

Attached documents (signed agency letter & EA/EIS)

- 84-5607-Ke-Ala-O-Keawe-Rd.-EA-2023-Draft-Environmental-Assessment.pdf
- COR-HA-24-20_Hamilton_ATF-SFR-ENF-HA-20-21_DEA-Transmittal-Ltr-to-ERP-part-1-signed.pdf

Action location map

- TMK384013016.zip
- TMK3840130161.zip

Authorized individual

Trevor Fitzpatrick

Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this submission.

DRAFT
ENVIRONMENTAL ASSESSMENT

84-5607 Ke Ala O Keawe Road
Hōnaunau, South Kona District, Island of Hawai'i
Tax Map Key (3)-8-4-013-016

Applicant:
Sheri Parish-Hamilton

Approving Agency:
State of Hawaii
Board of Land and Natural Resources

July 2023

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DRAFT
ENVIRONMENTAL ASSESSMENT

84-5607 Ke Ala O Keawe Road
Hōnaunau, South Kona District, Island of Hawai'i
Tax Map Key (3)-8-4-013-016

Prepared by:
Environmental Risk Analysis LLC
905A Makahiki Way
Honolulu, Hawaii 96826

Prepared for:
Sheri Parish-Hamilton
P.O. Box 5004
Kailua-Kona, Hawaii 96726

Applicant:
Sheri Parish-Hamilton

Approving Agency:
State of Hawaii
Board of Land and Natural Resources
PO Box 621
Honolulu, Hawaii 96809

July 2023

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Table of Contents

List of Figures

List of Tables

Acronyms and Abbreviations

AMI	Area Median Income
CDUA	Conservation District Use Application
Census	U.S. Census Bureau
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
dBA	decibels
EA	Environmental Assessment
EDR	Environmental Database Resource
EPA	Environmental Protection Agency
FEMA	Federal Emergency Response Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FUDS	Formerly Used Defense Site
HAR	Hawaii Administrative Rules
HDOH	Hawaii State Department of Health
HRS	Hawaii Revised Statutes
HUD	Department of Housing and Urban Development
LUCs	Land Use Controls
LUO	Land Use Ordinance
MEC	munitions of environmental concern
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
PM2.5	particulate matter at 2.5 microns or less
SEL	sound exposure levels
SHPD	Hawaii State Historic Preservation
SO2	sulfur dioxide
TMK	tax map key
UIC	Underground Injection Control
USDA	United States Department of Agriculture
USGS	United States Geological Survey

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Appendices

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Executive Summary

This Environmental Assessment (EA) was conducted to assess potential environmental impacts associated with the After-the-Fact (AFT) demolition of an existing "shack" and reconstruction of a one-story single-family residence on real property known as Tax Map Key (TMK) (3)-8-4-013-016 in Hōnaunau, on the island of Hawaii. The EA was prepared to identify, document, and address potential environmental impacts associated with the Proposed Action. This EA is in support of a Conservation District Use Application (CDUA) required by the State of Hawaii, Department of Land and Natural Resources, Office of Conservation and Coastal Lands, per Hawaii Administrative Rules (HAR) 13-5. A Special Management Area (SMA) Minor Permit was granted by the County of Hawaii Planning Department in 2021 for the AFT work that was performed.

The EA examines two alternatives, the Proposed Action, and the No Action Alternative.

- Alternative I – No Action Alternative
- Alternative II –The Proposed Action – issuance of an ATF Conservation District Use Permit (CDUP) for after-the-fact demolition of an existing "shack" and reconstruction of a one-story single-family residence.

The following potentially impacted environments were evaluated in this EA:

- Topography and Geology
- Soils
- Natural Hazard
- Flora and Fauna
- Water Resources
- Climate and Air Quality
- Noise
- Solid Wastes
- Land Use Considerations and Zoning
- Archaeological and Cultural Considerations
- Circulation and Traffic
- Social Factors and Community Identity
- Economic Considerations
- Recreational and Public Facilities
- Visual and Aesthetic Resources
- Infrastructure Systems and Utilities

<u>Findings</u>

- A Finding of No Significant Impact (FONSI) is anticipated based on the environmental and societal factors considered under the Proposed Action and the No-Action Alternative.

- While potential impacts to Soil, Air Quality, Noise and Circulation and Traffic would have been possible during construction, implementing best management practices would reduce these impacts to less than significant levels.

- Beneficial impacts to Land Use Considerations and Zoning are anticipated as the land would be used for much needed single-family residences which are built with shoreline protection and flood inundation in mind.

- Under Alternative I, the No Action Alternative, Land Use Considerations and Zoning would incur a negative impact as full use of the land will not be realized. Additional negative impacts are anticipated to Social Factors and Community Identity under Alternative I.

SECTION 1 INTRODUCTION AND SUMMARY

1.1 Scope and Authority

This EA has been prepared pursuant to Chapter 343, Hawaii Revised Statutes (HRS) and associated Title 11, Chapter 200 Hawaii Administrative Rules (HAR). The intent of the document is to ensure that systematic consideration is given to the environmental consequences of the Proposed Action. The Proposed Action is the issuance of an After-The-Fact (ATF) Conservation District Use Permit (CDUP) and the after-the-fact demolition of an existing "shack" and reconstruction of a one-story single-family residence in Hōnaunau, Hawaii (Figure 1) (the "Proposed Action"). The work on the SFR took place between approximately 2007 and 2010. A Chapter 343, HRS EA is required in response to a request by the Office of Conservation and Coastal Lands (OCCL) in their review of an After-the-Fact Conservation District Use Permit Application (ATF-CDUA) submitted by the landowner as part of the resolution for Enforcement Case HA 20-21 relating to certain work made to the single-family residence on the subject parcel. Information regarding the existing conditions of the subject parcel before the demolition of the existing single-family residence (sometimes referred to as a "shack") and reconstruction of a one-story single-family residence was provided by the land owner. Environmental Risk Analysis, LLC was not present to document the site conditions prior to demolition and construction.

1.2 Project Information

Project Name:	ATF CDUA for Existing Single-Family Residence 84-5607 Ke Ala O Keawe Road Hōnaunau, Hawaii 96704 Tax Map Key (3)-8-4-013:016
Applicant:	Sheri Hamilton PO Box 5004 Kailua-Kona, Hawaii 96745
Agent:	Environmental Risk Analysis, LLC 905A Makahiki Way Honolulu, Hawaii 96826 Contact: Russell Okoji (808) 425-0968
Approving Agency:	State of Hawaii Board of Land and Natural Resources PO Box 621 Honolulu, Hawaii 96809
Project Location:	84-5607 Ke Ala O Keawe Road Hōnaunau, Hawaii 96704
Tax Map Key No.:	(3) 8-4-013:016 (Figure 2)

Total Affected Area:	0.2-acre parcel
Existing Land Use:	Portions of the property are developed; other portions are undeveloped.
State Land Use Classification:	Conservation
State Special District:	N/A
Land Use Ordinance Zoning:	Open
Land Use Ordinance Special District:	Special Management Area
Flood Zone:	Flood Insurance Rate Map Zone X
Land Owner:	Sherolyn Parish-Hamilton

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	FIGURE TITLE:	Site Location Map
		FIGURE NUMBER:	1

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Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE: TMK Map

FIGURE NUMBER: 2

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SECTION 2 PROJECT DESCRIPTION

2.1 Project Description – Purpose and Need

This Environmental Assessment (EA) has been prepared to satisfy the requirements of HRS Chapter 343. The purpose of the Proposed Action is to obtain an ATF CDUP for an existing single-family residence on kuleana property owned by the Applicant (i.e., after-the-fact demolition of a former single-family residence and reconstruction of a one-story single-family residence). The Applicant traces her ‘ohana's occupancy of the subject property back to her great-great grandmother and great-great grandfather.

The proposed development site (TMK No. (3) 8-4-013-016) encompasses approximately 0.2 acres of land situated in Hōnaunau on the southwest side of the Island of Hawaii. Currently, this location is zoned Open. Between approximately 2007-2010, the Applicant reconstructed and repaired the existing SFR on the property using hand-demolition (i.e., no machinery) to be a one-story single-family residence, incorporating materials from the former structure (Figures 3 - 6) in generally the same area as the original structure. The objective of this project is to better utilize the land as the former SFR was termite ridden, to continue to utilize the kuleana property to provide housing for the Applicant's family, with a structure that has been carefully designed to withstand potential flood inundation by the 1% Annual Chance Flood and rising sea levels, and not cause adverse impacts to the shoreline.

2.2 Construction Time Frame and Estimated Project Construction Costs

The reconstruction period was approximately 2007 to 2010. The total budget for these improvement activities was estimated at $25,000. All funding for the project was through private sources.

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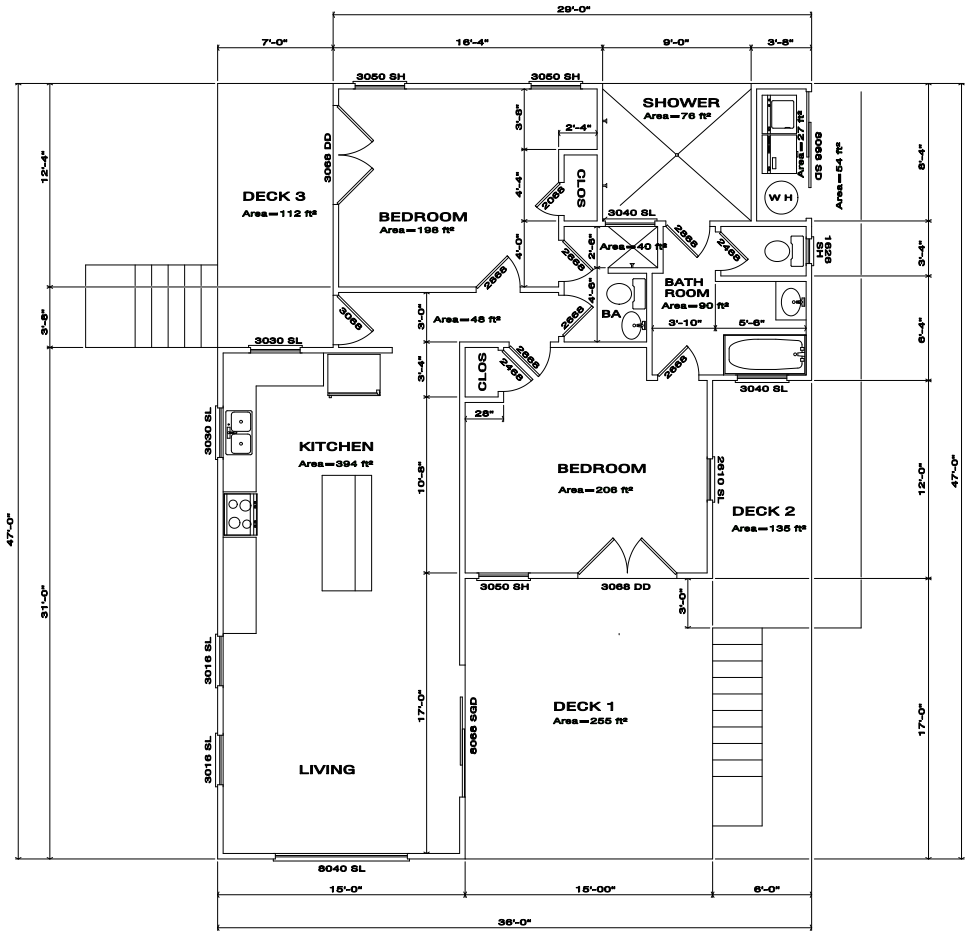
Living/Habitable =	1,079 S.F
Deck/Lanais =	502 S.F
Total House Under Roof =	1,581 S.F
Cesspool Shed Cover =	28 S.F
Ext. Outdoor Shower =	18 S.F
Ext. BBQ (No Walls) =	117 S.F
Total Ext =	163 S.F
Total Roofed =	1,744 S.F
OTHER AREAS	
Ext. Concrete Deck =	170 S.F
Concrete Sidewalks = 95 S.F &	66 S.F
Steps to Concrete Deck =	45 S.F
SUB TOTAL =	376 S.F
GRAND TOTAL =	2,120 S.F

NOTE:

THERE EXISTS A 58' S.F DIFFERENCE BELOW THE MAXIMUM SQUARE FOOTAGE OF 2,176' SQUARE FEET.



FLOOR PLAN

3/8"=1'

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PO BOX 366
CAPTAIN COOK, HI 96704
808-936-9456

CAPTAIN COOK DRAFTING SERVICES

FLOOR PLAN

PLANS PREPARED BY
JON PICKERING

4

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE: Alternative II Site Plan

FIGURE NUMBER: 3

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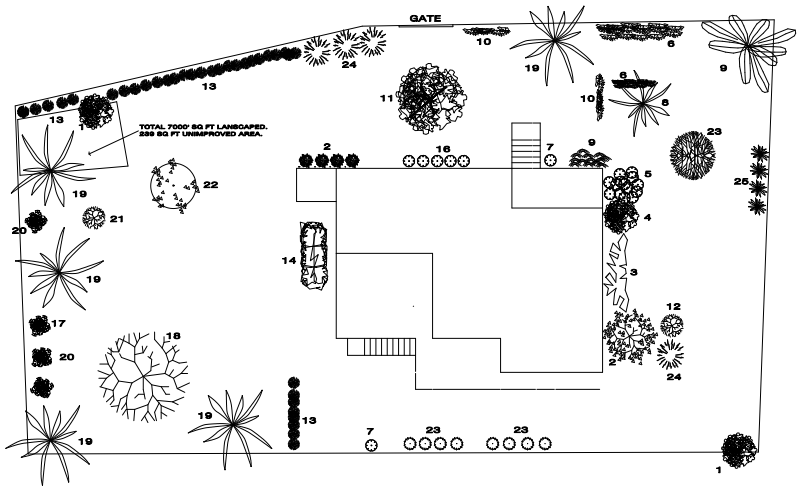
LANDSCAPE FLORA LEGEND

1. ROYAL POINCIANA
2. PUAIKENIKENI
3. BOUGAINVILLEA
4. TIARE
5. RED GINGER
6. SPIDER LILLIES
7. NONI
8. BETELNUT PALMS
9. BANANAS
10. PAKALANA
11. MILO TREE
12. LAUWA'E
13. MOCK ORANGE HEDGE
14. PIKAKE
15. DRACEANA
16. GREEN TI PLANTS
17. POPOLO
18. MONKEY POD TREE
19. COCONUT TREE
20. HIBISCUS
21. KALANCHIO
22. HAWAIIAN COTTON TREE
23. PLUMERIA TREE
24. DRACEANA MONEY TREE
25. LAUHALA

HONAUNAU ROAD



LANDSCAPE PLAN
1/8"=1'

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PO BOX 366
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808-936-9456

CAPTAIN COOK DRAFTING SERVICES

LANDSCAPE PLAN

PLANS PREPARED BY
JON PICKERING

3

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE: Alternative II Project Site

FIGURE NUMBER: 4

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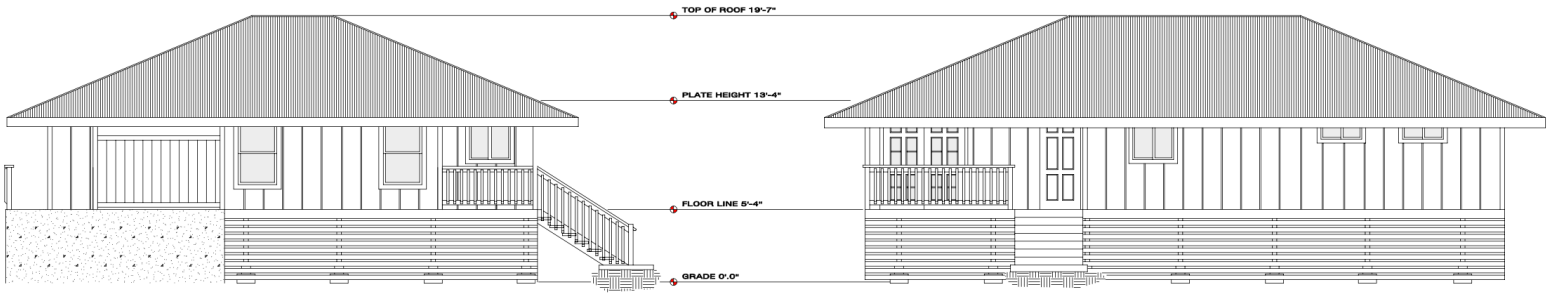

FRONT ELEVATION

1/4" = 1'

RIGHT ELEVATION

1/4" = 1'

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	FIGURE TITLE: Alternative II Front and Right Elevations FIGURE NUMBER: 5

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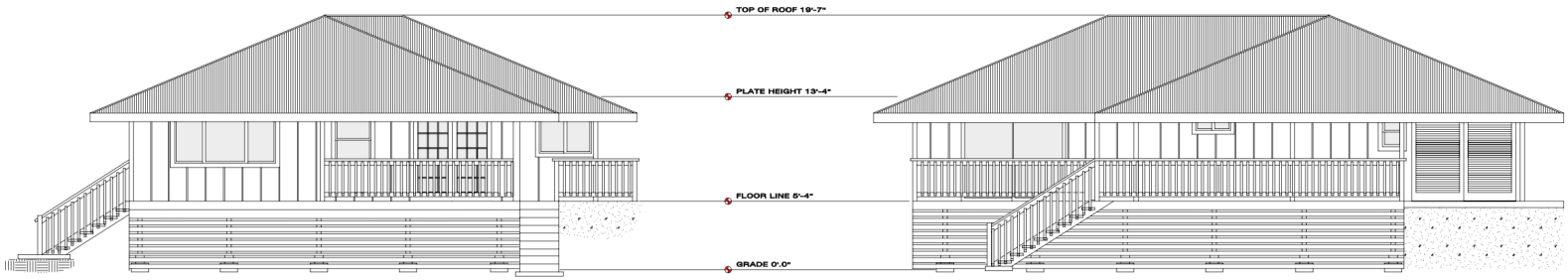

REAR ELEVATION

1/4" = 1'

LEFT ELEVATION

1/4" = 1'

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE: Alternative II Rear and Left Elevations

FIGURE NUMBER: 6

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SECTION 3 ALTERNATIVES INCLUDING THE PROPOSED ACTION

This section details the alternatives that were analyzed in the EA. Under HAR, Title 11, Chapter 200.1 Environmental Impact Statement Rules, Section 11-200.1-18(d)(7), all alternatives considered for the proposed project should be evaluated. These alternatives may possibly enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks.

3.1 Alternative I: No Action Alternative

The No Action alternative assumes the conditions of the Site prior to the demolition of the former SFR and reconstruction of the existing one-story single-family residence, with no repairs, changes, or alterations. This alternative would not accomplish the goals detailed in Section 2.1, Project Description – Purpose and Need.

3.2 Alternative II: The Proposed Action

The Proposed Action assumes the conditions of the after-the-fact demolition of the previously existing SFR and reconstruction of the now existing one-story single-family residence (Figures 3 through 6).

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SECTION 4 AFFECTED ENVIRONMENT

This section discusses the current status of the potentially affected environments should the Proposed Action be implemented. Affected environments include important natural and cultural sources and systems. Environmental consequences are provided in Section 5.

4.1 Physical Environment

4.1.1 Topography and Geology

According to the United States Geological Survey (USGS), Hōnaunau, Hawaii, 7.5-minute topographic quadrangle map, the subject property elevation is approximately 25 feet above mean sea level (Figure 7). The Site is currently developed with a one-story single-family dwelling, partially asphalted driveway, and vegetation interspersed throughout the parcel. The site is relatively flat, sloping upwards from the existing structure from the roadway. The parcel to the north is slightly elevated, and the parcel to the south is slightly lower. None of the vegetation on the Site and surrounding property appeared to be distressed.

4.1.2 Soils

The United States Department of Agriculture (USDA) Soil Conservation Service classifies the soil within the Site as primarily Lava flows-Punaluu complex (123), 0-20 percent slopes. The soil is well drained. Runoff is characterized as very high (USDA, 2022). This soil is not suitable for large-scale or intensive agricultural purposes, however, there is various vegetation growing on the portions of the property not occupied by the SFR of the nature that you would find on a small house lot.

4.1.3 Natural Hazard

The Federal Emergency Management Agency (FEMA) flood insurance rate map (FIRM Map No. 15003C0045H) portrays the Site within Flood Zone X, Base Flood Elevations determined (Figure 8). The elevation is noted as 16 feet. The Site is not in the Special Flood Hazard Area Subject to Inundation by the 1% Annual Chance Flood, and not in the coastal high hazard area as defined in Chapter 21A, ROH (Flood Zone VE and V).

The Site is located in a tsunami evacuation zone. The Hawaii County, Evacuation Zone Map is presented in Figure 9.

The construction area is not anticipated to be impacted by waves, storm surges, high tide, or shoreline erosion. According to the Hawaii Sea Level Rise Viewer, mapping of the project site shows the site is not susceptible to sea level rise at 0.5 feet (www.hawaiisealevelriseviewer.com), Figures 10-13 depict the Site at a predicted sea level rise of 0.5 feet, 1.1 feet, 2.0 feet, and 3.2 feet. At each of these elevations, the Site is not impacted by sea level rise.

4.1.4 Flora and Fauna

The site has been developed and landscaped.

An inquiry with the Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW, 2023) revealed there are seven (7) federally listed species in the vicinity of the project area:

- the endangered Hawaiian hoary bat or ʻŌpeʻapeʻa (*Lasiurus cinereus semotus*),
- the endangered Hawaiian stilt *(Himatopus mexicanhus knudseni*),
- the endangered Hawaiian coot *(Fulica alai),*
- the endangered Hawaiian Duck *(Anas wyvilliana),*
- the endangered Hawaiian Goose *(Branta sandvicensis),*
- the endangered Hawaiian Hawai or ʻIo *(Buteo solitarius),*
- the endangered Blackburn's Sphinx Moth *(Manduca blackburni)*

Wetlands

The U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory, Wetlands Mapper (USFWS, 2022) identified the Pacific Ocean to the west of the property as an Estuarine and Marine Wetland (M2RS1N) close to the shoreline, and an Estuarine and Marine Deepwater (M1UBL) further offshore. The Wetlands Mapper figure is presented as Figure 14.

4.1.5 Water Resources

Groundwater

The Site overlies the Kealakekua aquifer system of the Southwest Mauna Loa aquifer sector on the Island of Hawaii. The aquifer is described as a Basal (freshwater in contact with seawater), unconfined (where water table is upper surface of saturated aquifer), flank (horizontally extensive lavas) aquifer (Mink and Lau, 1990). It is classified as a currently used drinking water source with low salinity (250 – 1,000 milligrams per liter [mg/l] chloride [Cl-], irreplaceable, and highly vulnerable to contamination (Mink and Lau, 1990). The Project Site is not located above any of the nine Sole-Source aquifers identified by US EPA's Region 9.

There is one (1) USGS well within a 1-mile radius of the Site (USGS, 2022). One (1) water well identified in the State Database Well Information is located within a 1-mile radius of the subject property (Hawaii Groundwater, 2022). No wells are located on the property. The Site is down-gradient of the Underground Injection Control (UIC) line (Figure 15) as such; the underlying aquifer is not considered a drinking water source and permit limitations governing the use of these waters are imposed.

Studies have shown anticipated sea level rise could affect the boundary between saltwater and freshwater causing freshwater to be lifted. The result is a rise in the groundwater table. Low elevation coastal planes and shallow groundwater tables are prevalent in Hawaii. The rise in the groundwater level could affect drinking water by turning wells that were previously freshwater

into brackish or saline. Groundwater at the Site is in contact with seawater. The aquifer supporting the Site could experience impacts from sea level rise.

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	FIGURE TITLE:	Topographic Map
		FIGURE NUMBER:	7

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NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations (BFEs) shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 5. The **horizontal datum** was NAD 83, GRS 80 spheroid. Differences in datum, spheroid, projection or UTM Zone used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to Local Mean Sea Level. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For more information, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was provided in digital format by DigitalGlobe, Inc./USDA-NRCS-National Geospatial Management Center, Fort Worth, Texas, and by the Natural Resources Conservation Service, National Conservation Service, National Geospatial Center of Excellence. This information was derived from mosaicked 50-centimeter ground resolution satellite imagery that meets 1:24,000 scale National Standard for Spatial Accuracy standards. These data were collected between 2010 and 2016.

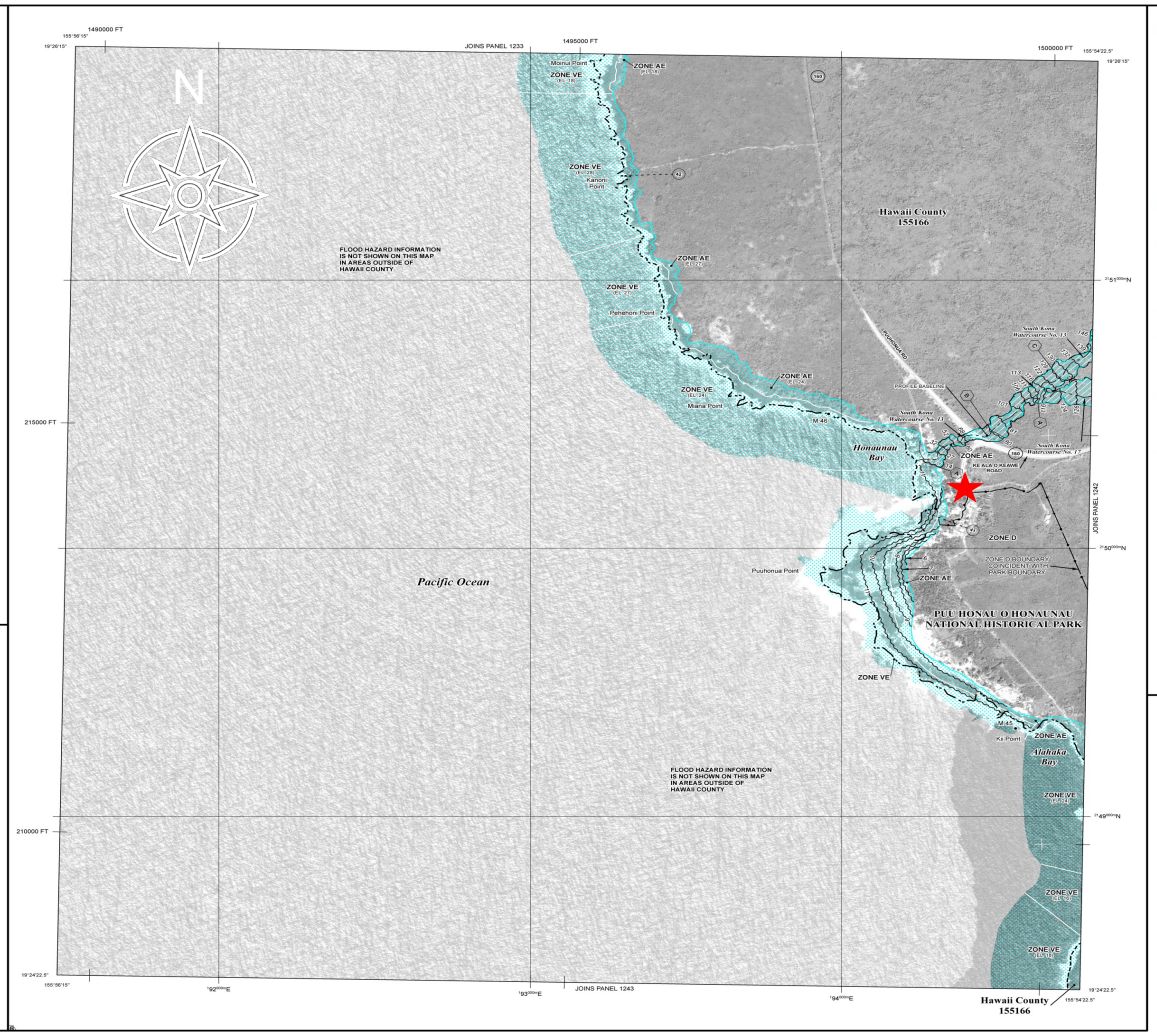
This map may reflect more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of the map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip/.



LEGEND

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 Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, AR/F, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** — No Base Flood Elevations determined.
- **ZONE AE** — Base Flood Elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — 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.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to LOCAL MEAN SEA LEVEL

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4775000mE — 1000-meter Universal Transverse Mercator grid values, zone 5
- 6000000 FT — 5000-foot grid ticks: Hawaii State Plane coordinate system, Zone 1 (FIPSZONE = 5101), Transverse Mercator projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to Map Repositories list on the Map Index

INITIAL NFIP MAP DATE
June 1, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS
None

FLOOD INSURANCE RATE MAP EFFECTIVE
May 5, 1982

FLOOD INSURANCE RATE MAP REVISIONS
September 16, 1988 – July 16, 1990 – May 16, 1994 – June 2, 1995 – April 5, 2004 – September 29, 2017. For a description of revisions, see Notice to Users page in the Flood Insurance Study report.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

PANEL 1241F

NFIP — NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

HAWAII COUNTY, HAWAII

PANEL 1241 OF 1975

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HAWAII COUNTY	155166	1241	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
1551661241F
MAP REVISED
SEPTEMBER 29, 2017

Federal Emergency Management Agency

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE: Flood Insurance Map

FIGURE NUMBER: 8

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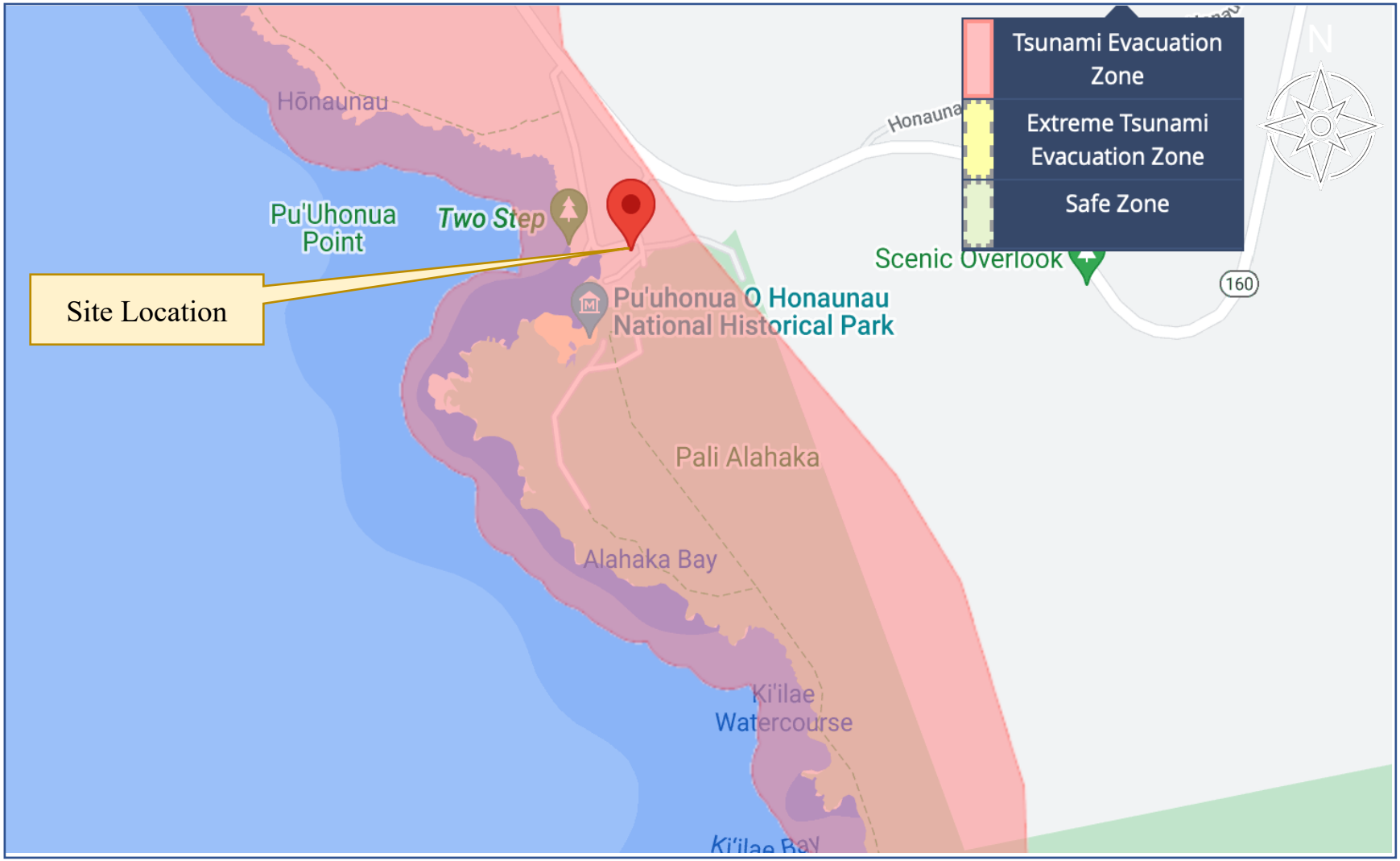

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	FIGURE TITLE: Tsunami Inundation Zone Map FIGURE NUMBER: 9

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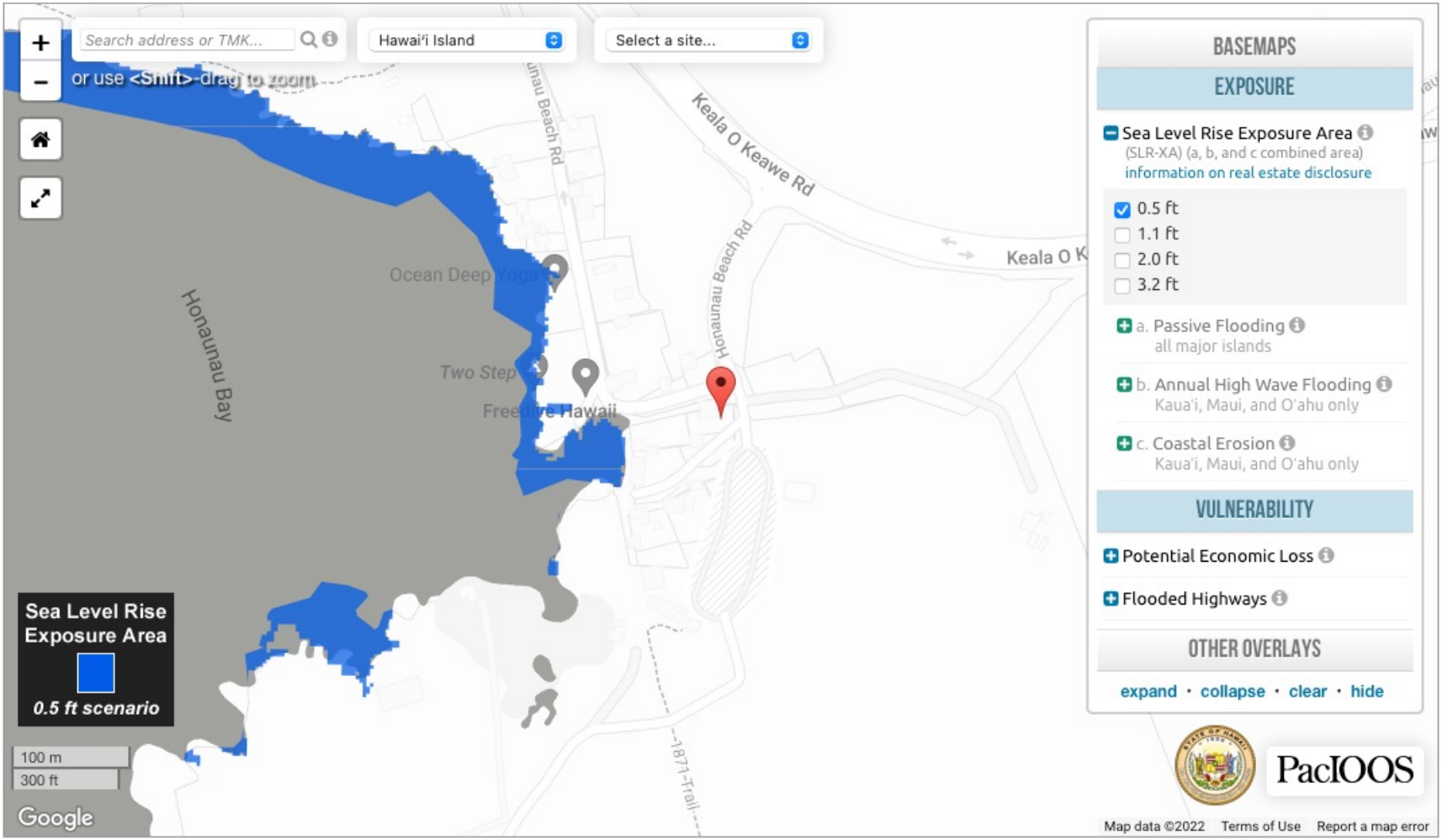

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE: Sea Level Rise 0.5 Feet

FIGURE NUMBER: 10

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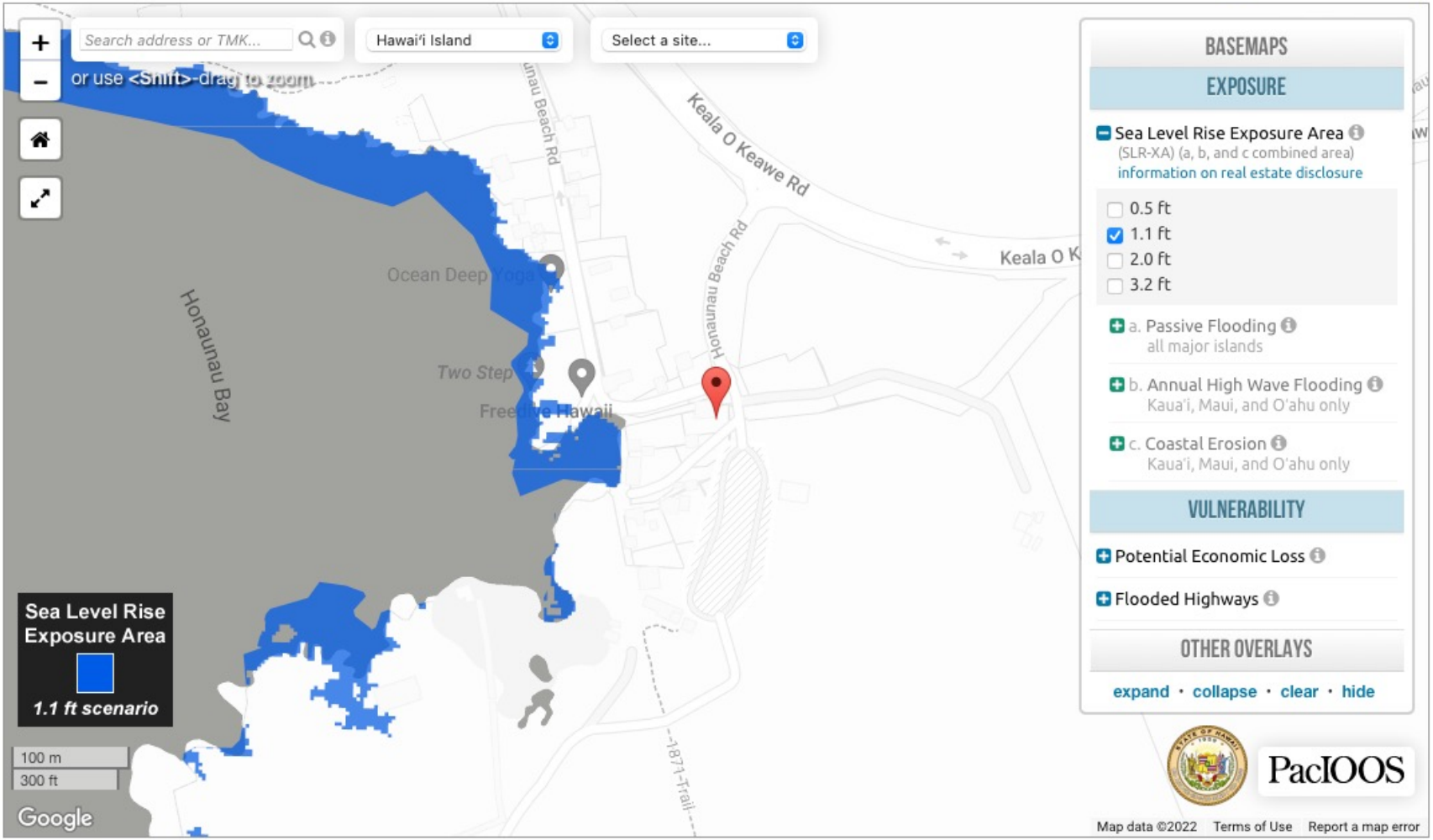

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	FIGURE TITLE:	Sea Level Rise 1.1 Feet
		FIGURE NUMBER:	11

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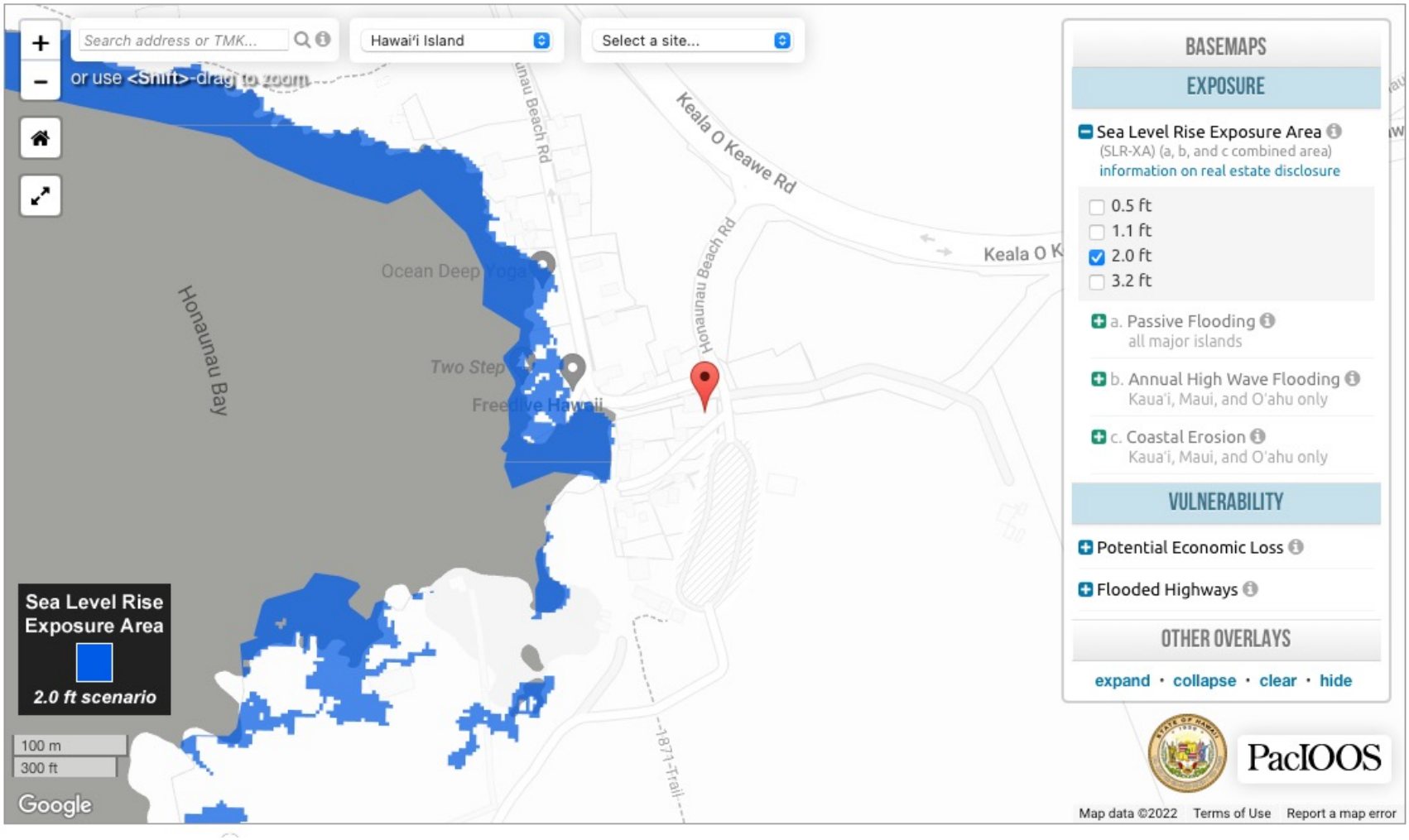

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	FIGURE TITLE:	Sea Level Rise 2.0 Feet
		FIGURE NUMBER:	12

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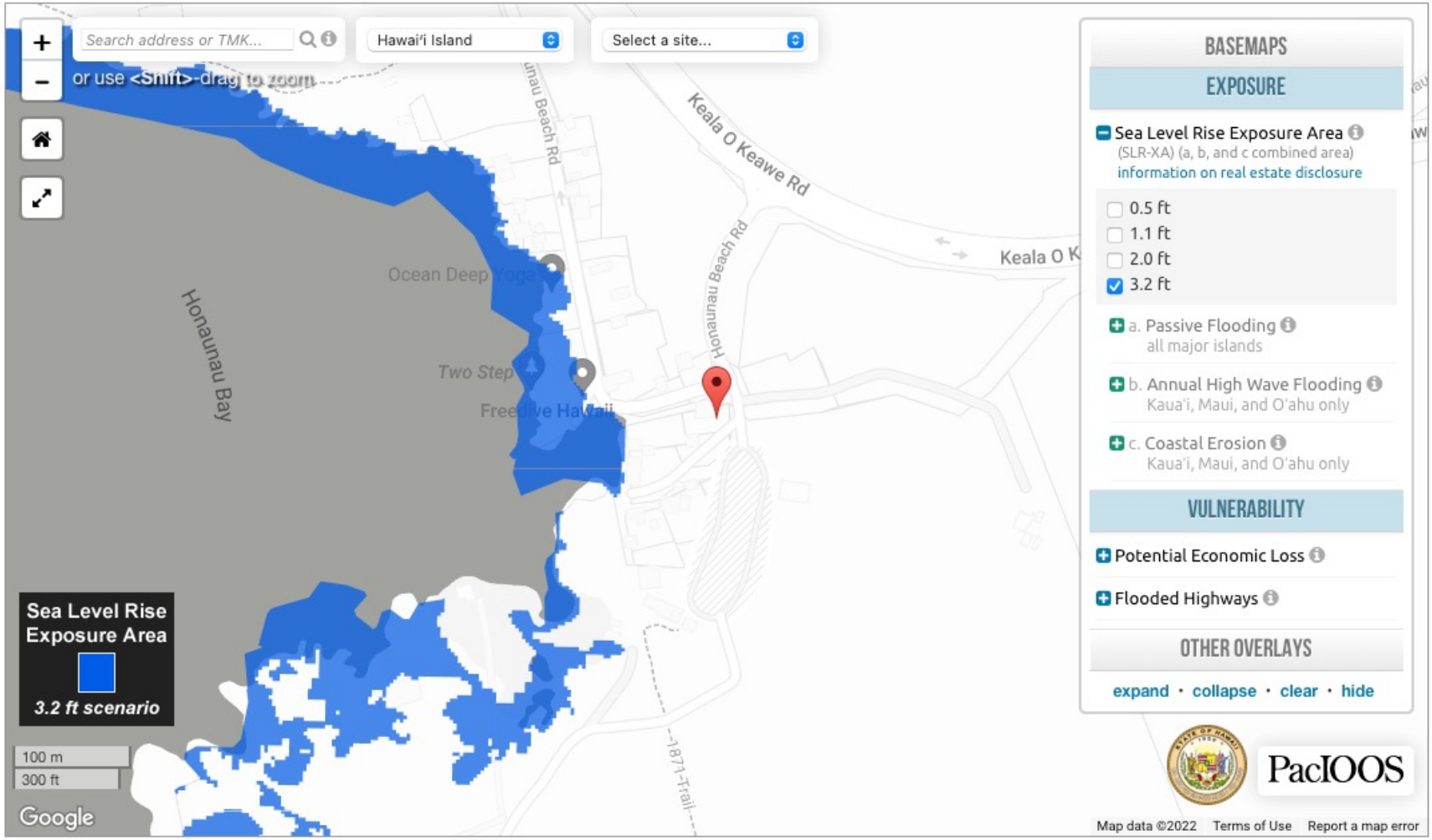

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	FIGURE TITLE:	Sea Level Rise 3.2 Feet
		FIGURE NUMBER:	13

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Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE: Wetlands Map

FIGURE NUMBER: 14

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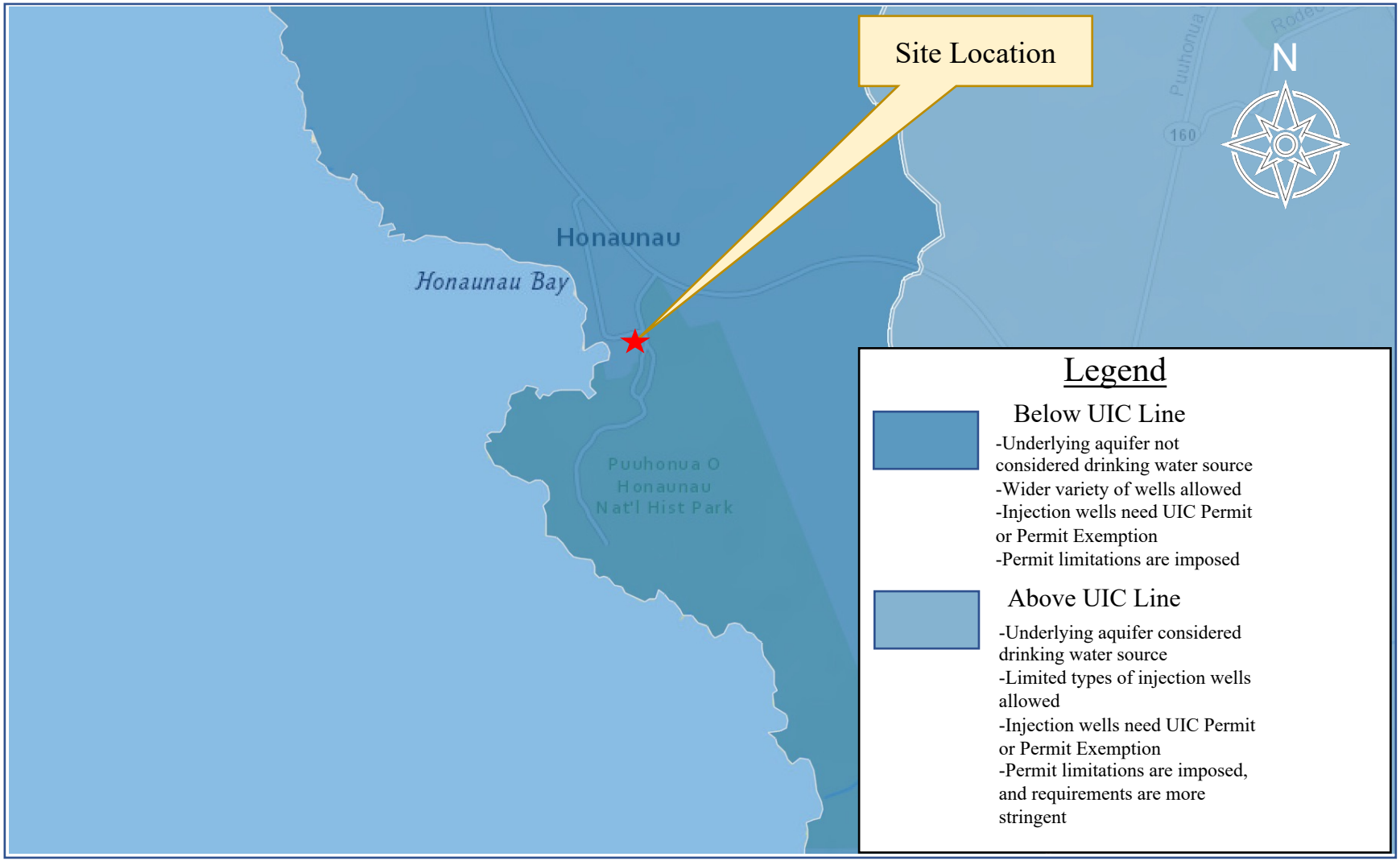

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

FIGURE TITLE:
Underground Injection Control Map

FIGURE NUMBER:
15

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Surface Water

USFWS National Wetland Inventory, Wetlands Mapper (USFWS, 2022) identified the Pacific Ocean to the west of the property.

4.1.6 Climate and Air Quality

The climate in Hōnaunau is characterized with temperatures averaging from the low 70s to the mid-80s. There is moderate humidity and easterly trade winds. The average annual rainfall is approximately 67 inches per year.

Air quality in the vicinity is most affected by proximity to ocean. The Hawaii State Department of Health (HDOH) maintains air monitoring locations throughout the state. In 2017 the State of Hawaii was in attainment of all NAAQS (HDOH Annual Summary 2017 Air Quality Data). There are no air monitoring stations located in the vicinity of the Site. Air monitoring stations are located in areas of commercial, industrial, and transportation activities where the greatest impacts to air quality may be observed.

4.1.7 Noise

Noise impacts from construction-related activities are regulated under the HAR, HDOH, Title 11, Chapter 46, Community Noise Control. The project area is a residential zone, and as such falls into District Class A under the HDOH regulations, with a maximum day (7:00 a.m. to 10:00 p.m.) and night (10:00 p.m. to 7:00 a.m.) sound level threshold of 55 decibels (dBA). District Class A also covers areas zoned as military and federal preservation land, conservation, open space, and public space. Table 1 lists sound exposure levels (SELs) associated with typical equipment, in varying operating modes.

Table 1: Typical Equipment Sound Levels

Equipment	**Sound Level (in dBA) Under Indicated Operational Mode**		
	Idle Power	**Full Power**	**Moving Under Load**
Dozer	63	74	81
Dump Truck	70	71	74
Excavator	62	66	72
Forklift	63	69	91
Front-end Loader	60	62	68
Grader	63	68	78
Sweeper	64	76	85
Tractor-Trailer	67	78	77

4.1.8 Solid Waste

Solid waste on the island of Hawaii is managed at the West Hawaii Sanitary Landfill Management Facility located in Waikoloa. According to the County of Hawaii, Solid Waste

Division and Recycling Section website, hawaiizerowaste.org, County of Hawaii Solid Waste Diversion Public Facilities are comprised of the West Hawaii Sanitary Landfill, the East Hawaii Reload Facility, and twenty-one (21) recycling and transfer stations.

4.1.9 Hazardous Waste

A query of Environmental Data Resources, Inc. (EDR) database was performed to obtain information about federal and state environmental release listings. The Site was not listed on any federal or state environmental database. No sites were listed in the vicinity of the Site.

4.2 Social Environment

4.2.1 Land Use Considerations and Zoning

The County of Hawaii Site Land Use Ordinance Zoning Designation is Open (O). The Site is located in the Special Management Area.

4.2.2 Archaeological and Cultural Considerations

There are no archaeological resources noted in the HICRIS site for the subject property. There is one above ground resource identified in the Hōnaunau Ahupua‘a. It is: 1) St. Benedict’s Catholic Church, Painted Church. A spatial search of the property did not result in any resources.

An Archaeological Inventory Survey of the Site, also identified as Land Commission Award No. 9769B, was prepared by ASM Affiliates in June 2022. As a result of the fieldwork for the study, one newly identified historic property (Site 50-10-47-T-1) was recorded. Site T-1 is the *kuleana* lot associated with the site. The majority of the site had been landscaped or had the existing single-family dwelling on it; however, three archaeological features associated with a *pāhale* were identified: a rock wall surrounding the parcel, two bait cups, and one salt pan. The individual elements of Site T-1, collectively, retain sufficient integrity of all categories to be assessed as significant under Criterion d for the information yielded during the study relative to the history of settlement in the coastal village of Hōnaunau during the Precontact era into the twentieth century. The study had adequately documented Site T-1, and no further historical preservation work is recommended. The issuance of the after-the-fact-CDUP will not involve any ground disturbance or other activities with potential to affect Site T-1. The study concluded that the recommended determination of effect is “no historic properties affected”.

4.2.3 Circulation and Traffic

The Site is only accessible by way of Hōnaunau Beach Road. The immediate area surrounding the Site is not densely populated, therefore, traffic is light to moderate. However more populated areas are located to the east of the property. Ke Ala O Keawe Road is the only means to and from the area.

The Department of Transportation was sent a preconsultation letter for the proposed project. No response was provided.

4.2.4 Social Factors and Community Identity

Aerial photographs from 2007 depicts the area as vegetated and developed. There is a roadway in the vicinity of the Site. The Site is located less than a mile from Pu‘uhonua O Honaunau National Historic Park.

According to the U.S. Census Bureau the population in Hōnaunau-Napoopoo CDP was approximately 2,416 people (Census, 2020). There are approximately 1,025 households with an average of 3.05 people per household (Census, 2020).

4.2.5 Economic Considerations

According to the U.S. Census Bureau (Census, 2020) the median household income in Honaunau-Napoopoo CDP is $59,821 in 2020, compared to the $84,857 median household income for all of Hawaii.

4.2.6 Recreational and Public Facilities

Recreational activities in the area mainly consist of outdoor activities such as swimming, surfing, scuba diving, snorkeling, dolphin, and whale watching, hiking, and camping, golfing, boating, and fishing.

A number of recreational areas and facilities are located throughout the Island of Hawaii, consisting of beach parks, golf courses, district and neighborhood parks, and community centers. Pu‘uhonua O Honaunau National Historic Park is 450 feet south from the Site, Two Step Nature Preserve is 450 feet to the west, and Ala Kahakai National Historic Trail is 0.9 miles south in close proximity to the Site located along the coast on the Pacific Ocean.

4.2.7 Visual and Aesthetic Resources

Hōnaunau does afford beautiful views, however the subject property is not specifically identified in any county or State plans or studies as containing scenic vistas or view planes. The Proposed development at the Site is not identified as a scenic vista or view plane nor will it affect identified scenic vistas or view planes. The Proposed Project will not affect scenic corridors and coastal scenic and open space resources. The project development will not have buildings exceeding two stories.

4.2.8 Infrastructure Systems and Utilities

Drinking water utility services is supplied by the Department of Water Supply. Drinking water supply is from the Napoopoo Well. The property is currently served by an existing cesspool. Electricity service is supplied by Hawaii Electric Light Company. Gas service is supplied by

Hawaii Gas. Telephone, cable, and internet can be provided by Spectrum or Hawaiian Telcom, as well as satellite service providers.

The Hawaii Fire Department has 37 engine companies throughout the island of Hawaii. The closest fire station is the Captain Cook Fire Station. It is located at 82-6120 Mamalahoa Highway and is located approximately 10 miles from the Site. The next nearest station is Keauhou Fire Station, located at 78-7159 Puuloa Road, which is approximately 16 miles from the Site.

The Hawaii County Police Department is in Kailua. The department's closest police station is the Hawaii Sheriff Division – Kona Section which is located at 79-1020 Haukapila Street, approximately 10 miles from the Site.

Kona Community Hospital is approximately 10.4 miles from the project site. Kona Community Hospital provides emergency, medical, diagnostic, and therapeutic health services.

The Project Site is located within the Hawaii District. Hōnaunau, Hookena, and Kahakai Elementary Schools service the area. Kealakehe High and Intermediate Schools would service the Site. Honaunau Elementary School reported 151 students in its 2021-2022 academic year roster. Kealakehe Intermediate School reported 676 students in the 2021-2022 academic year roster. Kealakehe High School reported 1,407 students in its 2021-2022 academic year roster. In addition, there are 2 pre-schools in the Honaunau area. Kona Adventist School is a private school located approximately 10 miles from the Site. The school offers Kindergarten through eighth grade education.

University of Hawaii – Hawaii Community College - Palamanui is located 31 miles from the Site. The campus offers on-site and distance learning classes and programs. Other colleges and universities are located on the Hilo side of Hawaii Island.

SECTION 5 ENVIRONMENTAL CONSEQUENCES AND PROPOSED MITIGATION MEASURES

Potential impacts of Alternative I: No Action and Alternative II: Proposed Action are described in this section of the report. As discussed in Section 3 above, Alternative I assumes the conditions of the Site prior to the reconstruction of the existing SFR on the property. Alternative II assumes the conditions of the Site during reconstruction of the now existing SFR on the property. It is noted that the SFR was reconstructed slowly over an approximate four-year period from approximately 2007-2010. No further construction is planned for the SFR. This EA is meant to support the ATF CDUA.

Impacts are evaluated on whether they constitute a "significant effect" on a particular environmental setting. Impacts are described as having No Impact, Significant Adverse Impact or Beneficial Impact depending on the outcome to the environment. The terms impact and effect are used synonymously in this EA. Impacts may apply to the full range of natural, aesthetic, historic, cultural, and economic resources. The following subsections define key terms used throughout Section 5.

Significance Criteria

A "significant effect" is defined by HRS Chapter 343 as "the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State's environmental policies or long-term environmental goals as established by law, or adversely affect the economic welfare, social welfare, or cultural practices of the community and State."

Beneficial Versus Adverse

Impacts from the Proposed Action may also have beneficial or adverse effects to the environment. Beneficial impacts are those that have favorable outcomes and add value to the environment. Adverse impacts are those that produce detrimental effects and cause harm to the environment.

Cumulative Impacts

Cumulative impacts are two or more individual effects which, when considered together, compound or increase the overall impact. Cumulative impacts can arise from the individual effects of a single action or from the combined effects of past, present, or future actions. Thus, cumulative impacts can result from individually minor but collectively significant actions taken over a period of time. The cumulative impacts of implementing the Proposed Action along with past and reasonably foreseeable future projects proposed were assessed based upon available information. Cumulative impacts are discussed in Section 5.3.

Mitigative Measures

Mitigative measures are defined as measures taken to avoid, reduce and compensate for adverse impacts to a resource. Mitigative measures are identified and discussed for each alternative, where relevant. In this EA, mitigative measures are provided to reduce adverse impacts when levels of impact are more than minor and to ensure levels of impact are not significant. Only those mitigative measures that are practicable have been identified.

5.1 Physical Environment

5.1.1 Topography and Geology

Alternative I

No significant adverse impacts to the topography or geology are expected to result from Alternative I. The Site would remain the same as there would be no construction.

Alternative II

No significant adverse impacts to the topography or geology are expected to result from Alternative II. As the Site is currently flat with vegetation, no significant changes to the topography are necessary for construction. Construction and operational activities would follow existing topography. No construction within or modification to the existing shoreline is anticipated (the subject Site is not a shoreline parcel).

5.1.2 Soils

Alternative I

No significant adverse impacts are anticipated for Alternative I. Site conditions would remain the same.

Alternative II

Alternative II could have a potential significant adverse impact to soils as a result of construction activities (i.e., clearing, grubbing, excavation and trenching) that disturb the earth and soils. Exposed soils are susceptible to erosion during periods of heavy rain or wind; however, the Site location is generally arid for most of the year. Short-term adverse impacts would be minimized to less than significant or avoided by implementing temporary erosion control measures during construction activities. Best management practices (BMPs) with erosion and sediment control measures, including silt fences, berms, and other erosion control devices, shall be prepared and implemented to confine the proposed excavation and construction activities, and prevent potential soil, construction debris and polluted runoff from adversely impacting the coastal ecosystem, and the shoreline below.

5.1.3 Natural Hazard

Alternative I

No significant adverse impacts to natural hazard vulnerability would result from Alternative I as the Site would remain undeveloped.

Alternative II

No significant adverse impacts to natural hazard vulnerability would result from Alternative II. The project area lies approximately 25 feet above mean sea level and is classified within Flood Zone X. The Site is depicted as an area determined to be outside the 0.2% Annual Chance Flood. Construction design has taken in to account the Flood Zone designation and has included design elements to prevent adverse impacts to the project. No portion of the proposed structures lies within the areas identified to be impacted by sea level rise of 0.5 feet to 3.2 feet. Construction design has taken in to account the Flood Zone/tsunami/sea level rise concerns and has included design elements to prevent adverse impacts to the project, such as placement of the structure as far from the shoreline as possible.

5.1.4 Flora and Fauna

Alternative I

No significant adverse impacts to flora/fauna are anticipated due to Alternative I as the site would remain undeveloped.

Alternative II

No significant adverse impacts to flora and fauna are anticipated due to Alternative II. No threatened or endangered species are known to exist in the project area. An inquiry with the Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW, 2022) revealed there are seven federally listed species in the vicinity of the project area. The DOFAW provided the following recommendations to avoid or minimize project impacts to listed species:

Endangered Hawaiian hoary bat or ʻŌpeʻapeʻa

The Hawaiian hoary bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away. Additionally, Hawaiian hoary bats forage for insects from as low as 3 feet to higher than 500 feet above the ground and can become entangled in barbed wire used for fencing.

To avoid and minimize impacts to the endangered Hawaiian hoary bat, the DOFAW recommend that projects incorporate the following applicable measures into the project description:

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15).

- Do not use barbed wire for fencing.

Hawaiian stilt, Hawaiian coot, Hawaiian Duck, and Hawaiian Goose

State-listed waterbirds could potentially occur at or in the vicinity of the proposed project site. Artificial lighting can adversely impact seabirds that may pass through the area at night by causing them to become disoriented. This disorientation can result in their collision with manmade structures or the grounding of birds.

To avoid and minimize potential project impacts to state listed water birds, DOFAW recommend that projects incorporate the following applicable measures into the project description:

- For nighttime work that might be required, all lights used should be fully shielded to minimize the attraction of seabirds.
- Nighttime work that requires outdoor lighting should be avoided during the seabird fledgling season, from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea.
- Permanent lighting poses a risk of seabird attraction and as such should be minimized or eliminated to protect seabird flyaway and preserve the night sky.
- Install automatic motion sensor switches and timer controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.

Hawaiian Hawk or ‘Io

The state listed Hawaiian Hawk or ‘Io may occur in the project vicinity. To avoid and minimize potential project impacts to state listed water birds, DOFAW recommend that projects incorporate the following applicable measures into the project description:

- Survey the area to ensure no Hawaiian Hawk nests are present if trees are to be cut. ‘Io nests may be present during the breeding season from March to September.

Blackburn’s Sphinx Moth

The project area is within the range of the State listed Blackburn’s Sphinx Moth (BSM). Larvae of BSM feed on many nonnative hostplants that include tree tobacco, which grows in disturbed soil.

To avoid and minimize potential project impacts to state listed water birds, DOFAW recommend that projects incorporate the following applicable measures into the project description:

- Remove plants less than one meter in height or during the dry time of the year to avoid harm to BSM.
- If it is intended to either remove tree tobacco over one meter in height or disturb the ground around or within several meters of these plants, they must be thoroughly inspected by a qualified biologist for the presence of BSM eggs and larvae.

The Division of Forestry and Wildlife also recommends using native plant species and not invasive species for landscaping and are appropriate for the area (i.e., climate conditions are suitable for the plant to thrive, historically occurred there, etc.). DOFAW also recommends minimizing the movement of plant or soil material between worksites. Soil and plant material may contain invasive fungal pathogens (e.g., Rapid ʻŌhiʻa Death), vertebrate and invertebrate pests, or invasive plant parts that could hard our native species and ecosystems.

5.1.5 Wetlands

Alternative I

No significant adverse impacts to wetlands are anticipated due to Alternative I as the Site would remain undeveloped.

Alternative II

No significant adverse impacts are anticipated under Alternative II. Alternative II, the Proposed Action, would not result in loss or destruction of existing wetland resources with the use of appropriate BMPs. No wetlands are located within the project area.

5.1.6 Water Resources

Alternative I

No significant adverse impacts to groundwater or surface water would result under Alternative I, the no action alternative. Site conditions would remain the same.

Alternative II

No significant adverse impacts are anticipated to groundwater resources assuming implementation of Alternative II, the Proposed Action. Hazardous substances that could adversely affect groundwater are not likely to be introduced or released into the soil given the proposed use of the Site as housing. No significant impact to surface water near the Site is anticipated because of construction or operations associated with Alternative II as there are no streams or surface water bodies at the Site.

Potable water uses and wastewater generated by the proposed project would not impact current services as these are single family homes.

The Site is not located on a sole source aquifer. Additionally, reuse of stormwater or use of "gray water" are being assessed for incorporation into the proposed design. No significant impact to surface water near the Site is anticipated as a result of construction or operations associated with Alternative II with the use of best management practices. There are no designated wild and scenic rivers in the State of Hawaii.

A NPDES permit, if required, would be obtained for discharges of wastewater, to include stormwater runoff, prior to construction or operations. Any discharges would comply with the NPDES permit and State Water Quality Standards (HAR Chapter 11-55, and HAR Chapter 11-54 respectively).

5.1.7 Climate and Air Quality

Alternative I

Alternative I would not have a significant adverse impact to air quality as the existing conditions would remain unchanged.

Alternative II

Under Alternative II, potentially significant adverse impacts to air quality from earth moving and excavation activities during construction activities (i.e., fugitive dust emissions) are anticipated. Temporary increases in traffic during the construction phase of Alternative II are also anticipated to increase emissions from combustion as well as increase fugitive dust. Adequate dust control measures, in compliance with Section 11-60.1-33, "Fugitive Dust", of HAR will be implemented during all phases of construction. BMPs (i.e., watering of roads and trenches during project activities, use of a dust screen which surrounds the project area) would reduce any impacts to less than significant. Other reasonable measures to control airborne, visible fugitive dust which will be considered include, but are not limited to, the following:

- Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- Providing an adequate water source at the site prior to start-up of construction activities;
- Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
- Minimizing airborne, visible fugitive dust from shoulders and access roads;
- Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- Controlling airborne, visible fugitive dust from debris being hauled away from the project site.

Once project construction is complete, impacts to air quality would not be significant.

5.1.8 Noise

Alternative I

No significant adverse impacts to noise are expected to occur under Alternative I. Site conditions would remain unchanged.

Alternative II

No significant noise disturbance is anticipated, as the properties immediately surrounding the Site are undeveloped. HDOH Administrative Rules, Title 11, Chapter 46, "Community Noise Control" regulations and CFR 24 CFR Subpart B - Noise Abatement and Control will be complied with for the duration of the project. Construction activities at the Site may increase noise levels, however these activities will be limited to daylight hours. If noise levels exceed allowable levels, then a noise permit will be obtained. No industrial processes or activities that would contribute to a significant adverse impact to the noise environment are planned under Alternative II.

No significant increases in noise are anticipated. While overall noise levels would increase due to a miniscule rise in area population, increases would only be observed as slight increases in vehicular traffic, mechanical noise (i.e., air conditioning) and voice load. No industrial processes or activities that would contribute to a significant adverse impact to the noise environment are planned under Alternative II.

5.1.9 Solid Waste

Alternative I

No significant adverse impacts to solid waste are expected to occur under Alternative I. Site conditions would remain unchanged.

Alternative II

Construction activities at the Site will increase solid waste and construction wastes. Waste generated by site preparation will primarily consist of demolition of one structure, vegetation, rocks, and debris from clearing, grubbing, and grading. These wastes will be minimized by proper planning of building materials and recycling efforts. A solid waste management plan will be coordinated with the County's Solid Waste Division for the disposal of onsite and construction-related waste material.

Solid waste generation will be slightly increased over the current conditions. However, West Hawaii Sanitary Landfill Management Facility will have adequate capacity to accommodate waste generate from the proposed project. This increase in waste generation would not contribute to a significant adverse impact under Alternative II. In addition, the proposed project will support programs that encourage waste reduction, recycling, and other green/environmentally friendly practice

5.1.10 Hazardous Waste

Alternative I

No significant adverse impacts to are expected to occur under Alternative I. Site conditions would remain unchanged.

Alternative II

Construction activities at the Site will increase hazardous wastes. These wastes can be minimized by pre-construction proper planning.

Household hazardous waste (e.g., batteries, paints, cleaners, etc.) generation will be increased slightly over the current conditions. This increase in waste generation would not contribute to a significant adverse impact under Alternative II. There is one facility on island that manages solid waste.

5.2 Social Environment

5.2.1 Land Use Considerations and Zoning

Alternative I

Alternative I would have a direct adverse impact to land use and zoning. The Site is currently developed but is zoned O Open. The No Action Alternative would not be utilizing the land to its fullest potential.

Alternative II

Alternative II would have a significant beneficial impact on land use and zoning. Consistency with its zoning designation utilize more of the property for residential use and to continue the use of the property for a kuleana residence.

5.2.2 Archaeological and Cultural Considerations

Alternative I

No significant adverse impacts are associated with the No Action Alternative as no change to the current infrastructure would occur.

Alternative II

Alternative II would involve ground disturbing activities that may adversely impact historical and archaeological resources.

If human osteological remains or a potential archaeological site are uncovered during construction activities, mitigation measures will be implemented. Specifically, site work will cease, and the Hawaii State Historic Preservation (SHPD) would be contacted in compliance with Chapter 6E of the HRS. These mitigation measures will ensure no loss or destruction of historic and archaeological resources, avoid adverse impacts to potential sites, and ensure compliance with State laws and regulations. Implementation of mitigation measures would reduce any potential impacts associated with Alternative II to less than significant.

5.2.3 Circulation and Traffic

Alternative I

No significant adverse impacts are anticipated under Alternative I. Site conditions would remain the same.

Alternative II

No significant adverse impacts are anticipated under Alternative II. The Site is located along Ke Ala O Keawe Road. The primary traffic affected would be a local traffic and tourists passing through, therefore minimal disruption to the area is anticipated.

During construction activities, access and traffic are anticipated to increase compared to normal Site operations. If access and traffic are impacted as a result of renovation activities, minimizing impact on traffic and access to less than significant levels can be accomplished by the following:

1) Mobilizing and de-mobilizing construction vehicles and equipment during non-peak traffic hours.
2) Use of temporary traffic control devices, such as signage, barricades, and cones, in accordance with City and County traffic standards; and
3) If necessary, utilize off-duty police to manage traffic.

5.2.4 Social Factors and Community Identity

Alternative I

Alternative I would have no impact to the social and community identity. Site conditions would remain unchanged.

Alternative II

Construction of additional residences is expected to have a significant beneficial impact on the social and community identity of the area. If the proposed project is not completed, the property would remain vacant and unused for an undetermined amount of time. The proposed project will add residences to the district and provide construction employment.

5.2.5 Economic Considerations

Alternative I

No significant adverse impacts are anticipated under Alternative I. Site conditions would remain unchanged.

Alternative II

No adverse impacts to the economy in the vicinity of the Site are anticipated as a result under Alternative II. The proposed project will result in short-term economic benefits for the construction industry and may help support small businesses in the area.

5.2.6 Recreational and Public Facilities

Alternative I

No significant impacts are anticipated under Alternative I. Site conditions would remain unchanged.

Alternative II

Alternative II is expected to have no significant adverse impact on the recreational and public facilities on the island. There are many beach parks, hiking trails, and other recreational facilities in the area.

5.2.7 Visual and Aesthetic Resources

Alternative I

There would be no significant adverse impact on the visual resources and aesthetics in or around the project area anticipated with Alternative I as this alternative shall not bring about any changes in the existing conditions.

Alternative II

Significant adverse impacts to visual resources are not expected under Alternative II. Construction of the SFR will not significantly impact the view of adjacent buildings, as there are few buildings near the site. Significant public views will also not be affected. The property is appropriately landscaped with common vegetation that buffers the views of the SFR.

5.2.8 Infrastructure Systems and Utilities

Alternative I

No significant adverse impacts are anticipated under Alternative I. Site conditions would remain unchanged.

Alternative II

Alternative II is expected to have little impact on the infrastructure and utilities in and around the project area. Water, electricity, and gas services are expected to be supplied by the same service providers used within the area and are anticipated to be at the same level of use.

Waste diversion will be implemented during the proposed project construction and operation. The proposed project plans to recycle/reuse (mulch for ground cover, repurpose materials when appropriate, etc.).

No impacts to educational facilities are anticipated.

5.3 Cumulative Impact

Cumulative effects are not anticipated as a result of implementing Alternatives I or II. The actions themselves do not involve a commitment to larger actions. The alternatives will likely not result in substantial secondary impacts, such as population changes or effects on public facilities. Alternative I will effect no change to the project area. Alternative II assumes the hand-demolition of the previous SFR and recontruction of the now existing one-story single-family residence. Population changes or effects on public facilities would be minimal. The change in population and demand for public facilities would be readily met by existing infrastructure.

Any large future projects in the area would likely be related to Pu‘uhonua O Honaunau National Historic Park. It is anticipated that any work being performed at this location would not have significant impacts to existing infrastructure.

The continuation of this kuleana household in this community would not tax the resources that are available.

SECTION 6 RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS

The purpose of Section 6 is to identify plans and policies that may be applicable to this project and summarize the relationship of the plans and policies to project actions. Additionally, the intent is to revisit these plans and policies to qualify any significant effects from actions proposed in this EA.

6.1 State and County Land Use Plans and Policies

6.1.1 State Land Use

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission (LUC), establishes four (4) major land use districts in which all lands in the state are placed. These districts are designated as Urban, Rural, Agricultural, and Conservation. The parcel proposed for development is located in the State Land Use Conservation District.

6.1.2 County Zoning

The County of Hawaii, Planning Division, indicates the Site Land Use Ordinance Zoning Designation is Open (O). The Site is not located in a Special District but is located in a Special Management Area.

6.1.3 Conservation District

HRS Chapter 183C

HRS Chapter 183C was enacted 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 Department of Land and Natural Resources, Office of Conservation and Coastal Lands regulate land use in the conservation district by the issuance of permits.

HAR Chapter 13-5

HAR Chapter 13-5 regulates land-use in the conservation district for the purpose of conserving, protecting, and preserving natural and cultural resources through appropriate management to promote long-term sustainability and public, health, safety and welfare. Approval of the ATF CDUP for the use of the property and associated single-family residence within the State Land Use Conservation District is required.

6.1.4 Chapter 205A Coastal Zone Management

Chapter 205A, HRS, also known as the Coastal Zone Management Program, is a long-range comprehensive plan that serves as a guide for the future long-range development of the State to protect recreational, historic, scenic, and open space resources, coastal ecosystems, economic uses, coastal hazards, beach and coastal dunes, marine and coastal resources as well as manage

development and stimulate public participation. The proposed project is in accordance with the following objectives and policies of the Coastal Zone Management Program:

Objectives

- Recreational Resources: The proposed project will not prevent access to coastal recreational opportunities to the public, as appropriate;
- Historic resources: The proposed project will seek to 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, as appropriate.
- Scenic and open space resources: The proposed project will seek to protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources, as appropriate.
- Coastal ecosystems: The proposed project will seek to protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems, as appropriate.
- Economic uses: The proposed project will seek to incorporate public or private facilities and improvements important to the State's economy in suitable locations, as appropriate.
- Coastal hazards: The proposed project will seek to reduce hazard to life and property from coastal hazards, through project design, as appropriate.
- Managing development: The proposed project will seek to facilitate development review process, communication, and public participation in the management of coastal resources and hazards, as appropriate.
- Public participation: The proposed project will seek to stimulate public awareness, education, and participation in coastal management, as appropriate.
- Beach protection: The proposed project will seek to protect beaches and coastal dunes for (i) public use and recreation; (ii) The benefit of coastal ecosystems; and (iii) use as natural buffers against coastal hazards, and coordinate and fund beach management and protection, as appropriate.
- Marine and coastal resources: The proposed project will promote the protection, use, and development of marine and coastal resources to assure their sustainability, as appropriate.

Policies

- Recreational resources; The proposed project will seek, as appropriate:
    - (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 nonpoint 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.
- Historic resources; The proposed project will:
    - (A) Identify and analyze significant archaeological 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.
- Scenic and open space resources; The proposed project will:
    - (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.
- Coastal ecosystems; The proposed project will:
    - (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.

- Economic uses; The proposed project will seek, as appropriate:
  - (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 industry 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.
- Coastal hazards; The proposed project will seek, as appropriate:
  - (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 source pollution hazards;
  - (C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
  - (D) Prevent coastal flooding from inland projects.
- Managing development; The proposed project will seek, as appropriate:
  - (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 or 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.
- Public participation;
  - (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.
- Beach protection; The proposed project will:
  - (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.

- Marine resources; The proposed project:
  - (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.

Senate Bill 2060: Relating to Coastal Zone Management was revised in 2020 to include residential and commercial development for parcels that are impacted by waves, storm surges, high tide, or shorelines erosion, which had not been included previously.

On September 15, 2020, the Coastal Zone Management law was amended to eliminate the single-family dwelling exemption in the SMA for all shoreline parcels, regardless of whether dwelling floor area is less than 7,500 square feet. Consequently, the proposed project is considered a "development" and does not have a valuation in excess of $500,000. SMA Minor Permit No. PL-SMM-2021-000001 was issued by the County of Hawaii Planning Department in 2021.

No portion of the property or proposed project is located within the “shoreline” are as defined by Section 205A-41, Hawaii Revised Statutes (HRS).

6.1.5 Shoreline Setback Ordinance, Chapter 23

The Shoreline Setback Ordinance was designed to protect and preserve the natural shoreline, especially sandy beaches; to protect and preserve public pedestrian access laterally along the shoreline and to the sea; and to protect and preserve open space along the shoreline. It is also a secondary policy of the city to reduce hazards to property from coastal floods. The Shoreline Setback Ordinance works in conjunction with Coastal Zone Management, Chapter 205A.

No portion of the project Site is located within the shoreline. This project is not seeking a variance from the shoreline setback.

6.1.6 Kona Community Development Plan

The County of Hawaii General Plan (2005, amended in 2014) "is the policy document for the long-range comprehensive development of the island of Hawaii." The General Plan evaluated the population, economic activity, natural environment, housing, transportation and utilities, energy, physical development and urban design, public safety, health and education, culture and recreation, and government operations and fiscal management. The General Plan was followed by the Community Development Plans which addressed 7 areas of Hawaii: North Kohala, South Kohala, Hamakua, Hilo, Puna, Ka'u, and Kona.

The proposed project is in accordance with the following the Kona Community Development Plan goals, objectives, and policies:

4.5 HOUSING

- Provide connectivity and transportation choices
- Provide housing choices
- Direct future growth patters toward compact villages, preserving Kona's rural, diverse, and historical character.
- Promote effective governance.

E.4.6 ENVIRONMENTAL RESOURCES

- Turning Stormwater Management info an Asset
    - If the mauka lands are able to mitigate some of the surface stormwater runoff, there is still a challenge in managing stormwater runoff because of Kona's steep topography and undefined drainageways. The objective is to identify the drainageways where major stormflows would be directed, provide a buffer to the drainageways to account for our imperfect knowledge, and to design these drainageways to function as recreational or open space amenities.

6.2 Necessary Permits and Approvals

The following approvals may be required for the implementation of the project. All approvals will be obtained in accordance with approving agency guidelines.

6.2.1 State of Hawaii

(a) Chapter 343, HRS, environmental review
(b) Department of Health
    - Chapter 46, HAR – noise permit, as required
    - Chapter 11-23, HAR – Underground Injection Control permit for the use of drainage injection wells to handle discharges of storm water runoff.
    - Chapter 11-55, HAR – National Pollutant Discharge Elimination System permit for construction stormwater discharges.
(c) Chapter 6E, HRS, State Historic Preservation Division, as required

6.2.2 County of Hawaii

(a) Special Management Area – Minor Permit: Permit No. PL-SMM-2021-000001 received 2021.
(b) Building Permits for infrastructure improvements.
(c) Grading Permits for earthwork activities associated with infrastructure improvements.

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SECTION 7 FINDINGS AND REASONS SUPPORTING AGENCY DETERMINATION

In accordance with the provisions set forth in Chapter 343, HRS, this EA has preliminarily determined that the project will not have significant adverse impacts on the environment. As such, an Anticipated Finding of No Significant Impact (AFONSI) has been determined for the Proposed Action. Anticipated impacts will be temporary and will not adversely impact the environmental quality of the area.

A review of the "Significance Criteria" used as a basis for the above determination is presented below. An action is determined to have a significant impact on the environment if it meets any one of the thirteen (13) criteria.

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

Alternative II would not cause loss or destruction of any natural or cultural resources. The Site has been previously disturbed and constructed upon. Surrounding areas are also developed with residences or agricultural property.

(2) Curtails the range of beneficial uses of the environment;

Alternative II will not curtail the range of beneficial uses of the environment. In fact, the implementation of the Proposed Action would increase beneficial uses of the Site by providing housing in an otherwise underutilized area.

(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;

Alternative II will be in conformance with the Chapter 344, HRS, State Environmental Policy, to enhance the quality of life. The Proposed Action will provide updated housing and improved Site conditions for the protection of the surrounding environment. This is in compliance with the residential zoning status.

(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

Alternative II would have beneficial effects to the economic and social welfare of the community and State. The construction phase of the proposed alternatives would create jobs, and the families who occupy the development will generate income for local businesses. There would be no change in Site activities as it will remain residential. Any potential impacts following implementation of the project would be similar to those prior to the proposed project.

(5) Substantially affects public health;

Alternative II will not have significant effects on public health. The Proposed Action would provide safe and sanitary housing within a suitable living environment, which would ensure a better standard of living.

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

Alternative II will likely not result in substantial secondary impacts, such as population changes or effects on public facilities. The Proposed Action involves the construction of a two-story single-family residence. Population changes or effects on public facilities would be minimal. The change in population and demand for public facilities would be readily met by existing infrastructure.

(7) Involves a substantial degradation of environmental quality;

Alternative II is not likely to result in a substantial degradation of environmental quality. Assessment of impacts associated with the Proposed Action have been minimal.

(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;

Cumulative effects are not anticipated as a result of implementing Alternative II. The Proposed Action does not involve a commitment to larger actions. Much of the land near the Site is undeveloped or agricultural, and the construction of the residences will have minimal impact to the environment.

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

Alternative II is not anticipated to have substantial effects on rare, threatened, or endangered species, or any critical habitat. USFWS identified three federally listed species in the vicinity of the project area. Mitigation measures will be employed as to avoid or minimize any impacts to rare, threatened, or endangered species during and post-construction. There is little potential for encountering such resources as there are no rare, threatened, or endangered species or critical habitats at the Site.

(10) Detrimentally affects air or water quality or ambient noise levels;

No significant impacts on the area's long-term air or ambient noise environments are anticipated to result from Alternative II. During the proposed project, these parameters will be monitored. Any exceedances in local, state, or federal rules or regulations will be mitigated to minimize their effects to the area. Water quality impacts are not anticipated and do not require mitigation measures.

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

The Site is located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.

(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies; or,

Alternative II will not affect the visual aesthetics of the areas identified in the county or state plans and studies. Coastal view planes will not be impacted by the Site.

(13) Requires substantial energy consumption.

Alternative II would not require substantial energy consumption. The addition of an additional residence would impact supply slightly. The change in population and demand for energy would be readily met by existing infrastructure. In addition, energy efficient appliances will be incorporated into the project design.

In summary, the proposed project will provide additional residence opportunities in Hōnaunau. Based on the foregoing analysis, the proposed action is not anticipated to result in any significant adverse impacts. Accordingly, the proposed action is anticipated to be an Anticipated Finding of No Significant Impact (AFONSI).

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SECTION 8 REFERENCES

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SECTION 9 AGENCIES AND ORGANIZATIONS CONSULTED

The following agencies and organizations were contacted during the pre-consultation. Pre-consultation, comment letters and response letters have been reproduced and included in Appendix A.

Federal Agencies

Department of Agriculture, Natural Resources Conservation Service

Department of the Army, US Army Corps of Engineers

Department of Commerce, National Marine Fisheries Service

Department of Homeland Security, US Coast Guard

Department of the Interior, Fish and Wildlife Service

Department of the Interior, Geological Survey - PIWS

Department of the Interior, National Parks Service

Department of the Navy, Pacific Division

Environmental Protection Agency, Region IX Pacific Islands

Department of Transportation, Federal Aviation Administration

Department of Transportation, Federal Highways Administration*

Department of Transportation, Federal Transit Administration

State Agencies

Department of Accounting and General Services (DAGS)

Department of Agriculture

Office of Planning & Sustainable Development*

Department of Business Economic Development & Tourism (DBEDT)

DBEDT, State Office of Planning

DBEDT, Strategic Industries Division

Department of Defense, Engineering Office*

Department of Hawaiian Home Lands

DOH, Wastewater Branch*

DOH, Solid and Hazardous Waste Branch*

Department of Education*

Department of Land & Natural Resources

DLNR SHPD

Department of Transportation

Office of Hawaiian Affairs

University of Hawaii at Manoa *

County Agencies

County of Hawaii Department of Water Supply

County of Hawaii Fire Department*

County of Hawaii Police Department

County of Hawaii Department of Environmental Management

County of Hawaii Department of Public Works

County of Hawaii Department of Parks and Recreation

County of Hawaii Department of Planning

County of Hawaii Mass Transit Agency

*Indicates a comment letter was received prior to completion of the Draft EA document.

APPENDIX A

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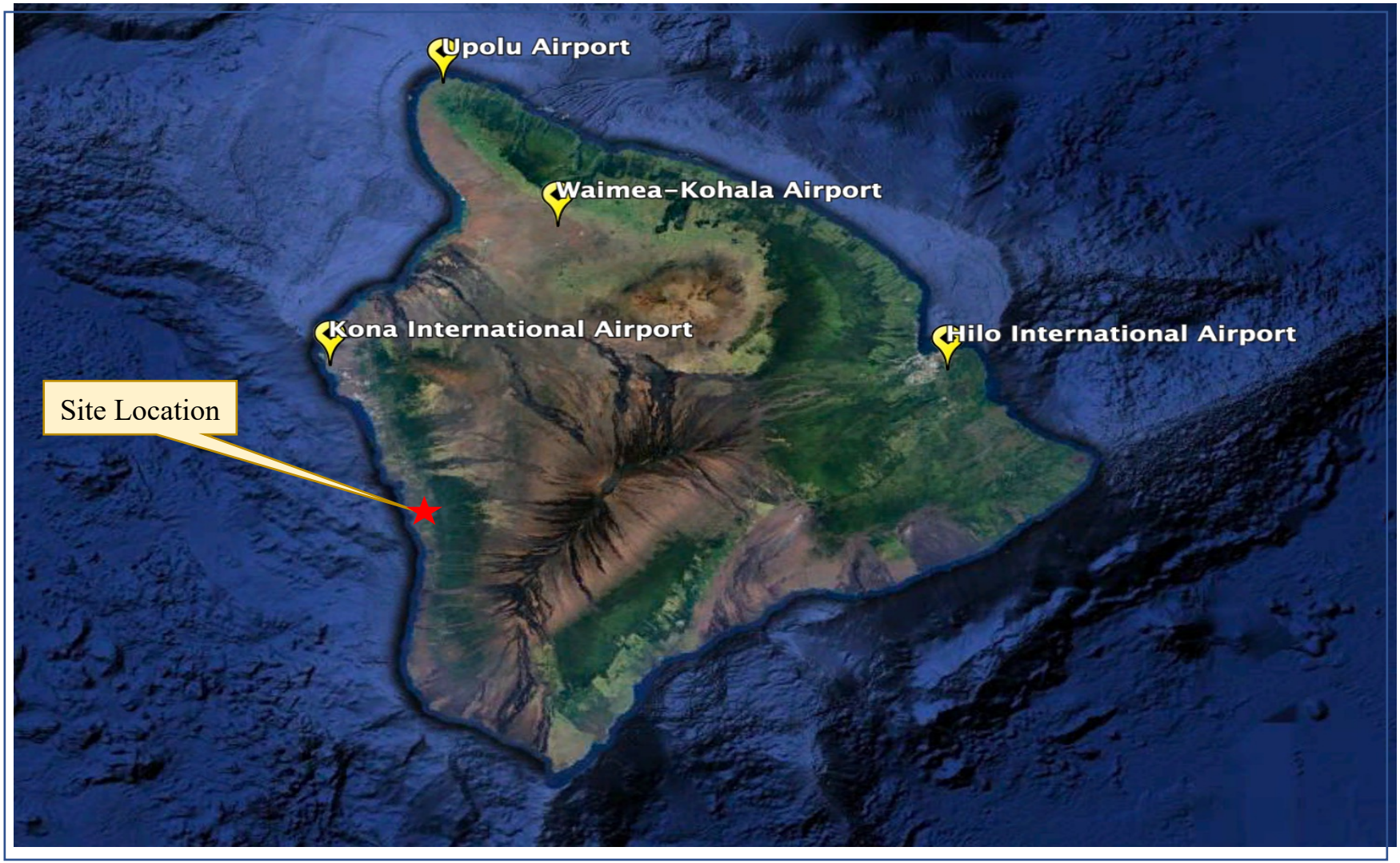
Exhibit 1: Airport Hazards

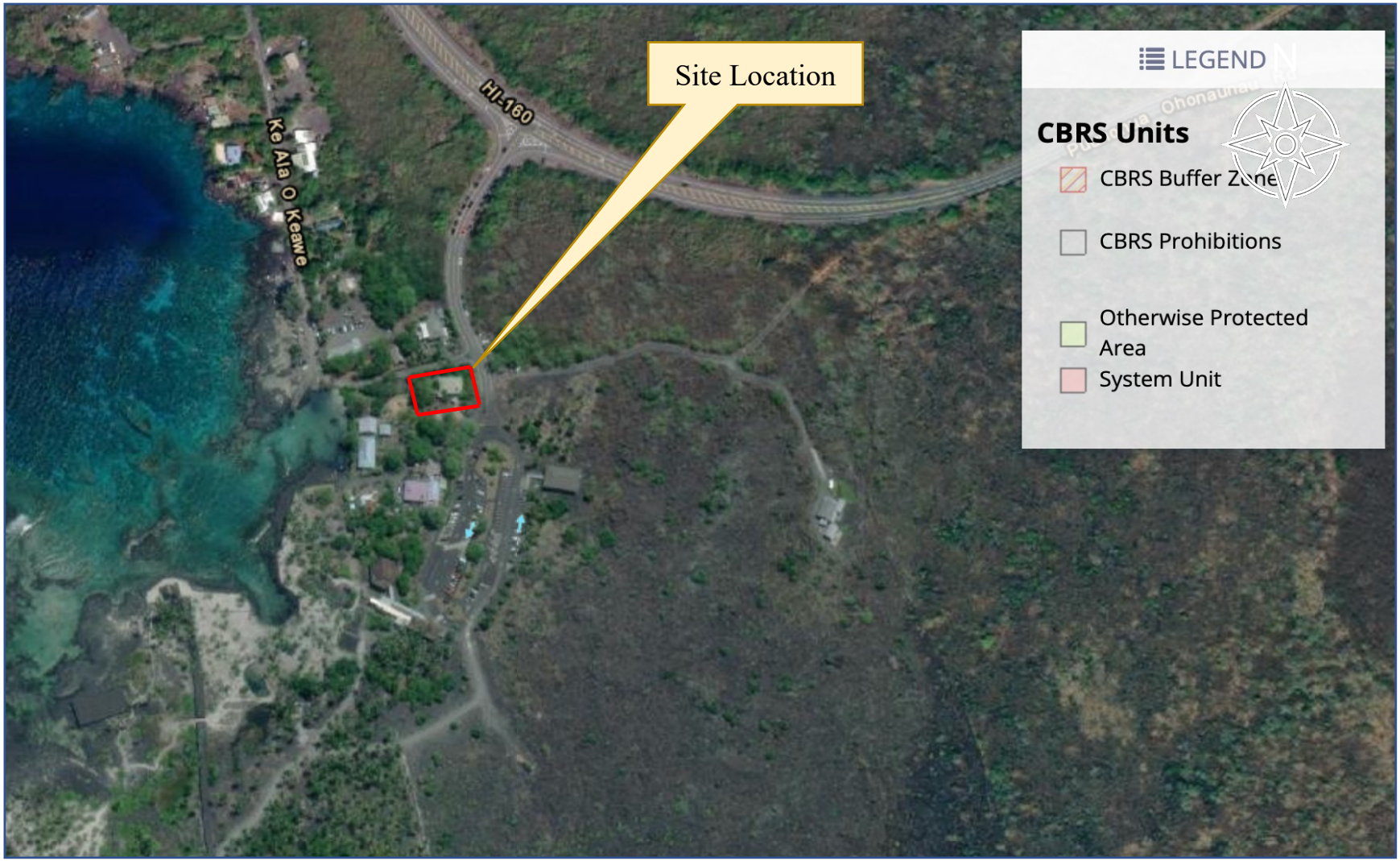
There are no airports or airfields in the vicinity of the subject site.



Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE: Airports and Airfields EXHIBIT NUMBER: 1

Exhibit 2: Coastal Barrier Resources

The site is not located within a coastal zone as noted by the Coastal Barrier Mapper



Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE: Coastal Barrier Resources EXHIBIT NUMBER: 2

Exhibit 3: Flood Insurance

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

EXHIBIT TITLE: Flood Insurance Rate Map

FIGURE NUMBER: 3

Exhibit 4: Clean Air

State of Hawaii
Annual Summary
2017
Air Quality Data

Bruce S. Anderson, Ph.D.
Director of Health

David Y. Ige
Governor of Hawaii

State of Hawaii
Department of Health
March 2020

2017
Hawaii Air Quality Data

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Section 1
INTRODUCTION

The Department of Health, Clean Air Branch, monitors the ambient air in the State of Hawaii for various gaseous and particulate air pollutants. The U. S. Environmental Protection Agency (EPA) has set national ambient air quality standards (NAAQS) for six criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone, and particulate matter (PM_{10} and $PM_{2.5}$). Hawaii has also established a state ambient air standard for hydrogen sulfide. The primary purpose of the statewide monitoring network is to measure ambient air concentrations of these pollutants and ensure that these air quality standards are met. The stations are maintained and the data are collected by the Air Surveillance and Analysis Section of the State Laboratories Division.

In addition to monitoring the ambient air for criteria pollutants, the State of Hawaii also participates in the NCore multi pollutant monitoring network; the NCore station in Hawaii is located at the Kapolei monitoring station. The NCore network addresses the following objectives:

- Timely reporting of data to public by supporting AIRNow, air quality forecasting, and other public reporting mechanisms;
- Support for development of emission strategies through air quality model evaluation and other observational methods;
- Accountability of emission strategy progress through tracking long-term trends of criteria and non-criteria pollutants and their precursors;
- Support for long-term health assessments that contribute to ongoing reviews of the NAAQS;
- Compliance through establishing nonattainment/attainment areas through comparison with the NAAQS;
- Support to scientific studies ranging across technological, health, and atmospheric process disciplines;
- Support to ecosystem assessments recognizing that national air quality networks benefit ecosystem assessments and, in turn, benefit from data specifically designed to address ecosystem analyses; and
- $PM_{2.5}$ speciation monitoring that EPA determined to be essential for establishing a relationship between particle concentrations and adverse health effects and would provide valuable information in characterizing aerosols, determining the effectiveness of control strategies, and understanding the effects of particle pollution on atmospheric and regional haze.

Air pollution is caused by many different man-made and natural sources. There are industrial sources of pollution, such as power plants and refineries; mobile sources, such as cars, trucks, and buses; agricultural sources, such as agricultural burning; and natural sources, such as windblown dust and volcanic activity. In 2017, for the most part, the state maintained 14 air monitoring stations on 4 islands. Most commercial, industrial, and transportation activities and their associated air quality effects occur on Oahu, where 4 of

the stations are located. The monitoring stations on Maui are mainly to measure the air quality impacts from agricultural activities. The majority of stations are located on the island of Hawaii to measure air quality impacts from the volcano and geothermal energy production. The monitoring station on Kauai is mainly to measure the air quality impacts from cruise ships. The state's ambient air monitoring network is reviewed annually and relocations, additions and/or discontinuations can occur in the future as the need arises.

This report summarizes the validated air pollutant data collected at the 14 monitoring stations during calendar year 2017. Tabular summaries are provided which compare the measured concentrations of criteria pollutants with federal ambient air quality standards and of hydrogen sulfide with the state standard. The 2017 speciation data is also included in this report. Trend summaries of criteria pollutants parameters are shown graphically.

The Department of Health has a web site that displays near real-time air quality data updated throughout the day from the air monitoring stations. The data has not been reviewed for quality assurance and is subject to change but provides the public with viewing access to current air pollutant and meteorological information. To view this data online, go to http://health.hawaii.gov/cab and link to "Hawaii Ambient Air Quality Data."

Additionally, because emissions from the Kilauea volcano are affecting communities on the island of Hawaii on a daily basis, the Department of Health has a website dedicated to displaying short term SO_2 data from stations located on the island. It provides near real-time 15-minute SO_2 averages and advisory level guidance to help individuals protect themselves against possible health effects. To view this data online, go to www.hiso2index.info

To view this entire book as well as books from 2015 and 2016 online, go to:
http://health.hawaii.gov/cab and link to "Hawaii Air Quality Data Book."

Questions or comments regarding data in this report and other air quality information should be addressed to:

Clean Air Branch
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Phone: (808)586-4200
Fax: (808)586-4359

The Department of Health provides access to its programs and activities without regard to race, color, national origin (including language), age, sex, religion, or disability. Write our Affirmative Action Officer at P.O. Box 3378, Honolulu, Hawaii 96801-3378, or call (808)586-4616 (voice) within 180 days of a problem.

Section 2
DEFINITIONS

98th Percentile Value	The $PM_{2.5}$ 24-hour average or the maximum daily 1-hour NO_2 average in the year below which 98% of all values fall.
99th Percentile Value	The maximum daily 1-hour SO_2 value in the year below which 99% of all values fall.
Ambient Air	The general outdoor atmosphere, external to buildings, to which the general public has access.
Ambient Air Quality Standard	A limit in the quantity and exposure to pollutants dispersed or suspended in the ambient air. Primary standards are set to protect public health, including sensitive populations such as asthmatics, children, and the elderly. Secondary standards are set to protect public welfare including protection against visibility degradation, and damage to animals, crops, vegetation and buildings.
Carbon Monoxide	Carbon monoxide (CO) is a colorless, odorless, tasteless gas under atmospheric conditions. It is produced by the incomplete combustion of carbon fuels with the majority of emissions coming from transportation sources.
CFR	Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal government. Title 40 is the Protection of the Environment.
Collocated	This is a procedure required for a certain percentage of PM_{10} and $PM_{2.5}$ samplers in the monitoring network. Collocated samplers determine precision or variation in the PM_{10} or $PM_{2.5}$ concentration measurements of identical samplers run in the same location under the same sampling conditions.
Criteria Pollutants	These are the six pollutants for which the EPA has established national air quality standards. The pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead and particulate matter (PM_{10} and $PM_{2.5}$).
EPA	The U. S. Environmental Protection Agency; established to protect human health and the natural environment.

Hydrogen Sulfide	Hydrogen sulfide (H_2S) is a toxic, colorless gas with a characteristic "rotten egg" odor detectable at very low levels. It occurs naturally during the decomposition of organic matter, near geothermal sources and is also produced during certain industrial processes, including wastewater treatment facilities.
Micron	One micron is one millionth of a meter or approximately 1/25,000 of an inch.
$\mu g/m^3$	Micrograms per cubic meter. This is the measurement of air quality expressed as mass per unit volume.
NAAQS	National Ambient Air Quality Standards. These are pollutant standards that the EPA has established to protect public health and welfare. NAAQS have been set for carbon monoxide, nitrogen dioxide, PM_{10}, $PM_{2.5}$, ozone, sulfur dioxide, and lead. These are commonly referred to as criteria pollutants.
NCore	A multi-pollutant network that integrates several advanced measurement systems for particles, pollutant gases and meteorology. Most NCore stations have been operating since the formal start of the network on January 1, 2011, including Hawaii's.
Nitrogen Dioxide	Nitrogen dioxide (NO_2) is a brownish, highly corrosive gas with a pungent odor. It is formed in the atmosphere from emissions of nitrogen oxides (NO_x). Sources of nitrogen oxides include electric utilities, industrial boilers, motor vehicle exhaust and combustion of fossil fuels. NO_2 is also a component in the atmospheric reaction that produces ground-level ozone.
Ozone	Ozone (O_3) is the main constituent in photochemical air pollution. It is formed in the atmosphere by a chemical reaction of nitrogen oxides (NO_x) and volatile organic compounds (VOCs) in the presence of sunlight. In the upper atmosphere, O_3 shields the earth from harmful ultraviolet radiation; however, at ground level, it can cause harmful effects in humans and plants.
Particulate Matter	This refers to any solid or liquid matter dispersed in the air. Particulate matter (PM) includes dust, soot, smoke, and liquid droplets from sources such as factories, power plants, motor vehicles, construction, agricultural activities, and fires.

PM_{10}	Particulate matter that is 10 microns or less in aerodynamic diameter. These are considered "coarse" particles, generally from sources such as road and windblown dust, and crushing and grinding operations.
$PM_{2.5}$	Particulate matter that is 2.5 microns or less in aerodynamic diameter. Considered "fine" particles, these are generally a result of fuel combustion such as from motor vehicles, utility generation and industrial facilities. Fine particles can also be formed when gases, such as sulfur dioxide and nitrogen dioxide, are chemically transformed into particles.
ppm	Parts per million is one particle in 1,000,000 other particles. It is approximately one drop in 13 gallons.
SLAMS	State and Local Air Monitoring Stations. The Clean Air Act requires that every state establish a network of air monitoring stations for criteria pollutants.
SPM	Special Purpose Monitoring stations. These are stations established to provide data for special studies in support of air program interests and activities. SPM stations supplement the SLAMS network as special circumstances require and adequate resources permit.
Sulfur Dioxide	Sulfur dioxide (SO_2) is a colorless gas that easily combines with water vapor forming sulfuric acid. Emissions of sulfur dioxide are largely from sources that burn fossil fuels such as coal and oil. In Hawaii, another major source of sulfur dioxide emissions is from the eruption of Kilauea Volcano on the Big Island.
Vog	Vog is a local term used to express volcanic smog. Vog occurs when volcanic gas and particles combine with air and sunlight to produce atmospheric haze.

Table 2-1 **State and Federal Ambient Air Quality Standards**

Sources: State standards HAR §11-59; Federal standards 40 CFR Part 50

Air Pollutant	Averaging Time	Standards		
		Hawaii State Standard	Federal Primary Standard [a]	Federal Secondary Standard [b]
Carbon Monoxide (CO)	1-hour 8-hour	9 ppm 4.4 ppm	35 ppm 9 ppm	None
Nitrogen Dioxide (NO_2)	1-hour Annual	--- 0.04 ppm	0.100 ppm 0.053 ppm	--- 0.053 ppm
PM_{10}	24-hour Annual [c]	150 µg/m^3 50 µg/m^3	150 µg/m^3 ---	--- ---
$PM_{2.5}$	24-hour Annual	---	35 µg/m^3 12 µg/m^3	35 µg/m^3 15 µg/m^3
Ozone (O_3)	8-hour	0.08 ppm	0.070 ppm	0.070 ppm
Sulfur Dioxide (SO_2)	1-hour 3-hour 24-hour Annual	--- 0.5 ppm 0.14 ppm 0.03 ppm	0.075 ppm --- --- ---	--- 0.5 ppm --- ---
Lead (Pb)	Rolling 3-month	1.5 µg/m^3 [d]	0.15 µg/m^3	0.15 µg/m^3
Hydrogen Sulfide	1-hour	0.025 ppm	None	None

[a] ***Primary Standards*** set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children and the elderly.

[b] ***Secondary Standards*** set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

[c] Due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution, EPA revoked the annual PM_{10} standard effective December 17, 2006. However, the state still has an annual standard.

[d] The state standard is based on calendar quarter.

Compliance with the National Ambient Air Quality Standards

CO 1-hour: May not be exceeded more than once per year.

CO 8-hour: May not be exceeded more than once per year.

NO_2 1-hour: The 3-year average of the 98th percentile daily maximum 1-hour averages must not exceed the standard.

NO_2 Annual: Average of all 1-hour values in the year may not exceed the level of the standard.

PM_{10} 24-hour: Must not be exceeded more than one day per year, after compensating for days when monitoring did not occur (estimated number of exceedances).

$PM_{2.5}$ 24-hour: The 3-year average of the 98th percentile 24-hour concentrations must not exceed the level of the standard.

$PM_{2.5}$ Annual: The 3-year average of 24-hour values must not exceed the level of the standard.

Ozone 8-hour: The 3-year average of the fourth highest daily maximum value must not exceed the level of the standard.

SO_2 1-hour: The 3-year average of the 99th percentile daily maximum 1-hour averages must not exceed the standard.

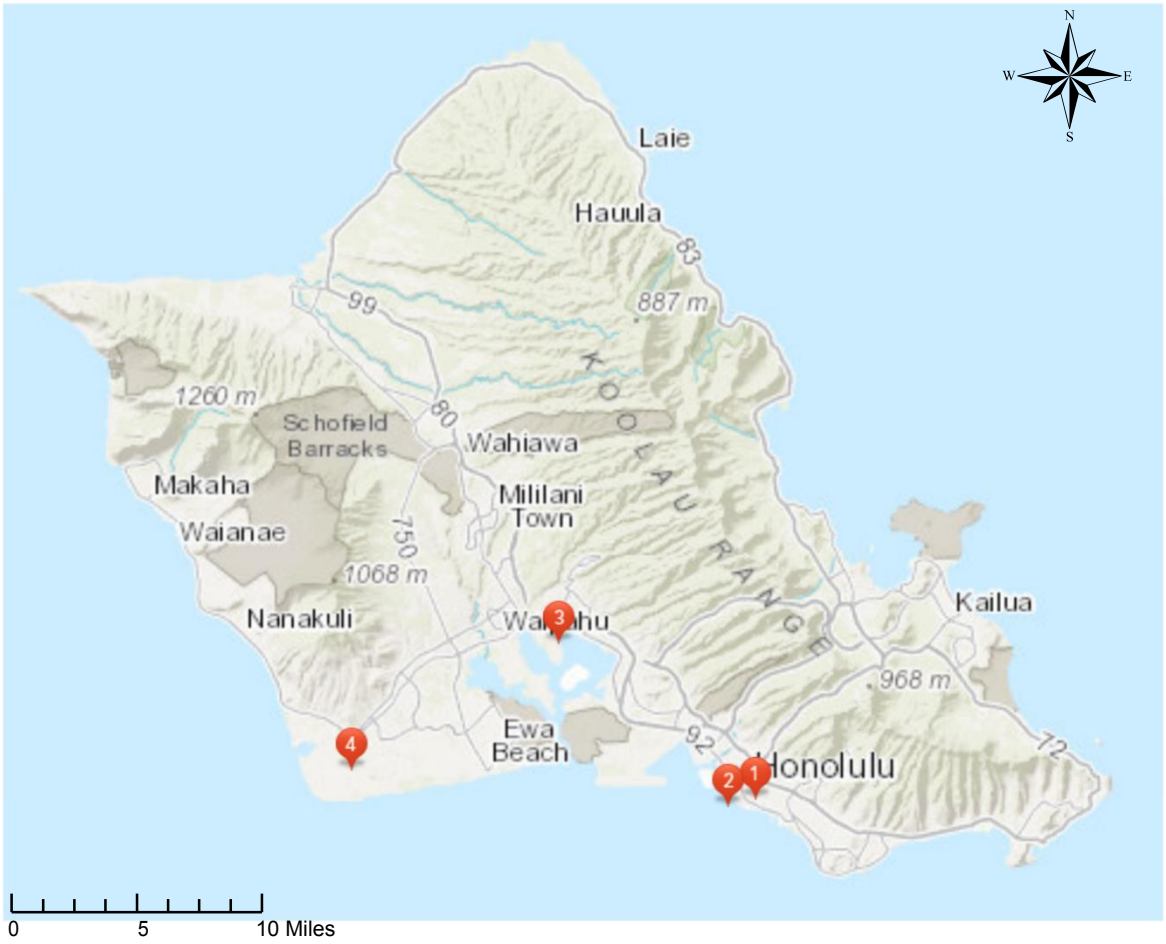
SO_2 3-hour: Not be exceeded more than once per year.

SO_2 Annual: Average of all 1-hour values in the year may not exceed the level of the standard.

Lead: Average of all 24-hour values in any rolling 3-month period may not exceed the level of the standard.

Section 3
SITE LOCATIONS AND DESCRIPTIONS

Figure 3-1: Island of Oahu – Air Monitoring Stations



Station	Name	Location	Pollutants/Parameters Monitored
1	Honolulu	1250 Punchbowl St.	CO, SO_2, $PM_{2.5}$, PM_{10}
2	Sand Island	1039 Sand Island Pkwy.	O_3, $PM_{2.5}$
3	Pearl City	860 4th St.	$PM_{2.5}$, PM_{10}
4	Kapolei	2052 Lauwiliwili St.	CO, SO_2, NO_2
	Kapolei NCore	2052 Lauwiliwili St.	CO $_{trace}$, $SO_{2\ trace}$, NO/NO_y, Pb, O_3, $PM_{2.5}$, $PM_{2.5}$ speciation, PM_{10}, $PM_{10-2.5}$, WS/WD

The following station descriptions include latitude and longitude in decimal degrees and altitude in meters above mean sea level.

Honolulu (DH)

Location:	1250 Punchbowl St., Honolulu
Latitude:	21.30758
Longitude:	-157.85542
Altitude:	20 m
Parameters:	SO_2, CO, PM_{10}, $PM_{2.5}$
Established:	February 1971

Brief Description:

Located in downtown Honolulu on the roof of the Department of Health building, across from the Queen's Medical Center, in a busy commercial, business and government district.

Kapolei (KA)

Location:	2052 Lauwiliwili St., Kapolei
Latitude:	21.32374
Longitude:	-158.08861
Altitude:	17.9 m
Parameters:	SO_2, CO, NO_2, PM_{10}, $PM_{2.5}$, $PM_{2.5}$ speciation, NCore
Established:	July 2002

Brief Description:

Located in Kapolei Business Park, southeast of Kapolei Fire Station, next to a drainage canal that separates the park from Barber's Point. Approximately 1.5 miles from Malakole Street in Campbell Industrial Park.

Pearl City (PC)

Location:	860 4th St., Pearl City
Latitude:	21.39283
Longitude:	-157.96913
Altitude:	23.1 m
Parameters:	PM_{10}, $PM_{2.5}$
Established:	May 1979

Brief Description:

Located on the roof of the Leeward Health Center in a commercial, residential and light industrial area approximately 1.5 miles northwest of the Waiau power plant and near the Pearl Harbor Naval Complex.

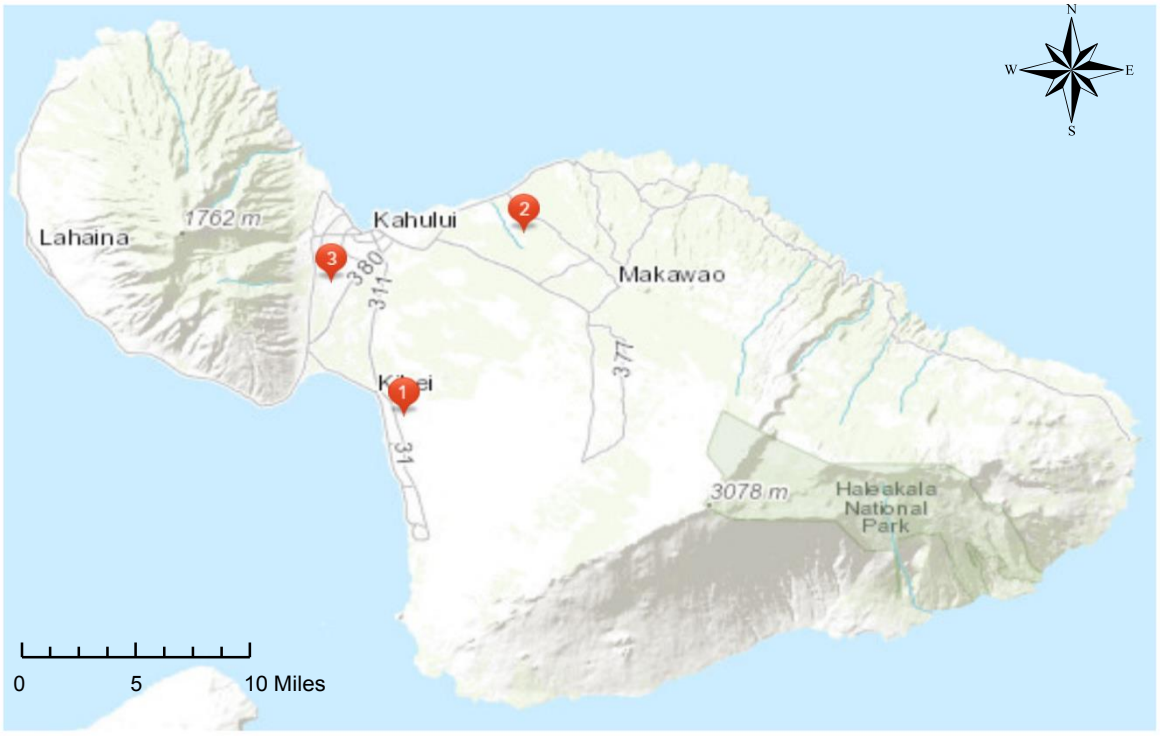
Sand Island (SI)

Location:	1039 Sand Island Pkwy., Honolulu
Latitude:	21.30384
Longitude:	-157.87117
Altitude:	5.3 m
Parameters:	O_3, $PM_{2.5}$
Established:	February 1981

Brief Description:

Located in a light industrial, commercial and recreational area approximately two miles downwind of downtown Honolulu near the entrance to the Sand Island State Recreation Area.

Figure 3-2: Island of Maui – Air Monitoring Stations



Station	Name	Location	Pollutants Monitored
1	Kihei	Hale Piilani Park	$PM_{2.5}$
2	Paia	TMK (2)-2-5-005-05	$PM_{2.5}$
3	Kahului	TMK (2)-3-8-007-153	$PM_{2.5}$

Kihei (KH)

Location:	Hale Piilani Park, Kihei
Latitude:	20.780997
Longitude:	-156.44637
Altitude:	46.5 m
Parameters:	$PM_{2.5}$
Established:	February 1999

Brief Description:

Located in a residential community park, next to agricultural land.

Paia (PI)

Location:	TMK (2)-2-5-005-05, Paia
Latitude:	20.902031
Longitude:	-156.370344
Altitude:	80.8 m
Parameters:	$PM_{2.5}$
Established:	March 2014

Brief Description:

Located within a fenced area that contains a County of Maui water supply tank. The area is surrounded by residential and agricultural land with unharvested sugar cane fields north of the monitor (Station closed on March 31, 2017).

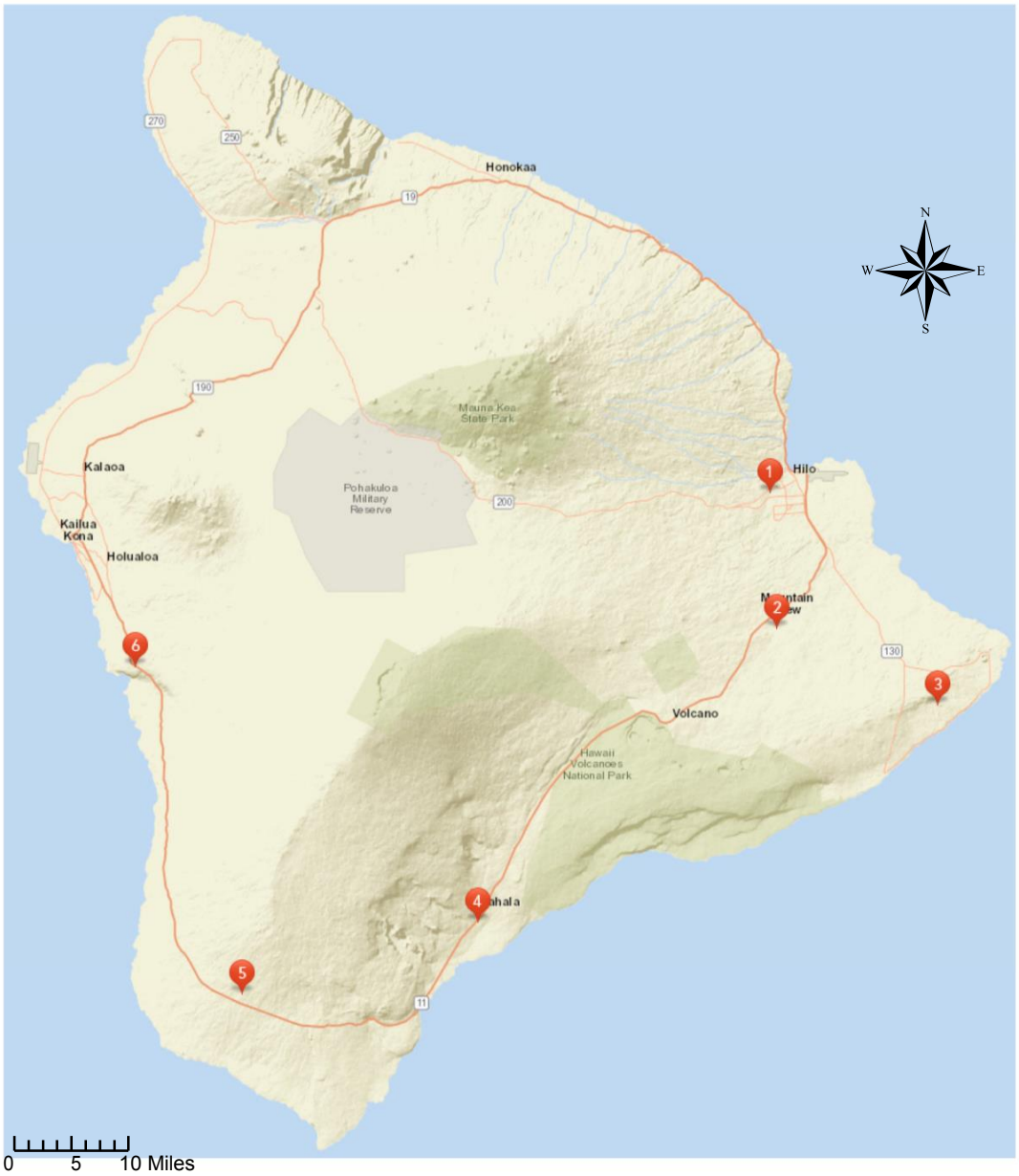
Kahului (KL)

Location:	TMK (2)-3—8-007-153, Kahului
Latitude:	20.869444
Longitude:	-156.492417
Altitude:	55.5 m
Parameters:	$PM_{2.5}$
Established:	January 2016

Brief Description:

Located within a fenced area off of Mauilani Parkway, TMK 2-3-8-007-153. The area is surrounded primarily by residential land.

Figure 3-3: Island of Hawaii – Air Monitoring Stations



Station	Name	Location	Pollutants Monitored
1	Hilo	1099 Waianuenue Ave.	SO_2, $PM_{2.5}$
2	Mountain View	18-1235 Volcano Rd.	SO_2, $PM_{2.5}$
3	Puna E	TMK (3)-1-3-28-37 (Leilani)	H_2S, SO_2
4	Pahala	96-3150 Pikake St.	SO_2, $PM_{2.5}$
5	Ocean View	92-6091 Orchid Mauka Circ.	SO_2, $PM_{2.5}$
6	Kona	81-1043 Konawaena School Rd.	SO_2, $PM_{2.5}$

Hilo (HL)

Location:	1099 Waianuenue Ave., Hilo
Latitude:	19.71756
Longitude:	-155.11053
Altitude:	136.8 m
Parameters:	SO_2, $PM_{2.5}$
Established:	January 1997

Brief Description:

Located near the Hilo Medical Center, this station was established to monitor vog during “Kona” or southerly wind conditions.

Kona (KN)

Location:	81-1043 Konawaena School Rd., Kona
Latitude:	19.50978
Longitude:	-155.91342
Altitude:	517.2 m
Parameters:	SO_2, $PM_{2.5}$
Established:	September 2005

Brief Description:

Located on the upper campus of Konawaena High School, this station monitors for vog on the west side of the island of Hawaii.

Mt. View (MV)

Location:	18-1235 Volcano Rd., Mt. View
Latitude:	19.57002
Longitude:	-155.08046
Altitude:	436.5 m
Parameters:	SO_2, $PM_{2.5}$
Established:	December 2010

Brief Description:

Located on the grounds of the Mt. View Elementary School, this station was established to monitor vog during southerly wind conditions.

Ocean View (OV)

Location:	92-6091 Orchid Mauka Circle, Ocean View
Latitude:	19.11756
Longitude:	-155.77814
Altitude:	862.6 m
Parameters:	SO_2, $PM_{2.5}$
Established:	April 2010

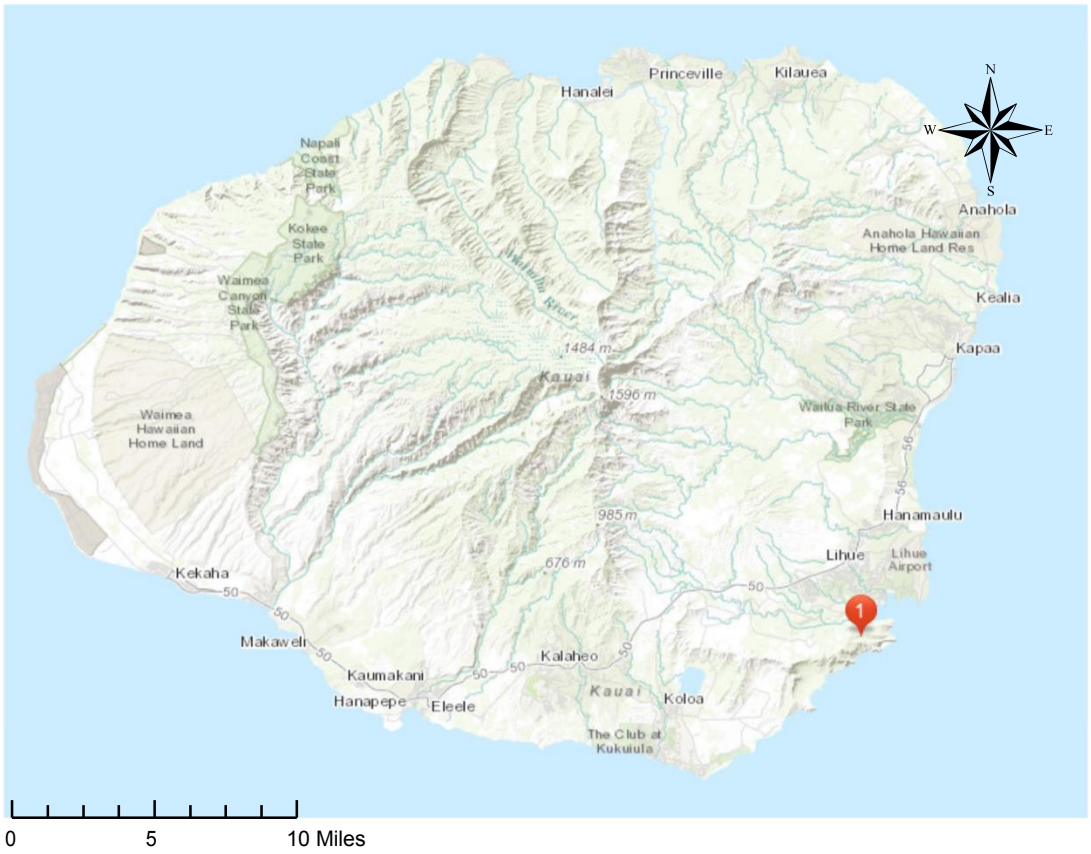
Brief Description:

This station is located in Hawaii Ocean View Estates at the Ocean View fire station and monitors for volcanic emissions.

Pahala (PA)		
	**Location:**	96-3150 Pikake St., Pahala
	Latitude:	19.2039
	Longitude:	-155.48018
	Altitude:	320 m
	Parameters:	SO_2, $PM_{2.5}$
	Established:	August 2007
	Brief Description:	
	The station is on the grounds of the Kau High and Pahala Elementary School, monitoring for volcanic emissions.	

Puna E (PE)		
	**Location:**	13-763 Leilani Ave., Pahoa
	Latitude:	19.46399
	Longitude:	-154.89871
	Altitude:	207.9 m
	Parameters:	SO_2, H_2S
	Established:	March 1991
	Brief Description:	
	Located in the Leilani Estates residential subdivision, this station monitors for emissions from the geothermal energy facility approximately 1 mile to the northeast. The station also monitored for SO_2 emissions from the volcano during southwesterly wind conditions, until January 25, 2017, when SO_2 monitoring was discontinued.	

Figure 3-4: Island of Kauai – Air Monitoring Station



Station	Name	Location	Pollutants Monitored
1	Niumalu	2342 Hulemalu Road	SO_2, NO_2, $PM_{2.5}$

Niumalu (NI)		
	**Location:**	2342 Hulemalu Road, Lihue
	Latitude:	21.9495
	Longitude:	-159.365
	Altitude:	11 m
	Parameters:	SO_2, NO_2, $PM_{2.5}$
	Established:	April 2011
	Brief Description:	
	Located in the Niumalu residential subdivision, this station monitors for emissions from the cruise ships in Nawiliwili Harbor approximately 1.0 mile upwind.	

Table 3-1 **State of Hawaii Ambient Air Monitoring Network**

	Pollutants Monitored and Station Type									
SITE	**PM_{10}**	**$PM_{2.5}$**	**CO**	**O_3**	**SO_2**	**NO_2**	**H_2S**	**Lead**	**MONITORING OBJECTIVE**	**LOCATION SETTING**
OAHU										
Honolulu	S	S	S	-	S	-	-	-	Population Exposure	Urban and Center City
Kapolei [1]	S	S,C	S	S	S	S	-	S,C	Population Exposure	Suburban
Pearl City	S	S	-	-	-	-	-	-	Population Exposure	Urban and Center City
Sand Island	-	S	-	S	-	-	-	-	Maximum Concentration (O_3) Transport ($PM_{2.5}$)	Urban and Center City
MAUI										
Kihei	-	S	-	-	-	-	-	-	Source Impact (agricultural burning)	Suburban
Paia [2]	-	SPM	-	-	-	-	-	-	Source Impact (agricultural burning)	Neighborhood
Kahului		SPM	-	-	-	-	-	-	Source Impact (agricultural burning)	Neighborhood
HAWAII										
Hilo	-	SPM	-	-	S	-	-	-	Population Exposure	Suburban
Kona	-	SPM	-	-	S	-	-	-	Population Exposure (SO_2)/ Maximum concentration ($PM_{2.5}$)	Suburban
Mountain View	-	SPM	-	-	SPM	-	-	-	Source Impact	Suburban
Ocean View	-	SPM	-	-	SPM	-	-	-	Welfare Impact (SO_2)/ Source Impact ($PM_{2.5}$)	Rural
Pahala	-	SPM	-	-	SPM	-	-	-	Maximum concentration (SO_2)/ Source Impact ($PM_{2.5}$)	Rural
Puna E	-	-	-	-	SPM [3]	-	SPM	-	Source Impact (geothermal and volcano)	Suburban
KAUAI										
Niumalu	-	SPM		-	SPM	SPM	-	-	Source Impact (cruise ships)	Suburban

C = Collocated Site
S = (SLAMS) State and Local Air Monitoring Station
SPM = Special Purpose Monitoring Station (for monitoring vog, geothermal energy production and cruise ships)
[1]Includes NCore station.
[2]Paia was discontinued March 31, 2017.
[3]Monitoring for SO_2 was discontinued January 25, 2017.

Table 3-2 **Sampling Equipment at Each Monitoring Station**

Monitoring Station	PM_{10} Continuous Ambient Particulate Monitor	$PM_{2.5}$ Manual Particulate Monitor	$PM_{2.5}$ Continuous Monitor	CO Continuous Gas Filter Correlation Analyzer	SO_2 Continuous Pulsed Fluorescence Ambient Air Analyzer	O_3 Continuous UV Photometric Analyzer	NO_2 Continuous Chemiluminescence Analyzer	H_2S Continuous Pulsed Fluorescence Ambient Air Analyzer	Lead 1 in 6 Days Total Suspended Particulate Monitor
OAHU									
Honolulu	■		■	■	■				
Kapolei	■	■	■	■	■	■	■		■
Pearl City	■		■						
Sand Island			■			■			
MAUI									
Kihei			■						
Paia			■						
Kahului			■						
HAWAII									
Hilo			■		■				
Kona			■		■				
Mt. View			■		■				
Ocean View			■		■				
Pahala			■		■				
Puna E					■			■	
KAUAI									
Niumalu			■		■		■		

Section 4
2017 AIR QUALITY DATA

To protect the state's air quality from degradation, the Department of Health's Clean Air Branch is responsible for regulating and monitoring pollution sources to ensure that the levels of criteria pollutants remain well below the state and federal ambient air quality standards. Data collected from the ambient air network is validated by the Air Surveillance and Analysis Section to ensure that the reported data is of good quality and meets all quality control and assurance requirements.

The monitoring stations in communities near the volcano record higher levels of SO_2 and $PM_{2.5}$, with regular exceedances of the NAAQS for SO_2 and occasional exceedances of the NAAQS for $PM_{2.5}$. The EPA considers the volcano a natural, uncontrollable event and therefore the state is requesting exclusion of these NAAQS exceedances from attainment/non-attainment determination.

Excluding the exceedances due to the volcano, in 2017 the State of Hawaii was in attainment of all NAAQS.

Explanation of Summary Tables 4-1 through 4-18:

- Summaries are by pollutant and averaging period, with the number of occurrences exceeding the NAAQS or, in Table 4-17, the number of exceedances of the state H_2S standard (there is no federal H_2S standard);
- The "Maximum" is the highest and second highest valid values recorded in the year for the averaging period. For $PM_{2.5}$, the maximum and 98^{th} percentile concentrations are provided and for O_3, the 4^{th} highest daily maximum value is also displayed;
- The "Annual Mean" is the arithmetic mean of all valid values recorded in the year;
- "Possible Periods" is the total number of possible sampling periods in the year for the averaging period;
- "Valid Periods" is the total number of acceptable sampling periods after data validation;
- "Percent Recovery" represents the amount of quality data reported;
- Attainment with the NAAQS is determined according to 40 CFR 50.

Explanation of Tables 4-19 through 4-29:

- For each pollutant and averaging period, the highest concentration for each month is presented;
- The month with the highest value recorded in the year for each site is highlighted.

Table 4-1. 2017 Summary of the 24-Hour PM_{10} Averages

	Maximum		Annual Mean	No. of 24-hour Averages Greater than 150 µg/m^3														
	1st High	2nd High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU																		
Honolulu	31	29	11.8	0	0	0	0	0	0	0	0	0	0	0	0	365	345	94.5
Kapolei	39	36	13.0	0	0	0	0	0	0	0	0	0	0	0	0	365	352	96.4
Pearl City	39	38	15.2	0	0	0	0	0	0	0	0	0	0	0	0	365	350	95.9

Table 4-2. Attainment Determination of the 24-Hour PM_{10} NAAQS

Station	Exceedances in 2015	Exceedances in 2016	Exceedances in 2017	Sites in violation of the NAAQS
Honolulu	0	0	0	0
Kapolei	0	0	0	0
Pearl City	0	0	0	0
Attainment: The standard not to be exceeded more than once per year on average over 3 years. **In 2017, Hawaii was in attainment with the 24-hour PM_{10} NAAQS.**				

Table 4-3. 2017 Summary of the 24-Hour $PM_{2.5}$ Averages: SLAMS Stations

	Maximum		Annual Mean	No. of 24-hour Averages Greater than 35 µg/m³														
	1st High	98th %	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU																		
Honolulu	16.0	9.8	3.0	0	0	0	0	0	0	0	0	0	0	0	0	365	355	97.3
Kapolei	15.5	9.6	4.3	0	0	0	0	0	0	0	0	0	0	0	0	365	312	85.5
Pearl City	18.2	14.1	4.4	0	0	0	0	0	0	0	0	0	0	0	0	365	358	98.1
Sand Island	16.1	10.0	3.0	0	0	0	0	0	0	0	0	0	0	0	0	365	354	97.0
MAUI																		
Kihei	29.1	11.3	4.1	0	0	0	0	0	0	0	0	0	0	0	0	365	349	95.6

Table 4-4. Attainment Determination of the 24-Hour $PM_{2.5}$ NAAQS: SLAMS Stations

Station	2015 98th value	2016 98th value	2017 98th value	3-Year Average	Sites in violation of the NAAQS
Honolulu	10	11	10	10	0
Kapolei	14	11[1]	10[1]	12	0
Pearl City	11	12	14	12	0
Sand Island	12	13	10	12	0
Kihei	13	12	11	12	0
Attainment: The 3-year average of the 98th percentile values must be less than or equal to 35 µg/m³. **In 2017, Hawaii was in attainment with the 24-hour $PM_{2.5}$ NAAQS.**					

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

Table 4-5. Attainment Determination of the Annual $PM_{2.5}$ NAAQS: SLAMS Stations

Station	2015 Ann. Avg.	2016 Ann. Avg.	2017 Ann. Avg.	3-Year Average	Sites in violation of the NAAQS
Honolulu	3.7	2.1	3.0	2.9	0
Kapolei	4.1	4.0[1]	4.3[1]	4.1	0
Pearl City	5.2	2.6	4.4	4.1	0
Sand Island	5.4	4.0	3.0	4.1	0
Kihei	4.7	3.7	4.1	4.2	0
Attainment: The 3-year average of annual mean values must be less than 15 µg/m³. **In 2017, Hawaii was in attainment with the annual $PM_{2.5}$ NAAQS.**					

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

Table 4-6. 2017 Summary of the 24-Hour $PM_{2.5}$ Averages: SPM Stations

	Maximum		Annual Mean	No. of 24-hour Averages Greater than 35 µg/m^3														
	1st High	98th%	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
HAWAII																		
Hilo	34.1	23.4	9.6	0	0	0	0	0	0	0	0	0	0	0	0	365	357	97.8
Kona	26.9	23.8	9.3	0	0	0	0	0	0	0	0	0	0	0	0	365	339	92.9
Mt. View[1]	15.2	10.9	2.5	-	-	0	0	0	0	0	0	0	0	0	0	365	253	69.3
Ocean View	25.5	23.5	10.9	0	0	0	0	0	0	0	0	0	0	0	0	365	358	98.1
Pahala	21.1	13.9	5.1	0	0	0	0	0	0	0	0	0	0	0	0	365	355	97.3
KAUAI																		
Niumalu	13.2	9.0	2.6	0	0	0	0	0	0	0	0	0	0	0	0	365	350	95.9
MAUI																		
Kahului	13.4	9.9	4.2	0	0	0	0	0	0	0	0	0	0	0	0	365	322	88.2
Paia[2]	14.2	13.8	4.6	0	0	0	-	-	-	-	-	-	-	-	-	90	90	100.0

The special purpose stations on Hawaii island were established to monitor ambient air concentrations of $PM_{2.5}$ from volcanic emissions. The special purpose station on Kauai was established to monitor emissions from cruise ships. The special purpose stations on Maui were established to monitor emissions from agricultural burning.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.
[2]Paia was closed March 31, 2017.

Table 4-7. 2017 Summary of the 8-Hour O_3 Averages

	Maximum			Annual Mean	No. of Daily Maximum 8-Hour Averages Greater than 0.070 ppm														
	1st High	2nd High	4th High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU																			
Sand Island	0.050	0.050	0.049	0.029	0	0	0	0	0	0	0	0	0	0	0	0	8755	8080	92.3
Kapolei	0.052	0.051	0.049	0.030	0	0	0	0	0	0	0	0	0	0	0	0	8755	7435	84.9

Table 4-8. Attainment Determination of the 8-Hour O_3 NAAQS

Station	2015 4th highest	2016 4th highest	2017 4th highest	3-Year Average	Site in violation of the NAAQS
Sand Island	0.049	0.048	0.049	0.049	0
Kapolei	0.049	0.048	0.049	0.049	0
Attainment: The 3-year average of the annual 4th highest daily maximum 8-hour average must be less than or equal to 0.070 ppm. **In 2017, Hawaii was in attainment with the 8-hour O_3 NAAQS.**					

Table 4-9. 2017 Summary of the 1-Hour and Annual NO_2 Averages

	Maximum 1-hr		Annual Mean	No. of Daily Maximum 1-Hour Averages Greater than 0.100 ppm														
	1st High	98th%	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU	**SLAMS stations**																	
Kapolei	0.041	0.033	0.004	0	0	0	0	0	0	0	0	0	0	0	0	8760	8250	94.2
KAUAI	**SPM Station**																	
Niumalu[1]	0.038	0.031	0.002	0	0	0	0	0	0	0	0	0	0	0	0	8760	5979	68.3[1]
Attainment of the annual NO_2 NAAQS: The annual mean shall not exceed 0.053 ppm. **In 2017, Hawaii was in attainment with the annual NO_2 NAAQS.**																		

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

Table 4-10. Attainment Determination of the 1-Hour NO2 NAAQS

Station	2015 98th value	2016 98th value	2017 98th value	3-Year Average	Site in violation of the NAAQS
Kapolei	0.022	0.029	0.033	0.028	0
Attainment: The 3-year average of the 98th percentile values must be less than or equal to 0.100 ppm. **In 2017, Hawaii was in attainment with the 1-hour NO_2 NAAQS.**					

4-11. 2017 Summary of the 1-Hour SO_2 Averages

	Maximum		Annual Mean	No. of 1-hour Averages Greater than 0.075 ppm														
	1st High	99th%	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU	**SLAMS Stations**																	
Honolulu	0.008	0.004	0.000	0	0	0	0	0	0	0	0	0	0	0	0	8760	8066	92.1
Kapolei	0.012	0.008	0.001	0	0	0	0	0	0	0	0	0	0	0	0	8760	8234	94.0
HAWAII	**SPM Stations (see NOTE)**																	
Hilo	0.668	0.359	0.005	6	3	2	2	1	0	0	1	1	2	0	1	8760	8068	92.1
Kona	0.146	0.041	0.004	1	0	0	0	0	0	0	0	0	0	0	0	8760	8580	97.9
Mt. View[1]	0.503	0.269	0.003	0	0	4	3	1	0	0	0	0	4	0	3	8760	7252	82.8
Ocean View	0.739	0.480	0.016	13	11	14	14	17	7	8	6	7	5	9	12	8760	8556	97.7
Pahala	0.858	0.674	0.035	25	22	15	15	23	20	23	19	17	15	17	18	8760	8416	96.1
Puna E[2]	0.012	0.012	0.003	0	-	-	-	-	-	-	-	-	-	-	-	600	586	97.7
KAUAI	**SPM Station**																	
Niumalu	0.003	0.002	0.001	0	0	0	0	0	0	0	0	0	0	0	0	8760	8164	93.2

Attainment: The 3-year average of the 99th percentile values must be less than or equal to 0.075 ppm. Effective June 2, 2010.
In 2017, Hawaii was in attainment with the 1-hour SO_2 NAAQS (SLAMS stations only).

NOTE: The SPM stations on Hawaii Island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Although Hilo and Kona stations are designated SLAMS, the values are still mostly attributed to volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the 1-hour NAAQS from attainment determinations. The SPM station on Kauai was established to monitor emissions from cruise ships.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.
[2]SO_2 monitoring for Puna E was discontinued January 25, 2017.

Table 4-12. Attainment Determination of the 1-Hour SO_2 NAAQS: SLAMS Stations

	2015 99th value	2016 99th value	2017 99th value	3-Year Average	Violation of the NAAQS
OAHU SLAMS stations					N= NO Y= YES
Honolulu	0.010	0.007	0.004	0.007	N
Kapolei	0.013	0.008	0.008	0.010	N
HAWAII SPM stations (SEE note)					
Hilo	0.236	0.313	0.359	0.303	Y
Kona	0.031	0.044[1]	0.041	0.039	N
Mt. View	0.276	0.251[1]	0.269	0.265	Y
Ocean View	0.382	0.532	0.480	0.465	Y
Pahala	0.496	0.558	0.674	0.576	Y
Puna E[2]	0.015	0.041	0.012[2]	0.023	N
KAUAI SPM station					
Niumalu	0.014	0.008[1]	0.002	0.008	N

Attainment: The 3-year average of the 99th percentile values must be less than or equal to 0.075 ppm. Effective June 2, 2010.
In 2017, Hawaii was in attainment with the 1-hour SO_2 NAAQS (SLAMS stations only).

NOTE: The SPM stations on Hawaii Island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Although Hilo and Kona stations are designated SLAMS, the values are still mostly attributed to volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the 1-hour NAAQS from attainment determinations. The SPM station on Kauai was established to monitor emissions from cruise ships.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

[2]SO_2 monitoring for Puna E was discontinued January 25, 2017.

Table 4-13. 2017 Summary of the 3-Hour SO_2 Averages

	Maximum		Annual Mean	No. of 3-hour Averages Greater than 0.5 ppm														
	1st High	2nd High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU	**SLAMS stations**																	
Honolulu	0.004	0.004	0.000	0	0	0	0	0	0	0	0	0	0	0	0	2920	2633	90.2
Kapolei	0.006	0.006	0.001	0	0	0	0	0	0	0	0	0	0	0	0	2920	2667	91.3
HAWAII	**SPM stations (see NOTE)**																	
Hilo	0.565	0.322	0.005	1	0	0	0	0	0	0	0	0	0	0	0	2920	2616	89.6
Kona	0.091	0.074	0.004	0	0	0	0	0	0	0	0	0	0	0	0	2920	2749	94.1
Mt. View[1]	0.329	0.174	0.004	0	0	0	0	0	0	0	0	0	0	0	0	2920	2318	79.4
Ocean View	0.563	0.367	0.016	0	1	0	0	0	0	0	0	0	0	0	0	2920	2741	93.9
Pahala	0.594	0.483	0.035	1	0	0	0	0	0	0	0	0	0	0	0	2920	2713	92.9
Puna E[2]	0.008	0.007	0.003	0	-	-	-	-	-	-	-	-	-	-	-	200	186	93.0
KAUAI	**SPM station**																	
Niumalu	0.003	0.002	0.001	0	0	0	0	0	0	0	0	0	0	0	0	2920	2678	91.7

Attainment: 3-hour values not to exceed 0.5 ppm more than once per year.
In 2017, Hawaii was in attainment with the 3-hour SO_2 NAAQS (SLAMS stations only).

NOTE: The SPM stations on Hawaii island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Although Hilo and Kona stations are designated SLAMS, the values are still mostly attributed to volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the 3-hour NAAQS from attainment determinations.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.
[2]SO_2 monitoring for Puna E was discontinued January 25, 2017.

Table 4-14. 2017 Summary of the 24-Hour and Annual SO_2 Averages

	Maximum		Annual Mean	No. of 24-hour Averages Greater than 0.140 ppm														
	1st High	2nd High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU	**SLAMS Stations**																	
Honolulu	0.002	0.002	0.000	0	0	0	0	0	0	0	0	0	0	0	0	365	339	92.9
Kapolei	0.003	0.003	0.001	0	0	0	0	0	0	0	0	0	0	0	0	365	353	96.7
HAWAII	**SPM Stations (see NOTE)**																	
Hilo	0.110	0.095	0.005	0	0	0	0	0	0	0	0	0	0	0	0	365	357	97.8
Kona	0.029	0.015	0.004	0	0	0	0	0	0	0	0	0	0	0	0	365	365	100.0
Mt. View[1]	0.080	0.053	0.003	0	0	0	0	0	0	0	0	0	0	0	0	365	306	83.8
Ocean View	0.136	0.101	0.016	0	0	0	0	0	0	0	0	0	0	0	0	365	365	100.0
Pahala	0.153	0.141	0.035	0	0	0	1	0	0	0	0	0	0	0	0	365	360	98.6
Puna E[2]	0.006	0.004	0.003	0	-	-	-	-	-	-	-	-	-	-	-	25	25	100.0
KAUAI	**SPM Station**																	
Niumalu	0.002	0.002	0.001	0	0	0	0	0	0	0	0	0	0	0	0	365	338	92.6

Attainment: 24-hour values not to exceed 0.14 ppm more than once per year.
In 2017, Hawaii was in attainment of the state 24-hour SO_2 standard (SLAMS stations only).

NOTE: The SPM stations on Hawaii island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Although Hilo and Kona stations are designated SLAMS, the values are still mostly attributed to volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the 24-hour NAAQS from attainment determinations.

Attainment: Annual average (from SLAMS stations only) not to exceed 0.03 ppm.
In 2017, Hawaii was in attainment of the state annual SO_2 standard.

NOTE: The SPM stations on Hawaii island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Although Hilo and Kona stations are designated SLAMS, the values are still mostly attributed to volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the annual NAAQS from attainment determinations.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.
[2]SO_2 monitoring for Puna E was discontinued January 25, 2017.

Table 4-15. 2017 Summary of the 1-Hour CO Averages

	Maximum		Annual Mean	No. of 1-hour Averages Greater than 35 ppm														
	1st High	2nd High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU	**SLAMS stations**																	
Honolulu	1.4	1.3	0.5	0	0	0	0	0	0	0	0	0	0	0	0	8760	8156	93.1
Kapolei	1.7	1.7	0.2	0	0	0	0	0	0	0	0	0	0	0	0	8760	8207	93.7

Attainment: 1-hour values not to exceed 35 ppm more than once per year.
In 2017, Hawaii was in attainment with the 1-hour CO NAAQS.

Table 4-16. 2017 Summary of the 8-Hour CO Averages

	Maximum		Annual Mean	No. of 8-hour Averages Greater than 9 ppm														
	1st High	2nd High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
OAHU	**SLAMS stations**																	
Honolulu	0.9	0.9	0.5	0	0	0	0	0	0	0	0	0	0	0	0	8755	7858	89.8
Kapolei	1.1	1.0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	8755	7968	91.0

Attainment: 8-hour values not to exceed 9 ppm more than once per year.
In 2017, Hawaii was in attainment with the 8-hour CO NAAQS.

Table 4-17. 2017 Summary of the 1-Hour H_2S Averages (State Standard)

	Maximum		Annual Mean	No. of 1-hour Averages Greater than 0.025 ppm														
	1st High	2nd High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Possible Periods	Valid Periods	Percent Recovery
HAWAII																		
Puna E	0.002	0.002	0.001	0	0	0	0	0	0	0	0	0	0	0	0	8264	8760	94.3

Attainment of the state standard: 1-hour values not to exceed 0.025 ppm.
In 2017, Hawaii was in attainment of the state 1-hour H_2S standard.

Table 4-18. 2017 Summary of the Rolling 3-Month Lead Averages

	Maximum		Annual Mean	No. of 3-Month Averages Greater than 0.15 µg/m^3														
				Rolling 3-Month period ending in the month of												Possible Periods	Valid Periods	Percent Recovery
	1st High	2nd High	All Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
HAWAII																		
Kapolei	0.036	0.002	0.001	0	0	0	0	0	0	0	0	0	0	0	0	61	57	93.4
Attainment: Maximum 3-month average concentration for a 3-year period must be less than or equal to 0.15 µg/m^3. Note: Sampling for lead conducted 1 in 6 days. Sampling began 1/1/2012.																		

Table 4-19. 2017 Monthly Maximum of 24-Hour PM_{10} Values (µg/m^3)

The month with the highest value in the year is highlighted *The state and federal 24-hr PM_{10} standard is 150 µg/m^3*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Honolulu	31	29	21	23	18	18	19	17	18	18	16	26
Kapolei	39	36	22	22	20	20	18	18	17	19	24	27
Pearl City	39	34	26	26	22	20	21	18	20	24	23	27

Table 4-20. 2017 Monthly Maximum of 24-Hour $PM_{2.5}$ Values ($\mu g/m^3$)

The month with the highest value in the year is highlighted *The federal 24-hr $PM_{2.5}$ standard is 35 $\mu g/m^3$*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SLAMS Stations												
Honolulu	10.2	16.0	15.7	9.0	6.1	5.1	4.6	4.9	3.8	14.4	10.7	8.9
Kapolei[1]	5.2	11.0	15.5	9.5	6.6	6.0	5.5	5.7	6.9	13.7	12.9	9.6
Pearl City	15.6	16.2	18.2	8.9	6.5	5.0	5.2	6.0	8.2	14.3	16.1	13.4
Sand Island	11.2	14.9	16.1	6.7	4.8	3.6	4.4	5.6	6.1	13.8	9.7	7.7
Kihei	26.2	15.8	12.1	7.1	9.0	29.1	10.1	5.1	6.4	10.9	11.3	10.1
SPM Stations												
Niumalu (cruise ships)	13.2	9.3	10.2	7.7	6.8	6.3	11.2	6.9	3.0	5.9	7.1	11.1
Hilo (volcano)	25.0	34.1	25.5	24.1	20.1	21.4	12.2	8.7	8.2	14.3	10.1	14.5
Kahului[1]	3.7	13.4	6.5	8.0	8.1	7.2	8.5	9.7	8.5	11.2	13.0	10.0
Kona (volcano)	26.9	26.2	20.0	22.2	16.2	12.2	8.3	10.5	10.2	10.1	11.8	13.1
Mt. View (volcano)[1]	-	-	4.7	11.1	6.6	6.2	5.7	1.9	5.3	13.0	11.5	15.2
Ocean View (volcano)	25.5	24.7	23.5	21.3	7.6	12.2	14.7	15.7	19.4	18.6	17.8	15.5
Pahala (volcano)	21.1	15.5	13.9	12.3	7.5	7.6	11.6	7.5	10.6	7.5	13.2	15.3
Paia (cane burning)[2]	13.8	14.2	13.5	-	-	-	-	-	-	-	-	-

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

[2]Paia was discontinued March 31, 2017.

Table 4-21. 2017 Monthly Maximum of 1-Hour NO_2 Values (ppm)

The month with the highest value in the year is highlighted *The federal 1-hour standard for NO_2 is 0.100 ppm*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Kapolei	0.041	0.038	0.028	0.027	0.032	0.017	0.014	0.017	0.024	0.030	0.026	0.030
Niumalu[1]	0.032	0.032	-	0.020	0.029	0.016	0.016	0.014	0.020	0.002	0.035	0.038

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

Table 4-22. 2017 Monthly Maximum of 1-Hour CO Values (ppm)

The month with the highest value in the year is highlighted *The federal 1-hr CO standard is 35 ppm, the state standard is 9ppm*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Honolulu	1.4	1.0	1.1	0.9	1.1	0.5	0.6	0.8	1.0	1.0	1.0	0.9
Kapolei	0.7	0.7	0.7	0.4	0.1	0.5	0.6	0.7	0.6	0.8	0.7	1.7

Table 4-23. 2017 Monthly Maximum of 8-Hour CO Values (ppm)

The month with the highest value in the year is highlighted *The federal 8-hr CO standard is 9 ppm, the state standard is 4.4 ppm*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Honolulu	0.9	0.7	0.8	0.8	0.9	0.4	0.6	0.7	0.7	0.7	0.6	0.6
Kapolei	0.5	0.4	0.4	0.3	-1.0	0.4	0.5	0.5	0.5	0.6	0.5	1.1

4-24. 2017 Monthly Maximum of 8-Hour O_3 Values (ppm)

The month with the highest value in the year is highlighted *The federal 8-hr O_3 standard is 0.070 ppm*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sand Island	0.047	0.050	0.042	0.050	0.044	0.037	0.029	0.030	0.034	0.045	0.046	0.046
Kapolei NCore	0.049	0.052	0.048	0.052	0.045	0.034	0.030	0.029	0.033	0.041	0.044	0.046

Table 4-25. 2017 Monthly Maximum of 1-Hour SO_2 Values (ppm)

The month with the highest value in the year is highlighted *The federal 1-hr SO_2 standard is 0.075 ppm (75 ppb)*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SLAMS Stations												
Honolulu	0.004	0.003	0.006	0.002	0.001	0.001	0.000	0.001	0.001	0.004	0.008	0.002
Kapolei	0.004	0.010	0.004	0.006	0.007	0.002	0.003	0.003	0.012	0.005	0.008	0.006
SPM Stations (see NOTE)												
Niumalu (cruise ships)	0.003	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.001	0.001	0.001
Hilo (volcano)	0.667	0.435	0.356	0.359	0.082	0.023	0.040	0.082	0.098	0.281	0.049	0.131
Kona (volcano)	0.146	0.041	0.015	0.026	0.014	0.017	0.021	0.018	0.029	0.024	0.048	0.033
Mt. View (volcano)[1]	-	0.041	0.464	0.503	0.304	0.002	0.012	0.028	0.060	0.190	0.057	0.126
Ocean View (volcano)	0.394	0.739	0.424	0.364	0.260	0.281	0.262	0.202	0.247	0.573	0.170	0.316
Pahala (volcano)	0.827	0.581	0.589	0.858	0.340	0.337	0.379	0.333	0.515	0.444	0.674	0.39
Puna E (volcano)[2]	0.0115	-	-	-	-	-	-	-	-	-	-	-

NOTE: The SPM stations on Hawaii Island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Although Hilo and Kona stations are designated SLAMS, the values are still mostly attributed to volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the 1-hour NAAQS from attainment determinations.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

[2]SO_2 monitoring for Puna E was discontinued January 25, 2017.

Table 4-26. 2017 Monthly Maximum of 3-Hour SO_2 Values (ppm)

The month with the highest value in the year is highlighted *The state and federal 3-hr SO_2 standard is 0.5 ppm*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SLAMS Stations												
Honolulu	0.003	0.002	0.004	0.001	0.001	0.001	0.000	0.001	0.001	0.003	0.004	0.002
Kapolei	0.003	0.005	0.003	0.005	0.003	0.002	0.002	0.003	0.006	0.004	0.006	0.004
SPM Stations (see NOTE)												
Niumalu (cruise ships)	0.003	0.002	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001
Hilo (volcano)	0.565	0.242	0.244	0.185	0.053	0.005	0.023	0.051	0.068	0.161	0.036	0.063
Kona (volcano)	0.091	0.026	0.012	0.022	0.011	0.014	0.018	0.015	0.022	0.022	0.040	0.031
Mt. View (volcano)[1]	-	0.030	0.329	0.174	0.127	0.001	0.007	0.008	0.042	0.107	0.034	0.092
Ocean View (volcano)	0.313	0.563	0.349	0.192	0.167	0.140	0.181	0.134	0.187	0.319	0.082	0.226
Pahala (volcano)	0.594	0.430	0.425	0.483	0.243	0.232	0.313	0.257	0.229	0.303	0.408	0.208
Puna E (volcano)[2]	0.008	-	-	-	-	-	-	-	-	-	-	-

NOTE: The SPM stations on Hawaii Island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the 3-hour NAAQS from attainment determinations.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

[2]SO_2 monitoring for Puna E was discontinued January 25, 2017.

Table 4-27. 2017 Monthly Maximum of 24-Hour SO_2 Values (ppm)

The month with the highest value in the year is highlighted *The state 24-hr SO_2 standard is 0.14 ppm*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SLAMS Stations												
Honolulu	0.002	0.001	0.002	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001
Kapolei	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.002	0.001
SPM Stations (see NOTE)												
Niumalu (cruise ships)	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
Hilo (volcano)	0.110	0.095	0.047	0.0477	0.011	0.004	0.008	0.014	0.020	0.032	0.009	0.020
Kona (volcano)	0.029	0.009	0.006	0.008	0.004	0.006	0.005	0.007	0.007	0.009	0.015	0.013
Mt. View (volcano)[1]	-	0.005	0.080	0.053	0.021	0.001	0.002	0.004	0.012	0.026	0.011	0.032
Ocean View (volcano)	0.096	0.136	0.101	0.051	0.040	0.043	0.0349	0.047	0.046	0.046	0.023	0.063
Pahala (volcano)	0.141	0.102	0.099	0.153	0.060	0.060	0.118	0.076	0.097	0.100	0.125	0.078
Puna E (volcano)[2]	0.006	-	-	-	-	-	-	-	-	-	-	-

NOTE: The SPM stations on Hawaii Island were established to monitor ambient air concentrations of SO_2 from volcanic emissions. Volcanic eruptions are considered natural events and therefore EPA may exclude the exceedances of the 24-hour NAAQS from attainment determinations.

[1]Does not meet summary criteria, <75% data recovery in one or more quarters.

[2]SO_2 monitoring for Puna E was discontinued January 25, 2017.

Table 4-28. 2017 Monthly Maximum of 1-Hour H_2S Values (ppm)

The month with the highest value in the year is highlighted *The state 1-hour H_2S standard is .025 ppm*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Puna E	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.002	0.002

Table 4-29. 2017 Monthly Maximum of Rolling 3-Month Lead Values (µg/m^3)

The month with the highest value in the year is highlighted *The federal rolling 3-month lead standard is 0.15 µg/m^3*

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Kapolei NCore (1 in 6 days)	0.036	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.002	0.001	0.000	0.000

Section 5
2017 $PM_{2.5}$ SPECIATION DATA

Atmospheric aerosols are solid or liquid particles suspended in air that come directly from a variety of sources (primary) or are formed by chemical reactions (secondary). Primary and secondary particles tend to have long lifetimes in the atmosphere and can travel long distances, up to hundreds or perhaps thousands of miles. Sources include dust from roads, construction, and agriculture; combustion particles from motor vehicles, electric utilities and agricultural burning; and particles from natural sources such as the ocean or volcano.

Most of the $PM_{2.5}$ is a combination of the following components: sulfates, nitrates, ammonium, elemental carbon, organic compounds, water and metals. The EPA selected target particulates of interest based on data use objectives, primary constituents of $PM_{2.5}$, and the capability and availability of current analytical methods.

The filter-based speciation sampler collects samples once every 3 days for analyses performed by an EPA contract laboratory. The speciation sampler is located at the Kapolei NCore monitoring station.

Table 5-1 lists the parameters measured, highest and second highest values recorded in the year, the annual arithmetic mean of all valid samples and the total number of samples collected in the year. Table 5-2 lists the analysis methods for each parameter.

With the exception of lead, there are no ambient air quality standards for the individual components of speciated $PM_{2.5}$.

For more information on EPA's speciation program, go to:
www.epa.gov/ttn/amtic/speciepg.html

Table 5-1. Annual Summary of $PM_{2.5}$ Speciation Data

Parameter	1st High (µg/m³)	2nd High (µg/m³)	Annual Mean (µg/m³)	No. of Samples	Percent Recovery
CARBON					
Organic Carbon	0.773	0.745	0.2332	101	83
Elemental Carbon	0.332	0.244	0.0559	101	83
METALS					
Aluminum	0.102	0.080	0.0100	107	88
Antimony	0.046	0.040	0.0049	107	88
Arsenic	0.007	0.007	0.0006	107	88
Barium	0.088	0.077	0.0056	107	88
Bromine	0.007	0.007	0.0018	107	88
Cadmium	0.022	0.019	0.0008	107	88
Calcium	0.281	0.131	0.0493	107	88
Cerium	0.102	0.083	0.0099	107	88
Cesium	0.052	0.049	0.0035	107	88
Chlorine	1.756	1.724	0.5291	107	88
Chromium	0.057	0.019	0.0017	107	88
Cobalt	0.003	0.003	0.0000	107	88
Copper	0.009	0.008	0.0027	107	88
Indium	0.024	0.022	-0.0004	107	88
Iron	0.185	0.107	0.0288	107	88
Lead	0.021	0.019	0.0010	107	88
Magnesium	0.215	0.199	0.0393	107	88
Manganese	0.004	0.004	0.0002	107	88
Nickel	0.021	0.019	0.0045	107	88
Phosphorus	0.005	0.004	0.0003	107	88
Potassium	0.205	0071	0.0342	107	88
Rubidium	0.009	0.009	0.0001	107	88
Selenium	0.007	0.006	0.0003	107	88
Silicon	0.159	0.141	0.0370	107	88
Silver	0.026	0.021	0.0016	107	88
Sodium	1.300	1.135	0.3884	107	88
Strontium	0.008	0.007	0.0010	107	88
Sulfur	2.848	2.344	0.3246	107	88
Tin	0.068	0.039	0.0043	107	88
Titanium	0.009	0.009	0.0025	107	88
Vanadium	0.024	0.019	0.0041	107	88
Zinc	0.011	0.006	0.0016	107	88
Zirconium	0.031	0.030	0.0013	107	88

Table 5-1 Continued

Parameter	1st High (µg/m3)	2nd High (µg/m3)	Annual Mean (µg/m3)	No. of Samples	Percent Recovery
IONS					
Ammonium Ion	1.50	1.25	0.087	107	88
Potassium Ion	0.08	0.05	0.012	107	88
Sodium Ion	1.89	1.40	0.397	107	88
Total Nitrate	0.36	0.34	0.133	107	88
Sulfate	7.94	7.24	0.943	107	88

Table 5-2. Speciation Collection and Analysis Methods

Parameter	Collection Method	Analysis Method
Carbon	URG 300N Quartz Filter	Thermal Optical Transmittance
Metals	Met-One SASS Teflon Filter	Energy Dispersive X-Ray Fluorescence
Ions	Met-One SASS Nylon Filter	Ion Chromatography

Section 6
AMBIENT AIR QUALITY TRENDS

The following graphs illustrate 5-year trends for PM_{10}, $PM_{2.5}$, SO_2, NO_2, O_3, and CO from 2013 to 2017 at all SLAMS stations monitoring for those pollutants.

Figures 6-1 and 6-2 are graphs of the PM_{10} annual and maximum 24-hour averages.

Figure 6-3 is the graph of the $PM_{2.5}$ annual averages. Attainment of the $PM_{2.5}$ 24-hour standard is based on the 98^{th} percentile value at each station, which is depicted in Figure 6-4.

Figures 6-5 and 6-6 are graphs of the SO_2 annual and maximum 24-hour averages.

Figure 6-7 and 6-8 shows the annual and maximum 1-hour averages of NO_2 compared to the federal NAAQS.

Attainment of the 8-hour ozone standard is achieved by averaging 3 years of the fourth highest daily maximum 8-hour average concentrations, which must not exceed 0.070 ppm (standard effective October 1, 2016). Figure 6-9 is a graph of the fourth highest daily maximum values recorded at the Sand Island and Kapolei (since 2011) ozone monitoring stations in the past five years.

The graphs for 1-hour and 8-hour carbon monoxide (figures 6-10 and 6-11, respectively) represent the maximum 1-hour or 8-hour values recorded in the year.

Criteria pollutant levels remain below state and federal ambient air quality standards at all SLAMS stations in the state.

Figure 6-1. PM_{10} Annual Average: 2013-2017

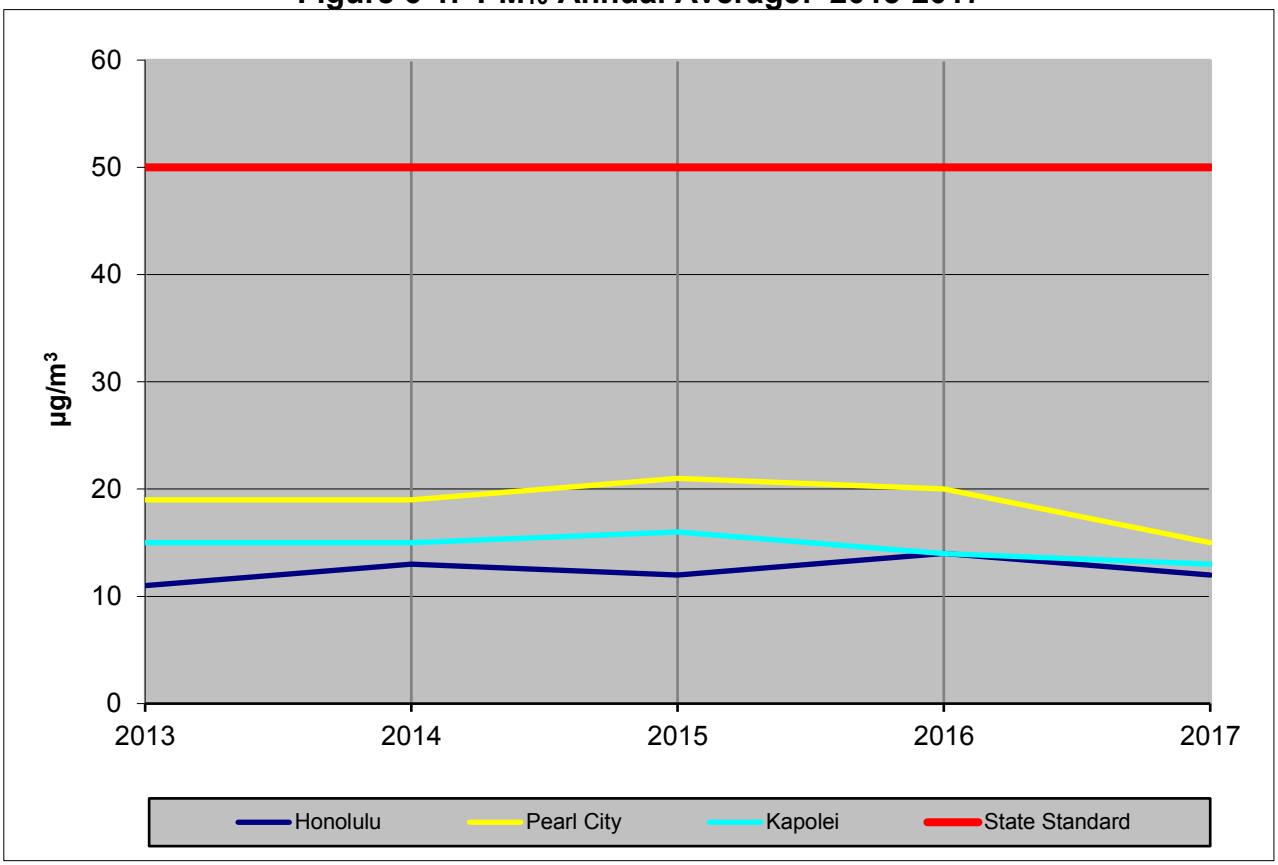


Figure 6-2. PM_{10} Maximum 24-Hour Average: 2013-2017

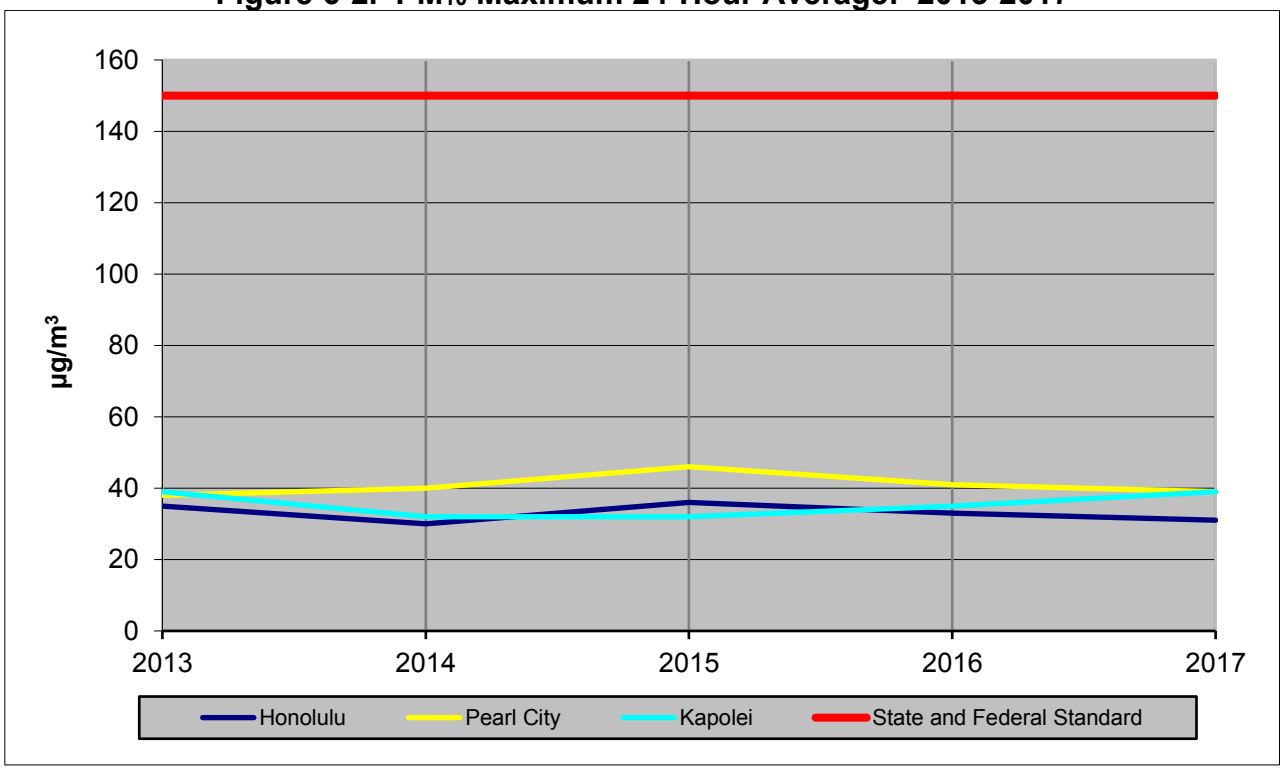


Figure 6-3. $PM_{2.5}$ Annual Average: 2013-2017

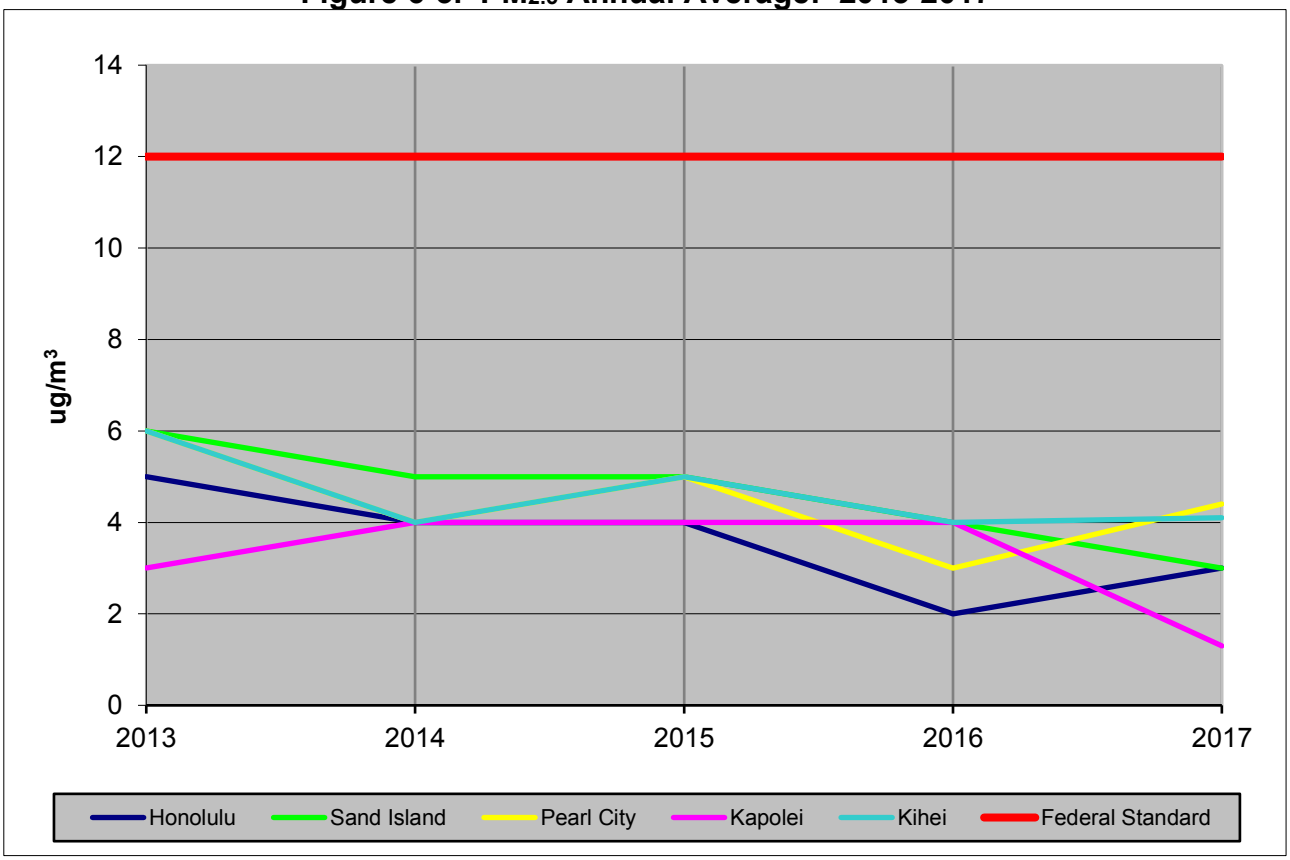


Figure 6-4. $PM_{2.5}$ 98th Percentile 24-Hour Average: 2013-2017

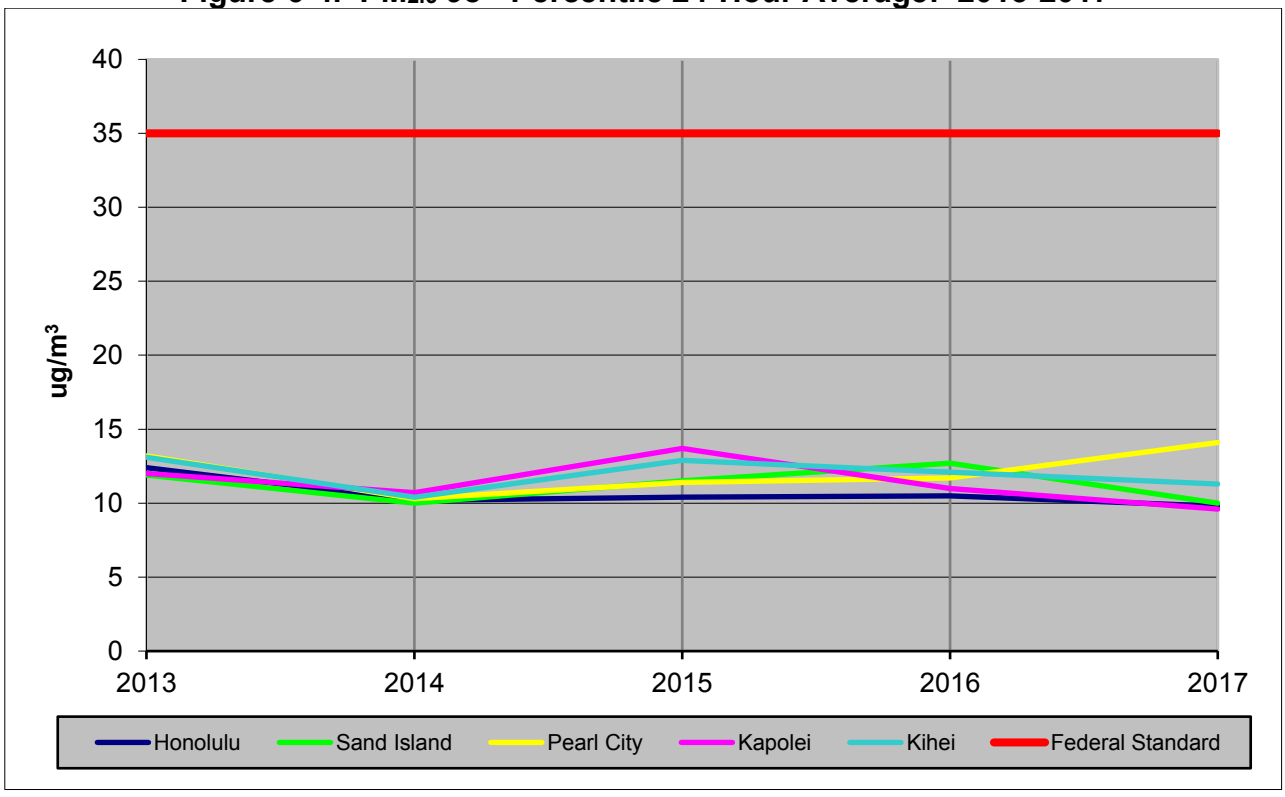


Figure 6-5. SO_2 Annual Average: 2013-2017

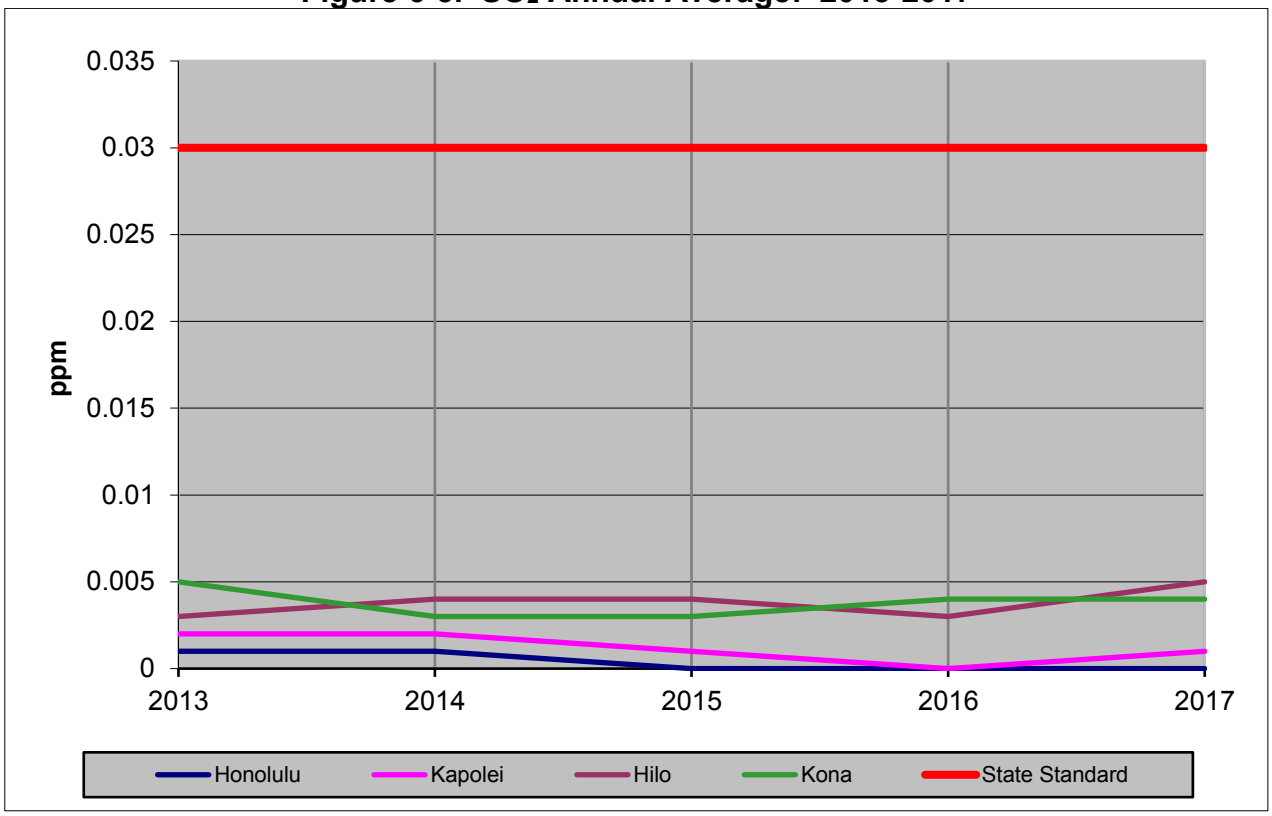


Figure 6-6. SO_2 Maximum 24-Hour Average: 2013-2017

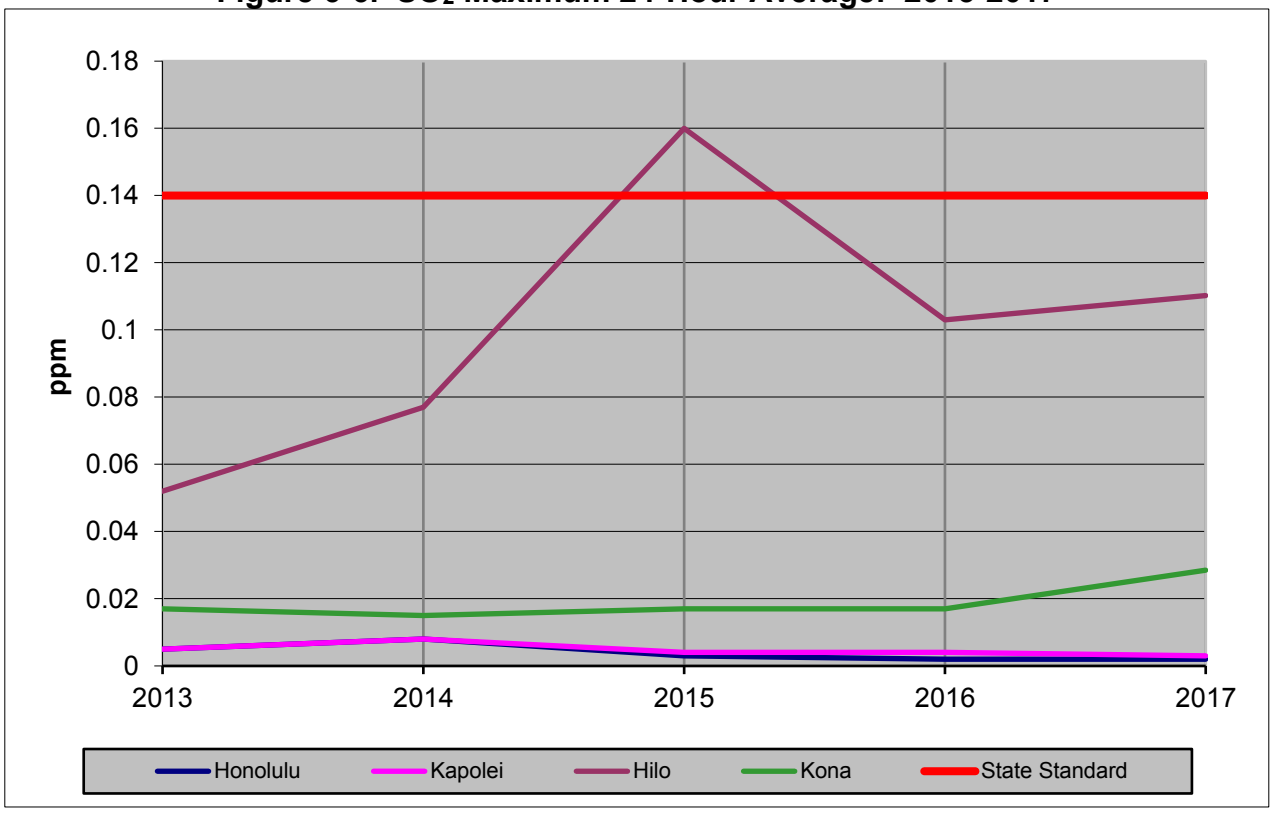


Figure 6-7. NO_2 Annual Average: 2013-2017

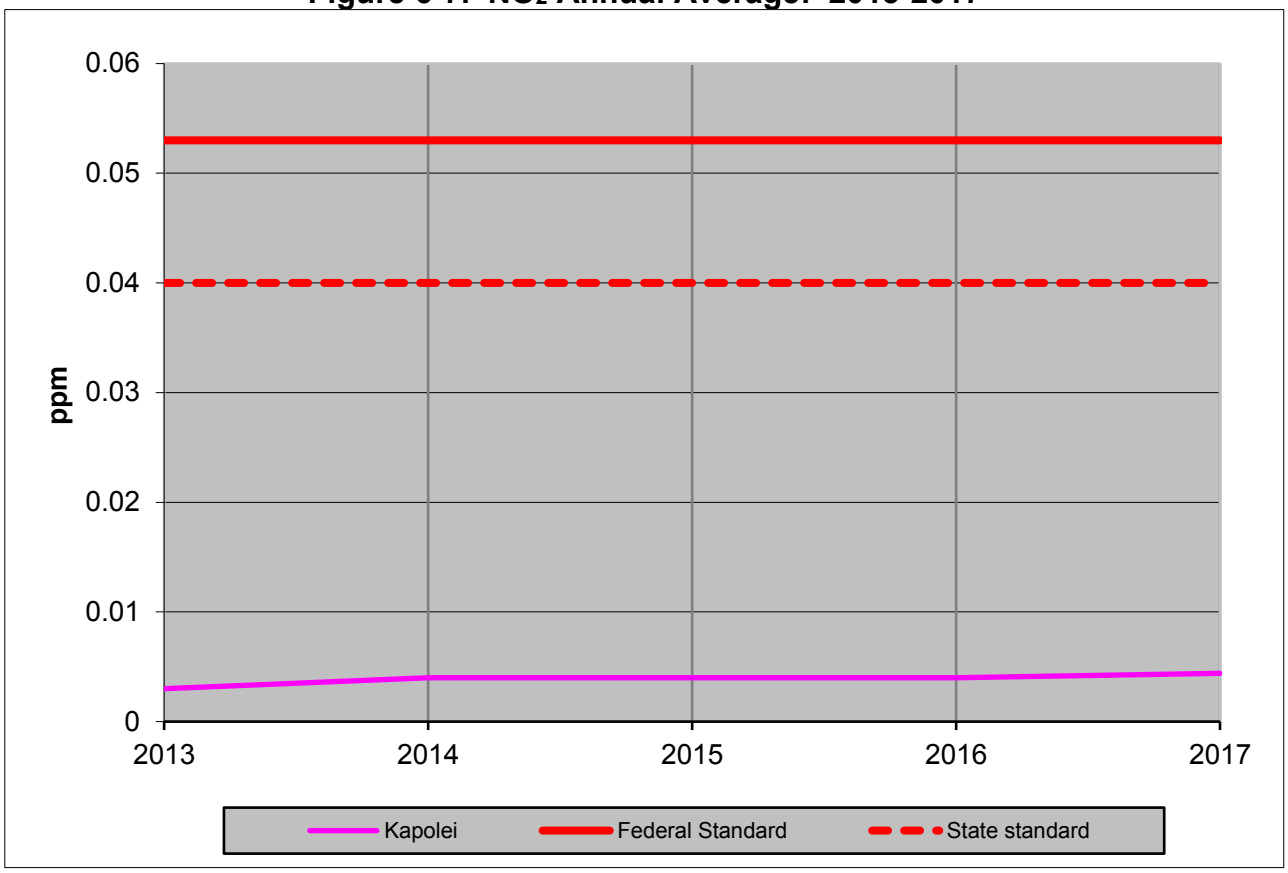


Figure 6-8. NO_2 Maximum 1-Hour Average: 2013-2017

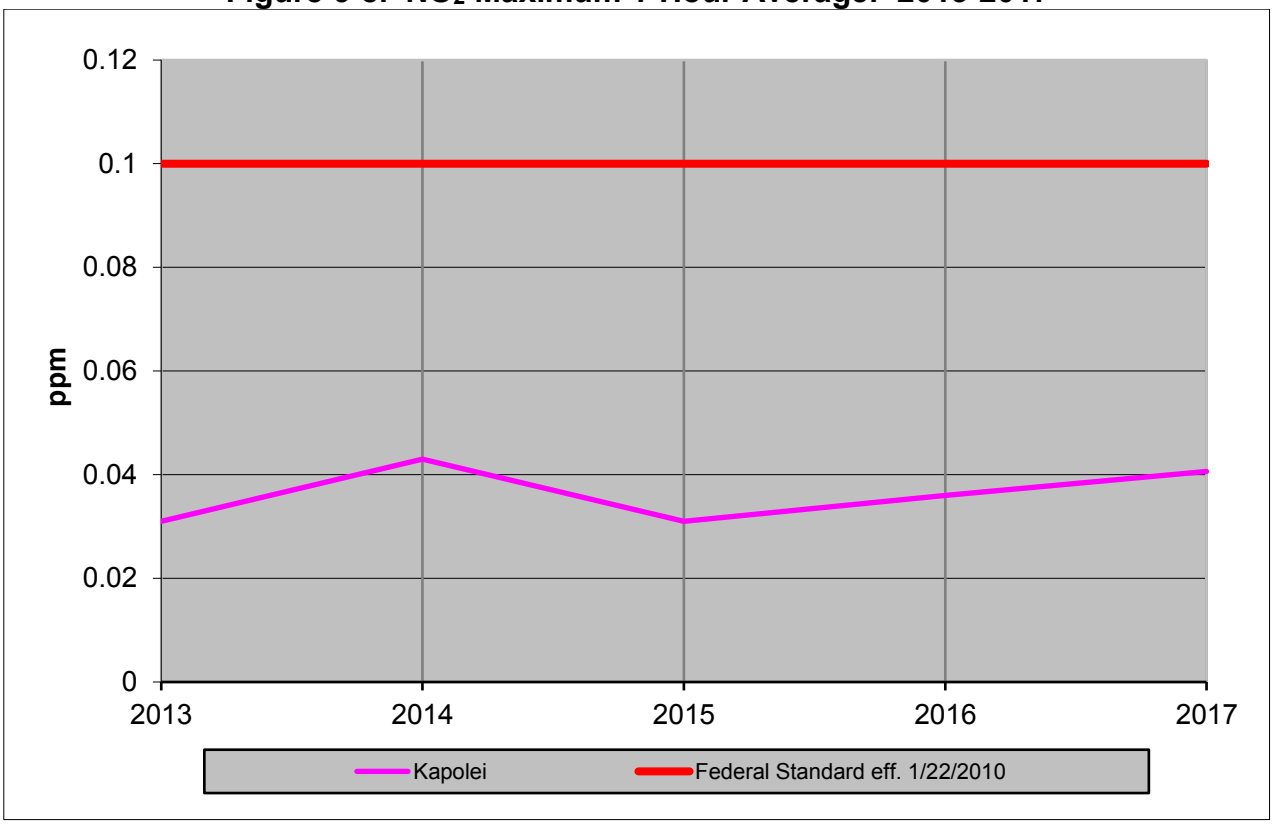


Figure 6-9. O_3 Fourth Highest Daily Maximum 8-Hour Average: 2013-2017

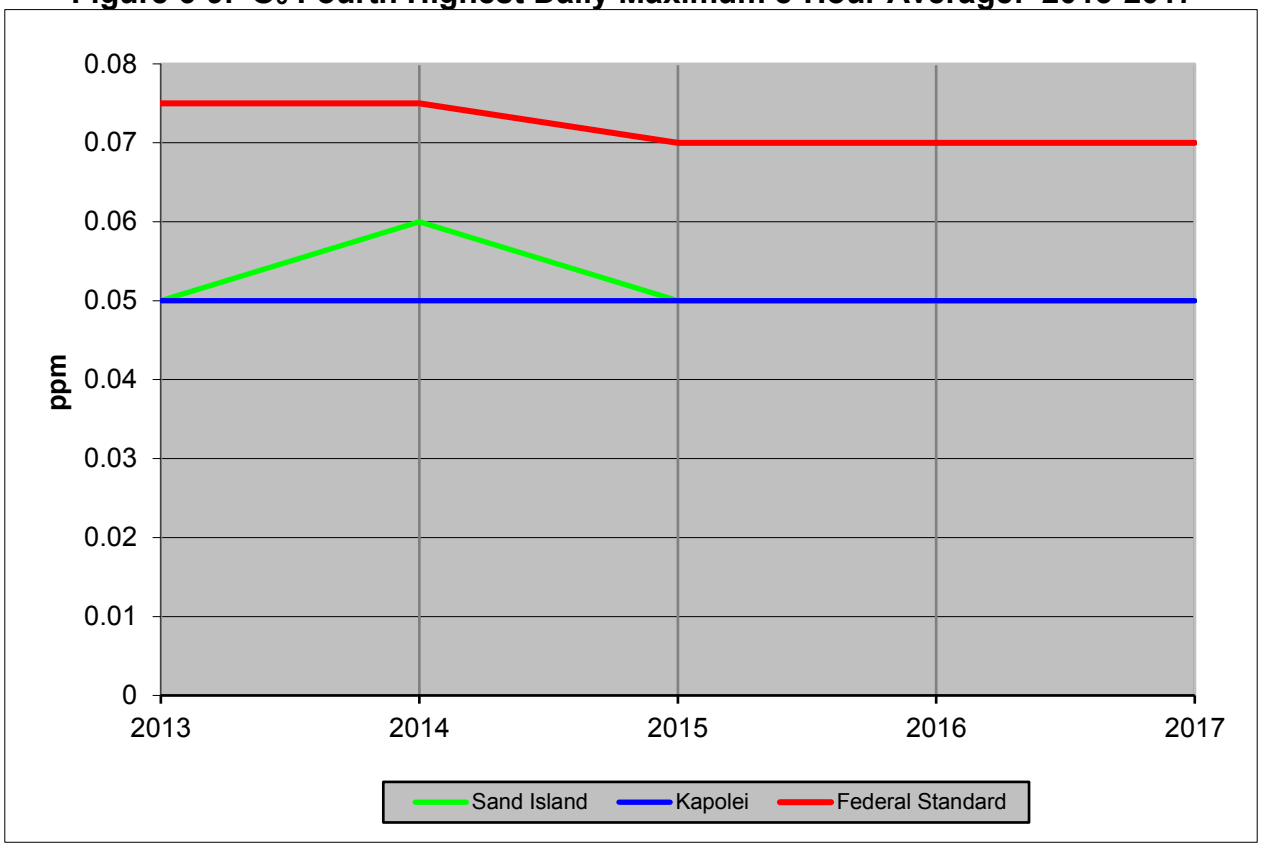


Figure 6-10. CO Maximum 1-Hour Average: 2013-2017

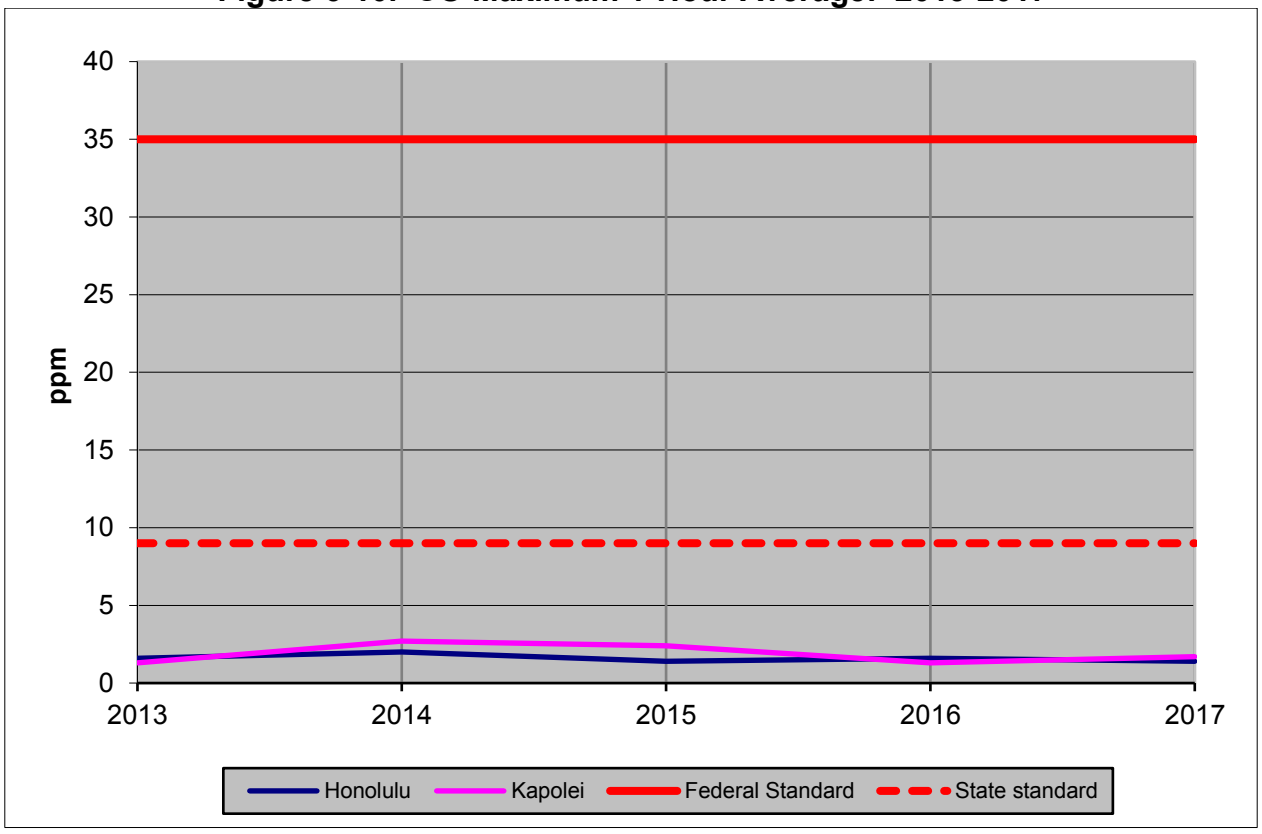


Figure 6-11. CO Maximum 8-Hour Average: 2013-2017

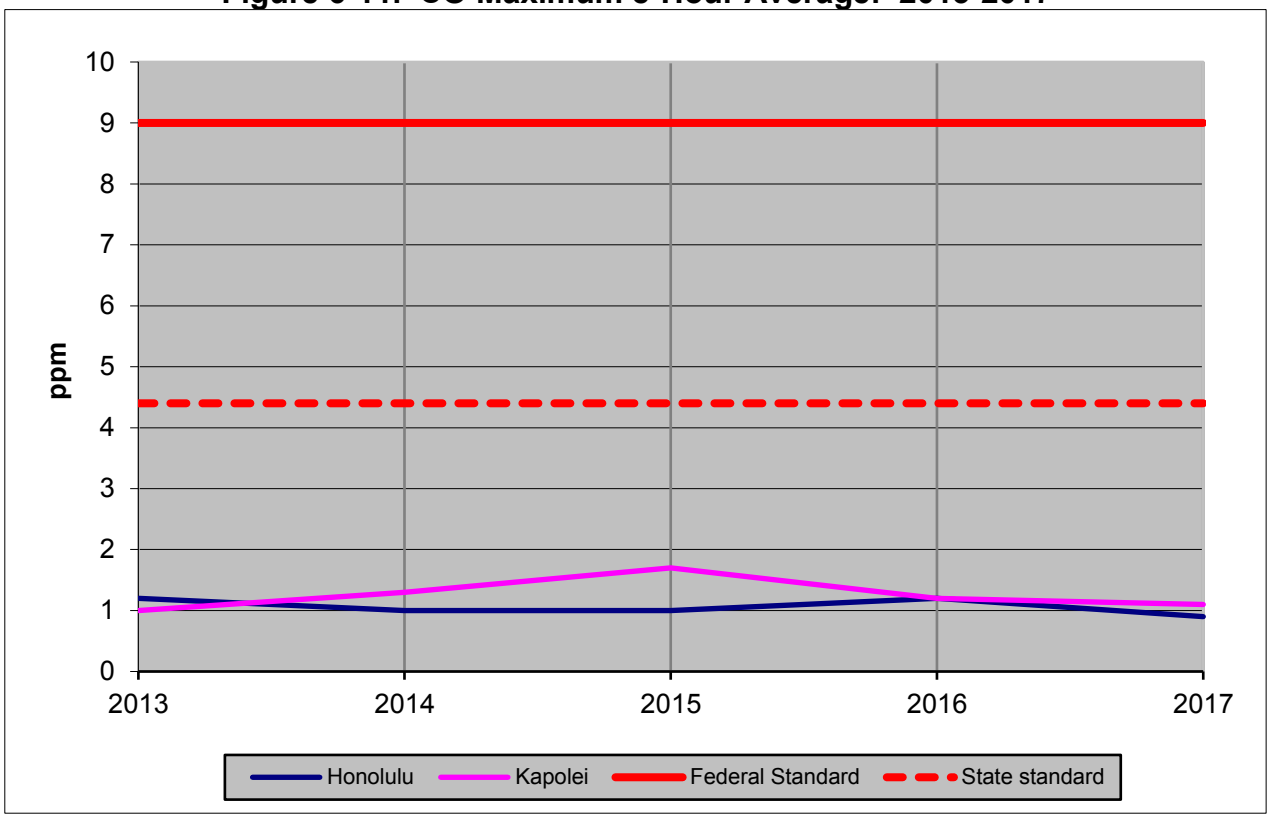
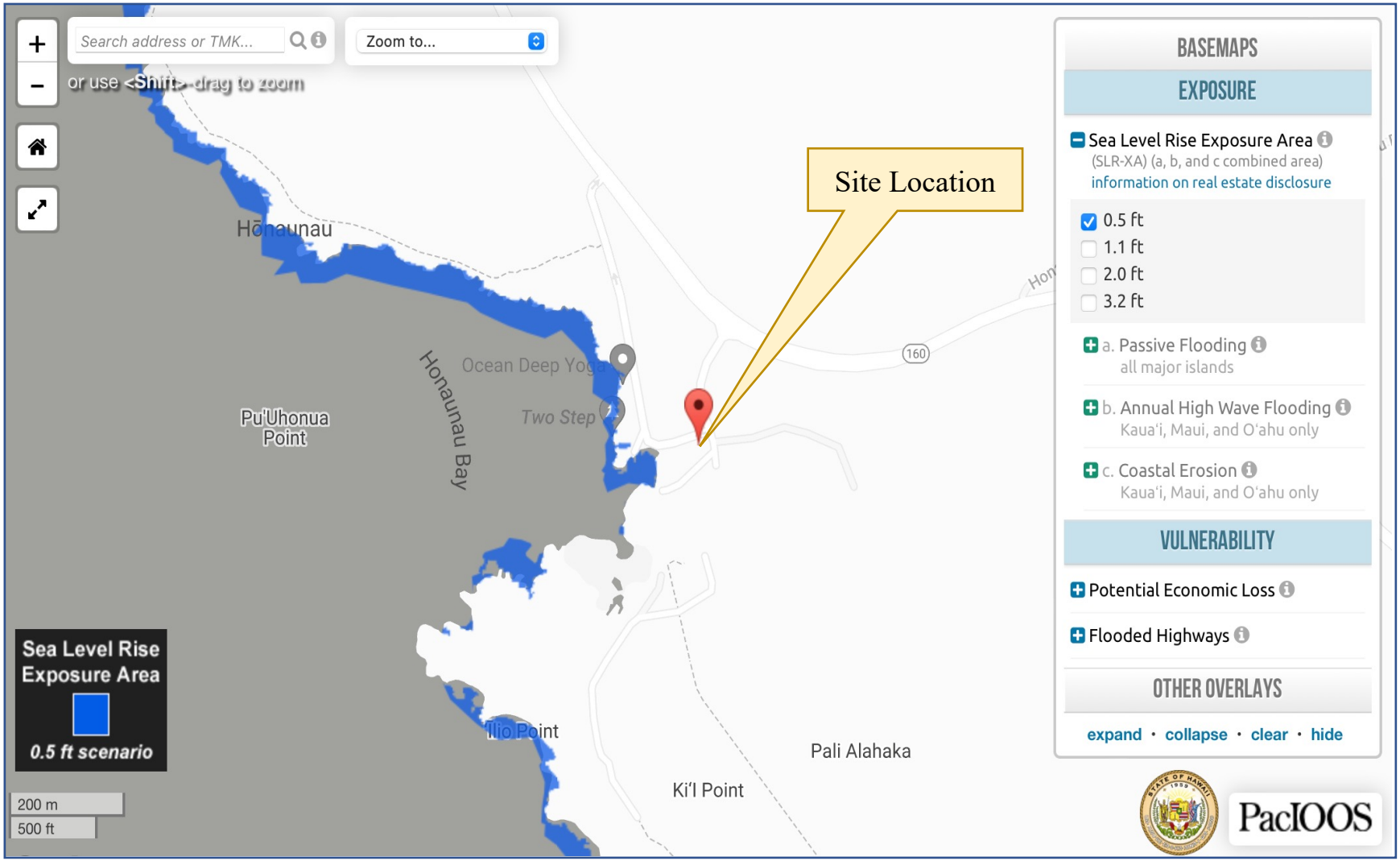
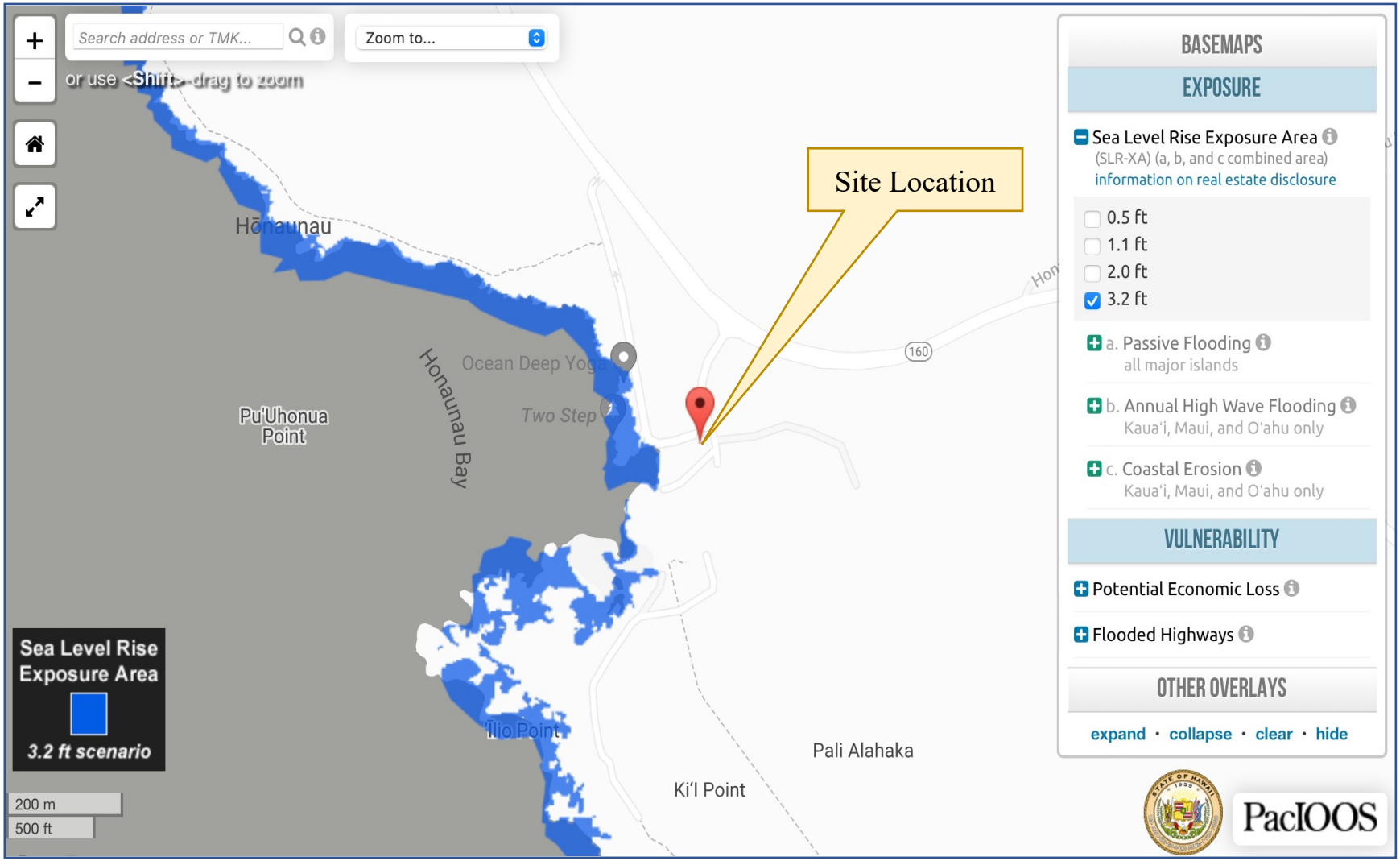


Exhibit 5: Coastal Zone Management

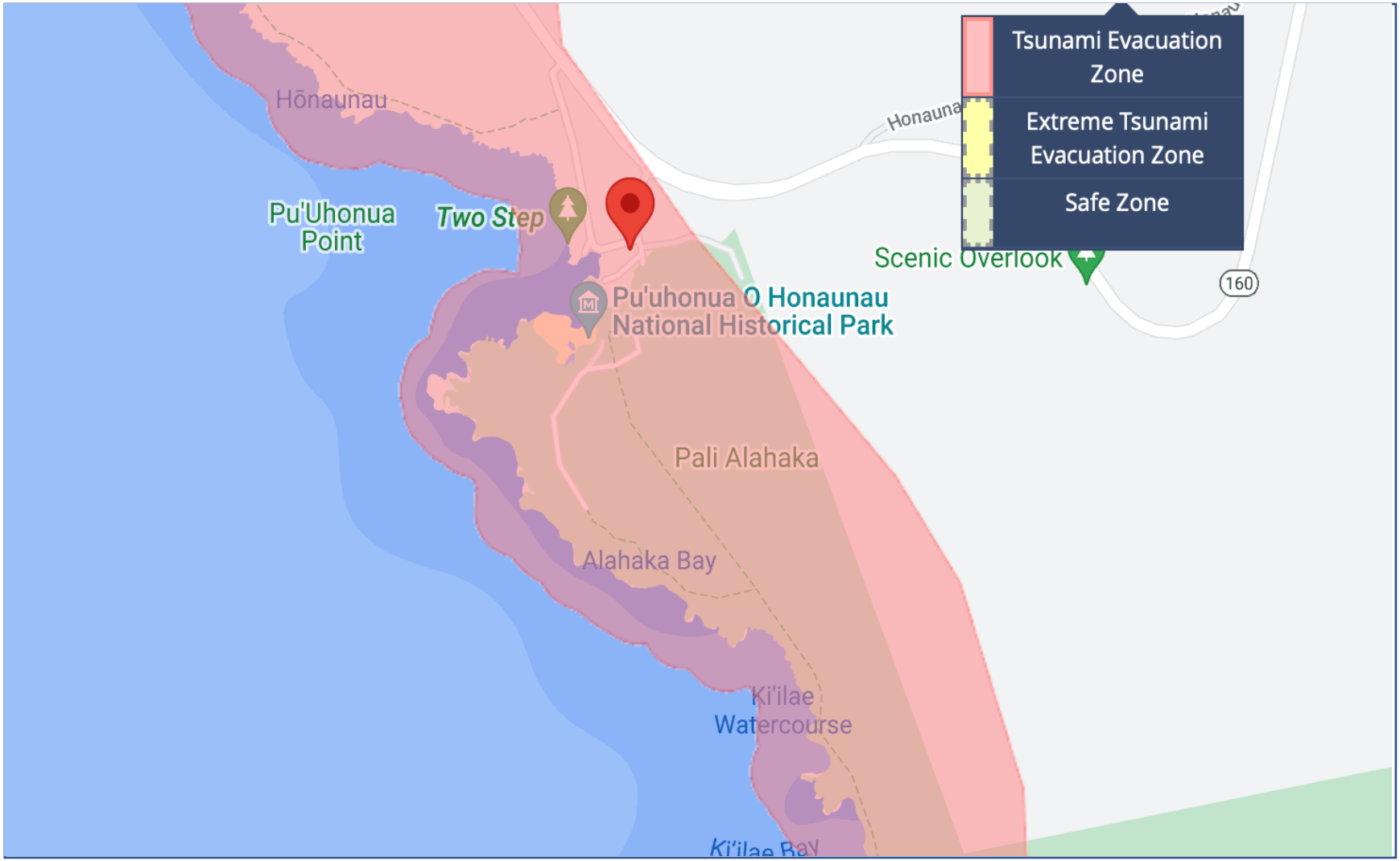
Please see Exhibit 3 - Tsunami Evacuation Zone Map and EA text discussing Coastal Zone Management.



Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE:	Sea Level Rise Map 0.5 feet
		EXHIBIT NUMBER:	5



Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE:	Sea Level Rise Map 3.2 feet
		EXHIBIT NUMBER:	5



Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE:	Tsunami Inundation Zone Map
		EXHIBIT NUMBER:	5

Exhibit 6: Contamination and Toxic Substances

84-5607 Ke Ala O Keawe Road
84-5607 Ke Ala O Keawe Road
Captain Cook, HI 96704

Inquiry Number: 7151896.2s
October 18, 2022

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
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with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

84-5607 KE ALA O KEAWE ROAD
CAPTAIN COOK, HI 96704

COORDINATES

Latitude (North):	19.4229370 - 19ˆ 25' 22.57''
Longitude (West):	155.9101570 - 155ˆ 54' 36.56''
Universal Tranverse Mercator:	Zone 5
UTM X (Meters):	194380.8
UTM Y (Meters):	2150079.8
Elevation:	25 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	9757553 HONAUNAU, HI
Version Date:	2017

MAPPED SITES SUMMARY

Target Property Address:
84-5607 KE ALA O KEAWE ROAD
CAPTAIN COOK, HI 96704

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

SHWS ..... Sites List

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF ..... Permitted Landfills in the State of Hawaii

Lists of state and tribal leaking storage tanks

LUST ..... Leaking Underground Storage Tank Database
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

Lists of state and tribal registered storage tanks

FEMA UST ..... Underground Storage Tank Listing
UST ..... Underground Storage Tank Database
INDIAN UST ..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS ..... Engineering Control Sites
INST CONTROL ..... Sites with Institutional Controls

Lists of state and tribal voluntary cleanup sites

VCP ..... Voluntary Response Program Sites
INDIAN VCP ..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS ..... Brownfields Sites

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY ..... SWRCY
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register

CDL	Clandestine Drug Lab Listing
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Listing

Local Land Records

LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Release Notifications
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
AIRS	List of Permitted Facilities

DRYCLEANERS Permitted Drycleaner Facility Listing
Financial Assurance Financial Assurance Information Listing
LEAD LEAD
UIC Underground Injection Wells Listing
MINES MRDS Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR Hist Auto EDR Exclusive Historical Auto Stations
EDR Hist Cleaner EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS Recovered Government Archive State Hazardous Waste Facilities List
RGA LF Recovered Government Archive Solid Waste Facilities List
RGA LUST Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

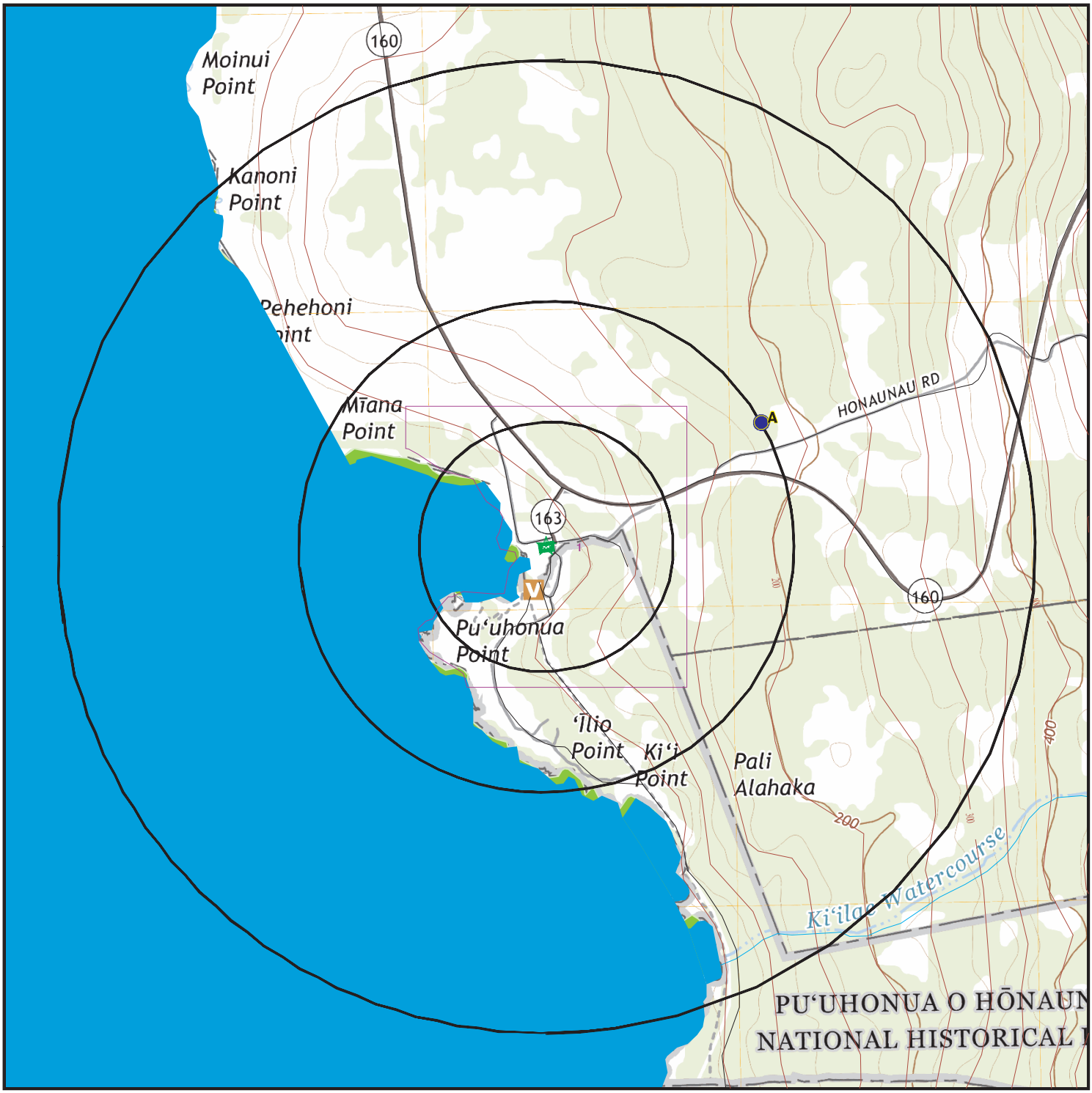
Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 7151896.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	84-5607 Ke Ala O Keawe Road	CLIENT:	Environmental Risk Analysis. LLC
ADDRESS:	84-5607 Ke Ala O Keawe Road Captain Cook HI 96704	CONTACT:	Gabrielle Sumner
LAT/LONG:	19.422937 / 155.910157	INQUIRY #:	7151896.2s
		DATE:	October 18, 2022 4:06 pm

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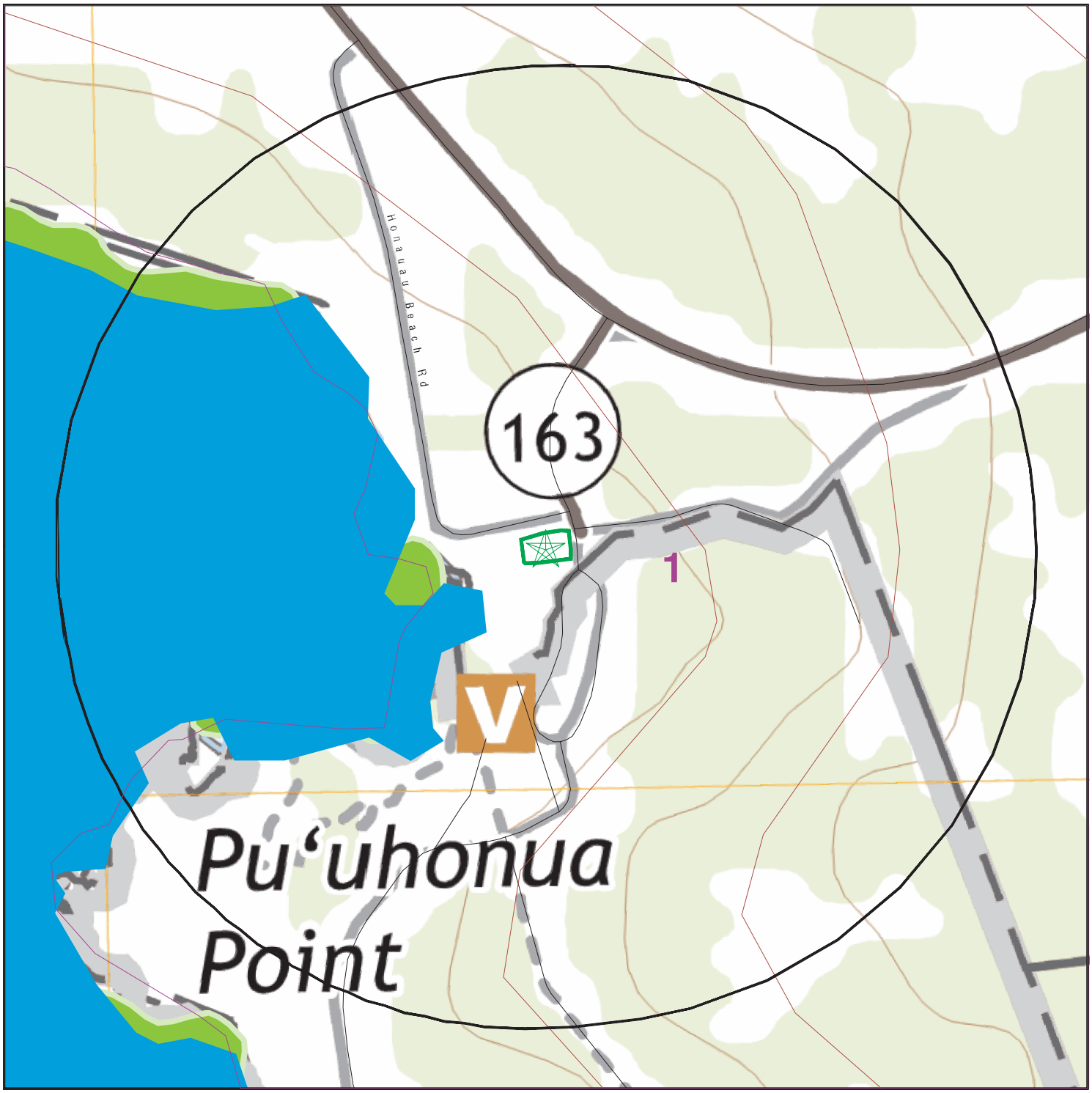
DETAIL MAP - 7151896.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	84-5607 Ke Ala O Keawe Road	CLIENT:	Environmental Risk Analysis. LLC
ADDRESS:	84-5607 Ke Ala O Keawe Road Captain Cook HI 96704	CONTACT:	Gabrielle Sumner
LAT/LONG:	19.422937 / 155.910157	INQUIRY #:	7151896.2s
		DATE:	October 18, 2022 4:07 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 09/06/2022
Next Scheduled EDR Contact: 01/10/2023
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/19/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 71

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/03/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 06/21/2022
Number of Days to Update: 6

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/20/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

SHWS: Sites List

Facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites).

Date of Government Version: 02/22/2022
Date Data Arrived at EDR: 03/09/2022
Date Made Active in Reports: 04/06/2022
Number of Days to Update: 28

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Semi-Annually

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Permitted Landfills in the State of Hawaii

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/14/2022
Date Data Arrived at EDR: 09/28/2022
Date Made Active in Reports: 10/12/2022
Number of Days to Update: 14

Source: Department of Health
Telephone: 808-586-4245
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Varies

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 02/24/2022
Date Made Active in Reports: 05/19/2022
Number of Days to Update: 84

Source: Department of Health
Telephone: 808-586-4228
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/28/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 06/02/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 79

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 02/24/2022
Date Made Active in Reports: 05/19/2022
Number of Days to Update: 84
Source: Department of Health
Telephone: 808-586-4228
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/13/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/14/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 06/02/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 79

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/28/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/07/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Control Sites

A listing of sites with engineering controls in place.

Date of Government Version: 04/17/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 9

Source: Department of Health
Telephone: 404-586-4249
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

INST CONTROL: Sites with Institutional Controls

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

Date of Government Version: 04/17/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 9

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Response Program Sites
Sites participating in the Voluntary Response Program. The purpose of the VRP is to streamline the cleanup process in a way that will encourage prospective developers, lenders, and purchasers to voluntarily cleanup properties.

Date of Government Version: 02/22/2022
Date Data Arrived at EDR: 03/09/2022
Date Made Active in Reports: 04/06/2022
Number of Days to Update: 28
Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields Sites
With certain legal exclusions and additions, the term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Date of Government Version: 02/22/2022
Date Data Arrived at EDR: 03/09/2022
Date Made Active in Reports: 04/06/2022
Number of Days to Update: 28
Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 0
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/26/2022
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: SWRCY
A listing of recycling and drop-off facilities located in Hawaii.

Date of Government Version: 09/14/2022
Date Data Arrived at EDR: 09/28/2022
Date Made Active in Reports: 10/05/2022
Number of Days to Update: 7
Source: Department of Health
Telephone: 808-586-4226
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 04/30/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab Listing
A listing of clandestine drug lab site locations.

Date of Government Version: 08/04/2010
Date Data Arrived at EDR: 09/10/2010
Date Made Active in Reports: 10/22/2010
Number of Days to Update: 42
Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 08/30/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 04/30/2022
Date Data Arrived at EDR: 05/24/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 66
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/18/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Listing
A listing of sites where "Potential PFAS" were found. The listing includes sites with "PFAs" and "fluoro", and site names that include "firefight", fire fight", "fire train".

Date of Government Version: 02/25/2022
Date Data Arrived at EDR: 02/28/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 10
Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/19/2022
Date Data Arrived at EDR: 09/19/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 11
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

SPILLS: Release Notifications
Releases of hazardous substances to the environment reported to the Office of Hazard Evaluation and Emergency Response since 1988.

Date of Government Version: 05/24/2022
Date Data Arrived at EDR: 05/25/2022
Date Made Active in Reports: 08/11/2022
Number of Days to Update: 78

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 08/09/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 03/10/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/11/2013
Number of Days to Update: 39

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 06/28/2022
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/11/2022
Date Data Arrived at EDR: 08/11/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 50

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/03/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/03/2022
Next Scheduled EDR Contact: 11/21/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/20/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 07/29/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/04/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/12/2022
Next Scheduled EDR Contact: 12/26/2022
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/18/2022
Date Data Arrived at EDR: 07/18/2022
Date Made Active in Reports: 07/29/2022
Number of Days to Update: 11

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/18/2022
Next Scheduled EDR Contact: 10/31/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/04/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 64

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/06/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/10/2022
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 69

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 84
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/04/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/21/2022
Next Scheduled EDR Contact: 01/10/2023
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/21/2022
Next Scheduled EDR Contact: 11/07/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2022
Date Data Arrived at EDR: 07/21/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 71

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 23

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/19/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/06/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/26/2022
Next Scheduled EDR Contact: 11/14/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/24/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/26/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/03/2022
Date Data Arrived at EDR: 08/17/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 14

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 08/01/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 59

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 10/04/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/14/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 08/22/2022
Number of Days to Update: 68

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/13/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 13

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 08/25/2022
Next Scheduled EDR Contact: 12/12/2022
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/25/2022
Date Data Arrived at EDR: 07/01/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/30/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/22/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/11/2022
Date Data Arrived at EDR: 08/11/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 50

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/11/2022
Next Scheduled EDR Contact: 11/28/2022
Data Release Frequency: Quarterly

AIRS: List of Permitted Facilities
A listing of permitted facilities in the state.

Date of Government Version: 06/28/2022
Date Data Arrived at EDR: 06/30/2022
Date Made Active in Reports: 09/14/2022
Number of Days to Update: 76

Source: Department of Health
Telephone: 808-586-4200
Last EDR Contact: 09/21/2022
Next Scheduled EDR Contact: 01/10/2023
Data Release Frequency: Varies

DRYCLEANERS: Permitted Drycleaner Facility Listing
A listing of permitted drycleaner facilities in the state.

Date of Government Version: 06/28/2022
Date Data Arrived at EDR: 06/30/2022
Date Made Active in Reports: 10/04/2022
Number of Days to Update: 96

Source: Department of Health
Telephone: 808-586-4200
Last EDR Contact: 09/21/2022
Next Scheduled EDR Contact: 01/10/2023
Data Release Frequency: Varies

Financial Assurance: Financial Assurance Information Listing
A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 06/07/2022
Date Data Arrived at EDR: 06/10/2022
Date Made Active in Reports: 06/16/2022
Number of Days to Update: 6

Source: Department of Health
Telephone: 808-586-4226
Last EDR Contact: 08/30/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

LEAD: Lead Inspection Listing
Lead inspections

Date of Government Version: 06/15/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 09/02/2022
Number of Days to Update: 79

Source: Department of Health
Telephone: 808-586-5800
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Varies

UIC: Underground Injection Wells Listing
A listing of underground injection well locations.

Date of Government Version: 02/07/2013
Date Data Arrived at EDR: 02/12/2013
Date Made Active in Reports: 04/09/2013
Number of Days to Update: 56

Source: Department of Health
Telephone: 808-586-4258
Last EDR Contact: 08/16/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/17/2022
Next Scheduled EDR Contact: 12/05/2022
Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/28/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/28/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/28/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 191

Source: Department of Health
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/17/2014
Number of Days to Update: 200

Source: Department of Health
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Health
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Office of Planning
Telephone: 808-587-2895

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

84-5607 KE ALA O KEAWE ROAD
84-5607 KE ALA O KEAWE ROAD
CAPTAIN COOK, HI 96704

TARGET PROPERTY COORDINATES

Latitude (North):	19.422937 - 19ˆ 25' 22.57''
Longitude (West):	155.910157 - 155ˆ 54' 36.57''
Universal Tranverse Mercator:	Zone 5
UTM X (Meters):	194380.8
UTM Y (Meters):	2150079.8
Elevation:	25 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	9757553 HONAUNAU, HI
Version Date:	2017

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

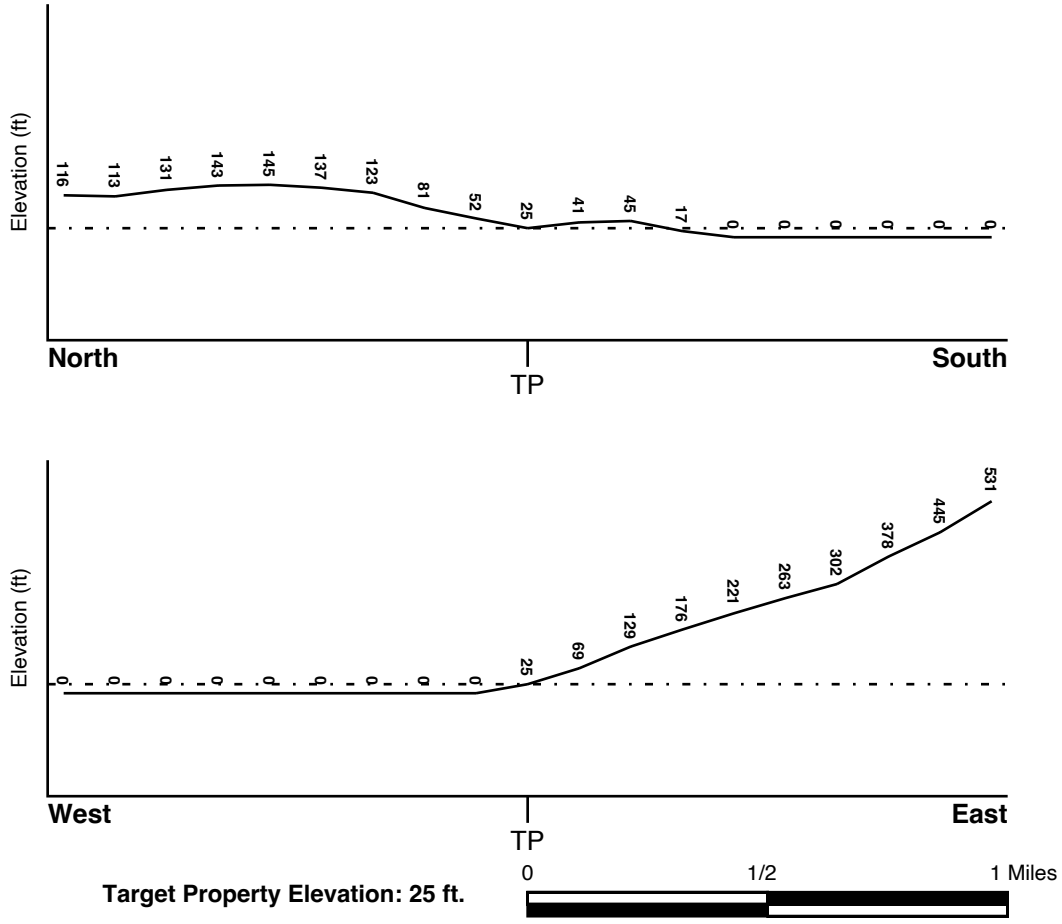
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 25 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
Not Reported	

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
HONAUNAU	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

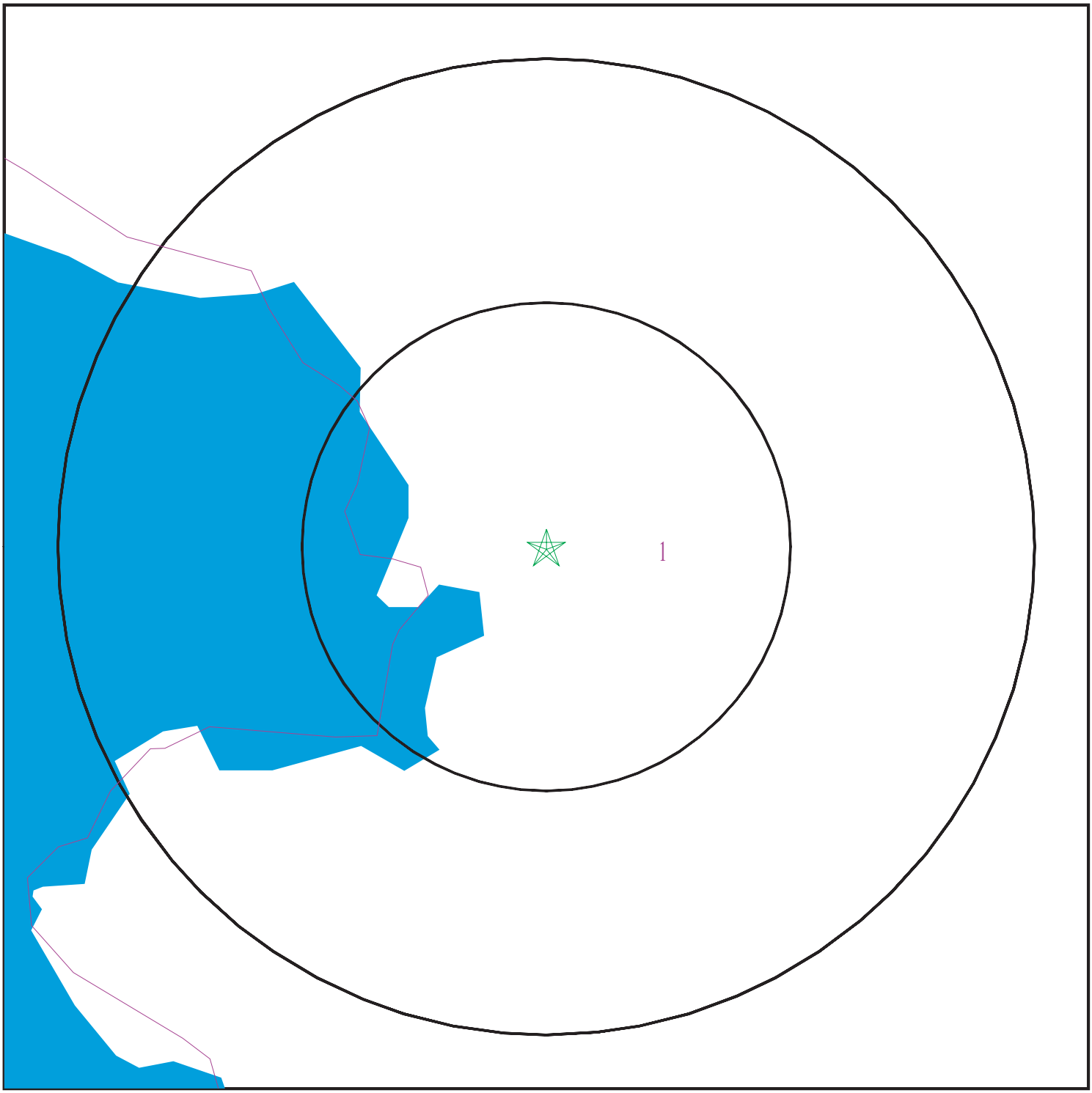
Era: -
System: -
Series: -
Code: N/A *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: -

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7151896.2s



SITE NAME:	84-5607 Ke Ala O Keawe Road	CLIENT:	Environmental Risk Analysis. LLC
ADDRESS:	84-5607 Ke Ala O Keawe Road Captain Cook HI 96704	CONTACT:	Gabrielle Sumner
LAT/LONG:	19.422937 / 155.910157	INQUIRY #:	7151896.2s
		DATE:	October 18, 2022 4:07 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Lava flows, pahoehoe

Soil Surface Texture: bedrock

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	bedrock	Not reported	Not reported	Max: 1.42 Min: 0.42	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000268396	1/2 - 1 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

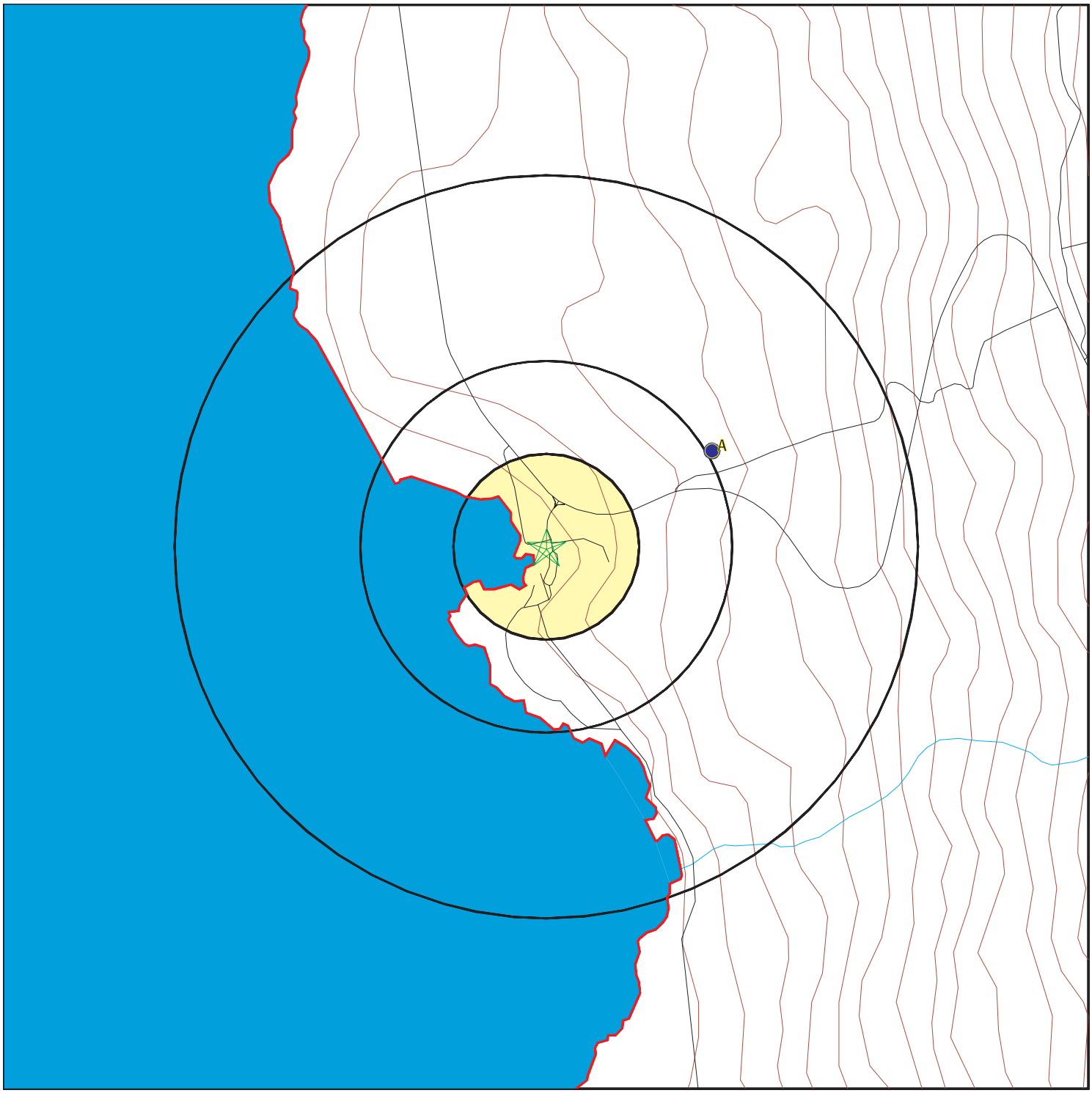
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	HI1200000003991	1/2 - 1 Mile ENE

PHYSICAL SETTING SOURCE MAP - 7151896.2s



County Boundary
Major Roads
Contour Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location

N

SITE NAME:	84-5607 Ke Ala O Keawe Road	CLIENT:	Environmental Risk Analysis. LLC
ADDRESS:	84-5607 Ke Ala O Keawe Road Captain Cook HI 96704	CONTACT:	Gabrielle Sumner
LAT/LONG:	19.422937 / 155.910157	INQUIRY #:	7151896.2s
		DATE:	October 18, 2022 4:07 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
ENE
1/2 - 1 Mile
Higher

HI WELLS **HI1200000003991**

Well #:	8-2554-001	Pump Rate (g/m):	0
Well Owner:	John Basque	Land Owner:	Kamehameha Schools, KS
Well Use:	Unused	Well Name:	Honaunau S Kona
Original Well Name:	Not Reported	Driller:	Samson/Smock
Well Construction Type:	Percussion	Casing Diameter (in):	10
Ground Elevation (ft):	0	Well Depth (ft):	193
Solid Casing Depth:	192	Perforated Casing Depth:	0
Major Well Use:	Unused	Initial Water Level (ft):	0
Water Level After Drilling:	0	Water Level After Install:	0
Chloride Content (mg/L):	1140	Date Tested:	Not Reported
Test Pump Rate (g/m):	240	Test Drawdown Rate(ft):	0
Test Chloride Content (MG/L):	1240	Test Water Temp:	0
Temp Unit:	Not Reported	Max Chloride Level:	Not Reported
Minimum Chloride Level:	Not Reported	Year Installed:	0
Draft Year:	Not Reported	Hole Bottom Elevation:	0
Solid Casing Bottom Elevation:	0	Perforated Casing Bottom Elevation:	0
Pump Capacity (MM gal/day):	0	Pump Intake Depth:	0
Latest Head:	Not Reported	Latest WCR1 Report:	01-JAN-56
Latest WCR2 Report:	Not Reported	Transmissivity:	0
Min to Pump 5 Volumes:	0		

A2
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000268396**

Organization ID:	USGS-HI	Organization Name:	USGS Hawaii Water Science Center
Monitor Location:	8-2554-01 W12-1	Type:	Well
Description:	Not Reported	HUC:	20010000
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19560101
Well Depth:	193	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for HAWAII County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 96704

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.450 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Office of Planning
Telephone: 808-587-2895

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Well Index Database
Source: Commission on Water Resource Management
Telephone: 808-587-0214
CWRM maintains a Well Index Database to track specific information pertaining to the construction and installation of production wells in Hawaii.

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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Exhibit 7: Endangered Species

Please see EA text discussing Flora and Fauna.

Exhibit 8: Explosive and Flammable Hazards

No Explosive or Flammable Hazards were identified near the Site.

Exhibit 9: Farmlands Protection

Island of Hawaii Area, Hawaii (HI801)

Island of Hawaii Area, Hawaii (HI801)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
123	Lava flows-Punaluu complex, 2 to 20 percent slopes	0.3	100.0%
Totals for Area of Interest		**0.3**	**100.0%**

Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

EXHIBIT TITLE: Farmlands Protection

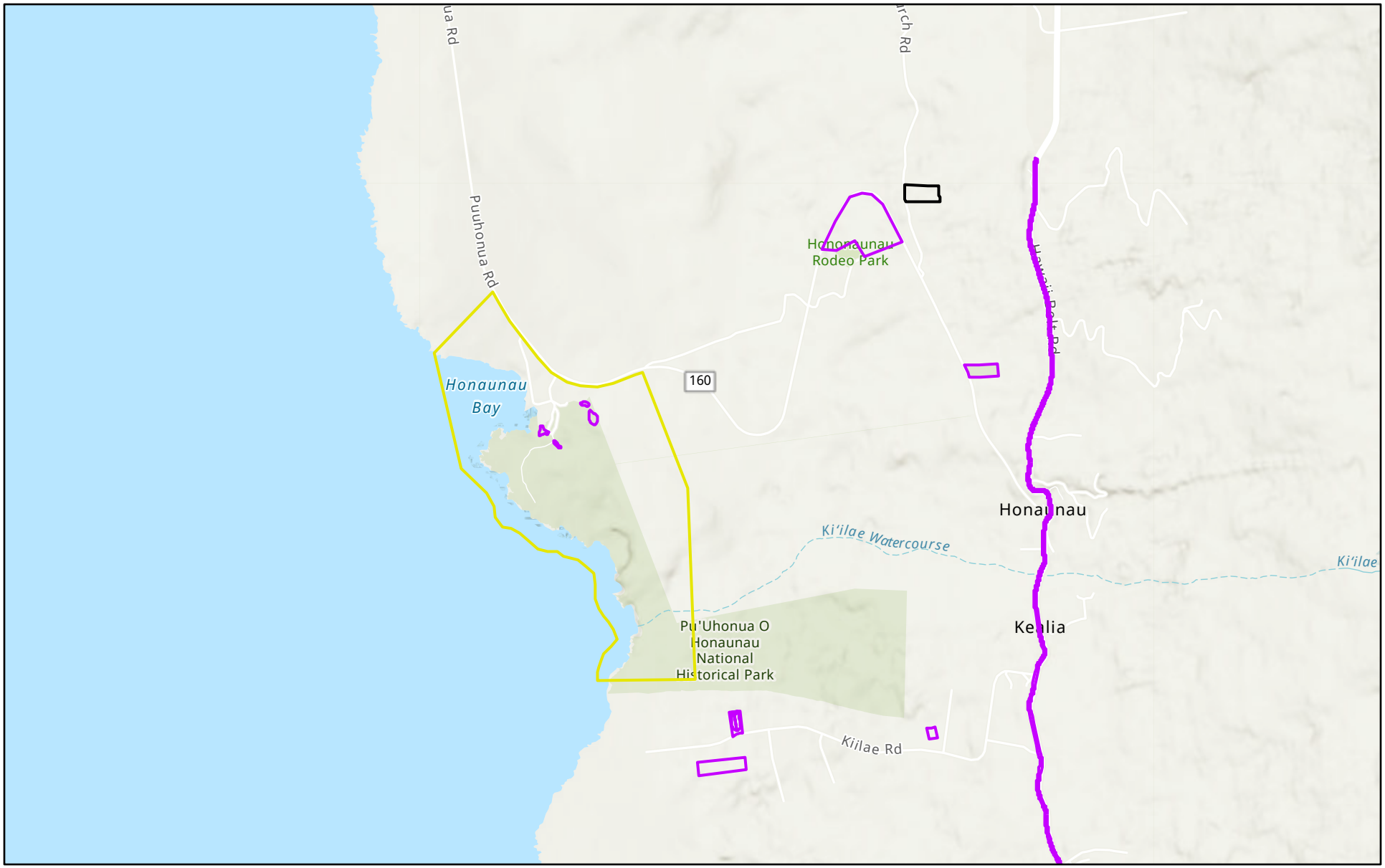
EXHIBIT NUMBER: 9

Exhibit 10: Floodplain Management

Please see Exhibit 3 - FEMA FIRM Map and EA text discussing flood plains.

Exhibit 11: Historic Preservation

84-5607 Ke Ala O Keawe Road



11/2/2022

Project Area of Potential Effect

District Resource

Above Ground Resource

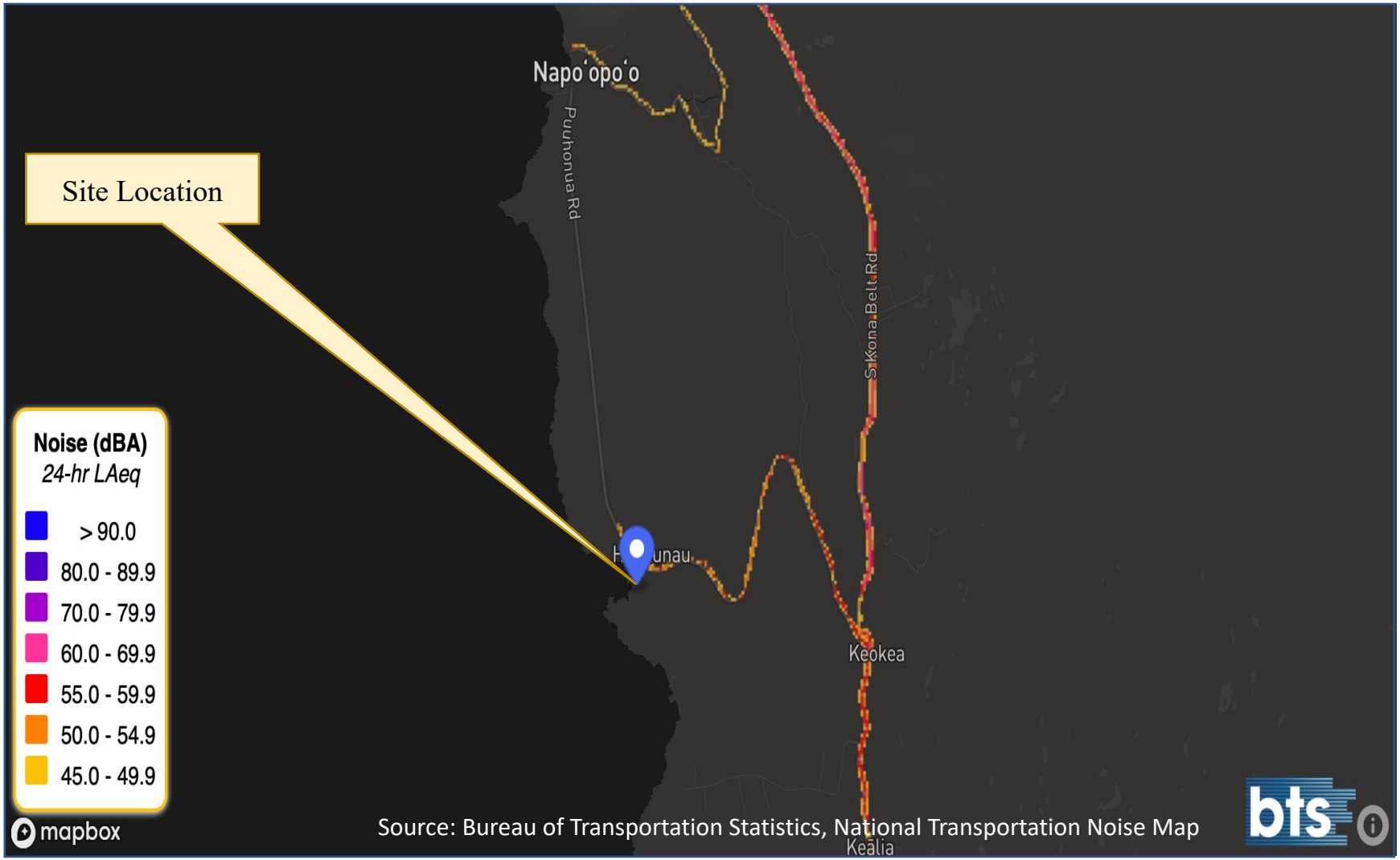
1:36,112

0 0.28 0.55 1.1 mi

0 0.45 0.9 1.8 km

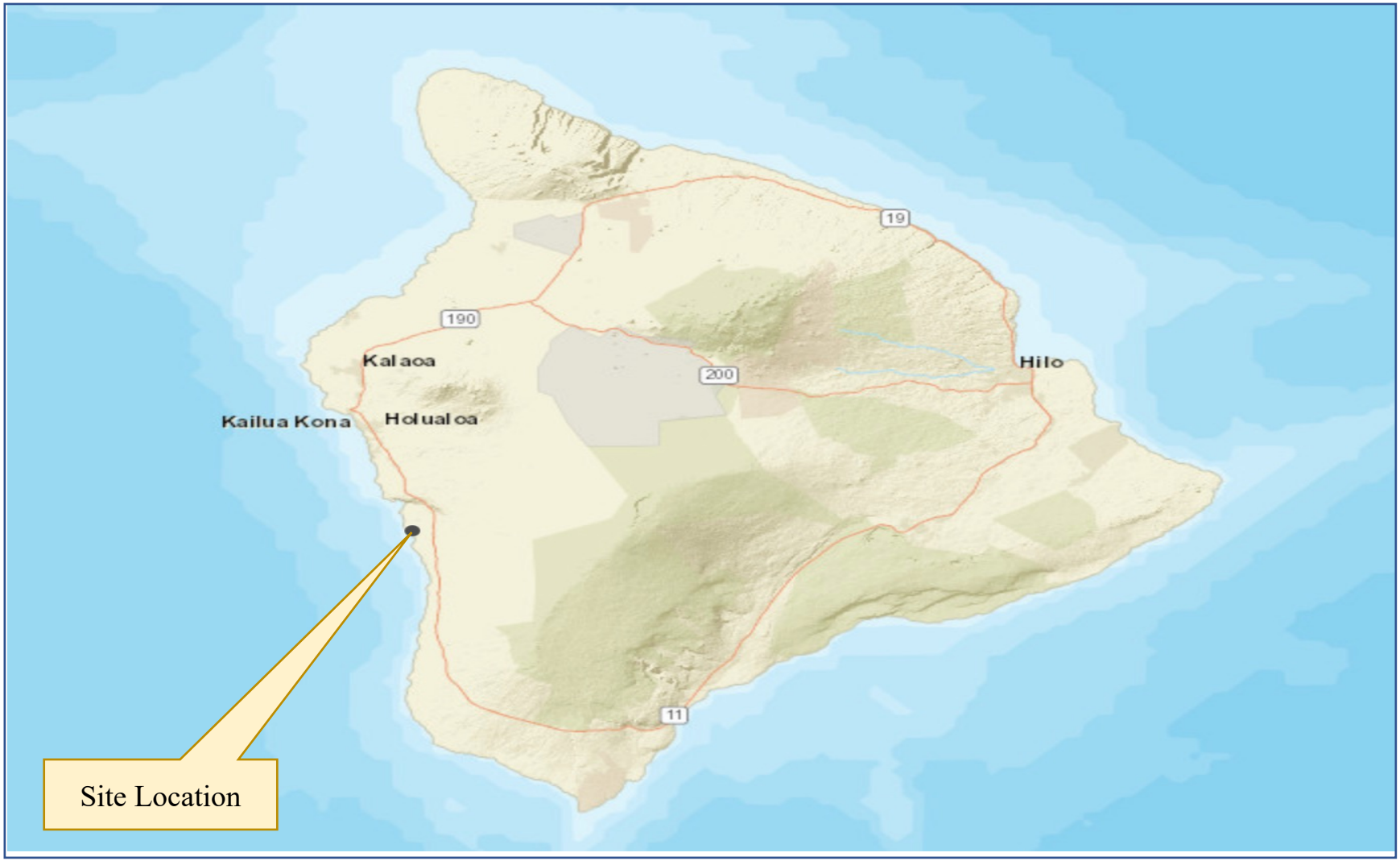
Esri, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, US Census Bureau, USDA

Exhibit 12: Noise Abatement and Control

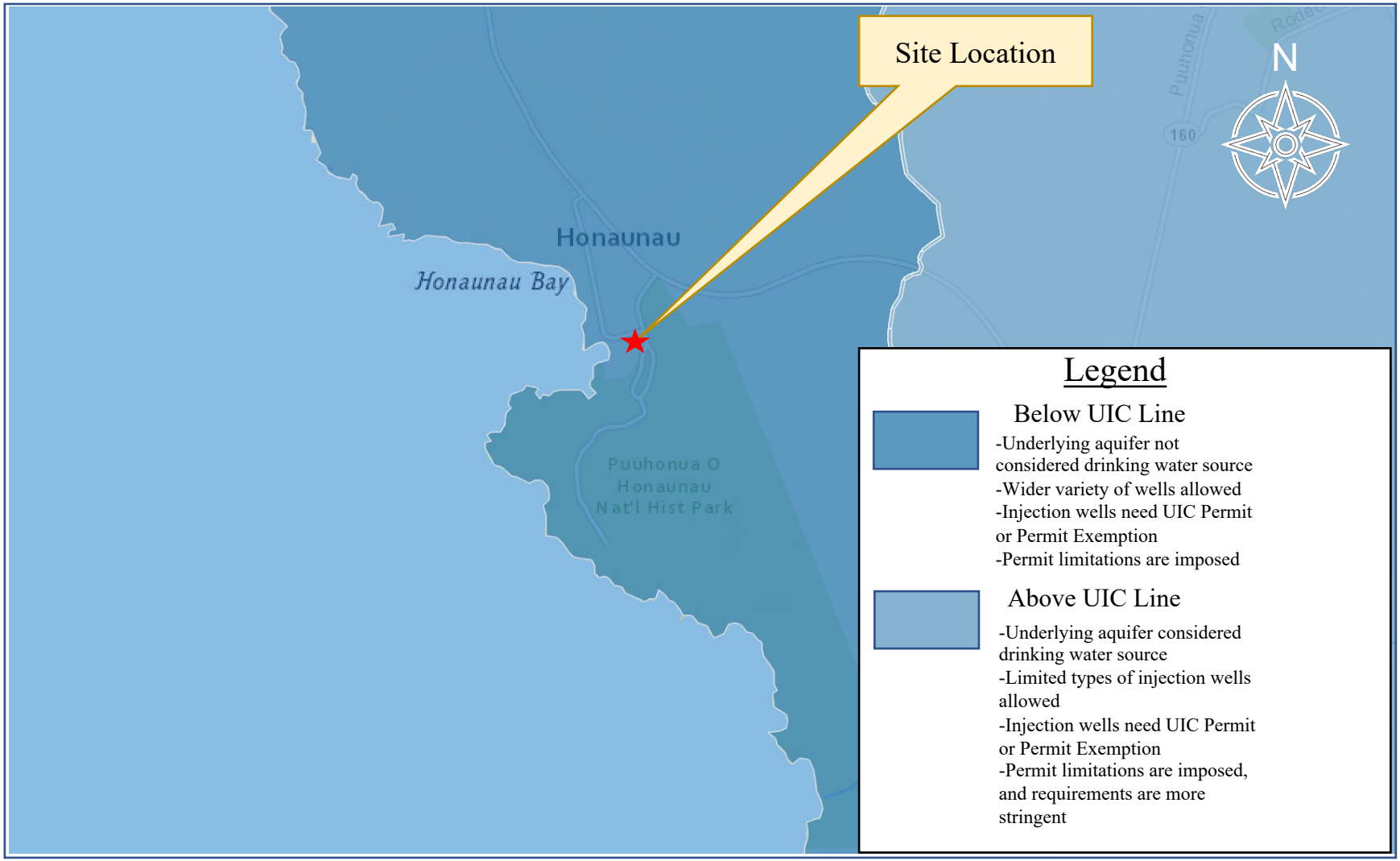


Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE:	Noise Map
		EXHIBIT NUMBER:	12

Exhibit 13: Sole Source Aquifers/Safe Drinking Water



Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE: Sole Source Aquifer Map EXHIBIT NUMBER: 13



Environmental Risk Analysis

PROJECT NAME:
Environmental Assessment
84-5607 Ke Ala O Keawe Road
Honaunau, HI 96704
TMK: (3) 8-4-013:016

EXHIBIT TITLE:
Underground Injection Control Map

EXHIBIT NUMBER:
13

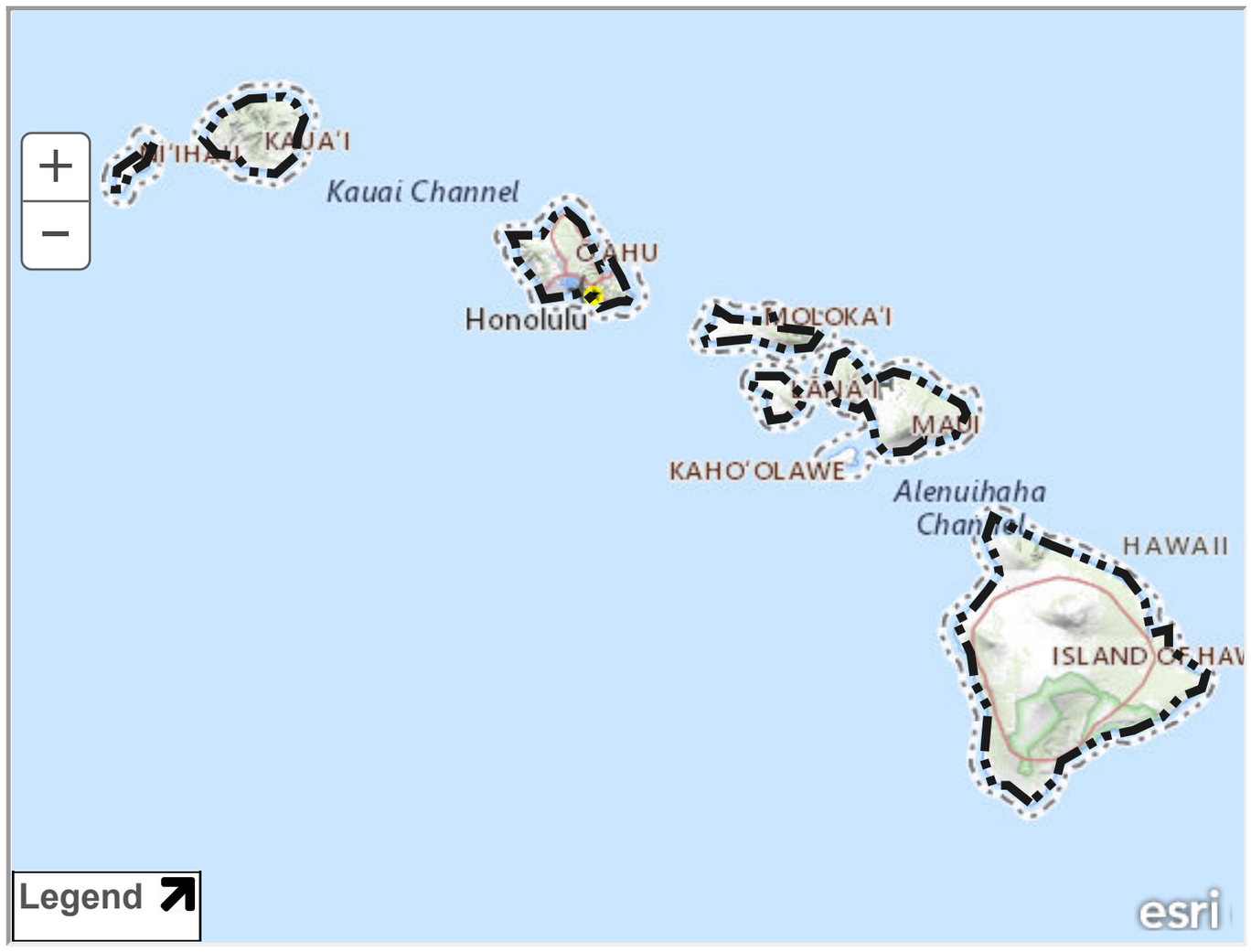
Exhibit 14: Wetlands Protection

Environmental Risk Analysis	PROJECT NAME: Environmental Assessment 84-5607 Ke Ala O Keawe Road Honaunau, HI 96704 TMK: (3) 8-4-013:016	EXHIBIT TITLE: Wetlands Map EXHIBIT NUMBER: 14

Exhibit 15: Wild and Scenic Rivers

HAWAII

Hawaii has approximately 3,905 miles of river, but no designated wild & scenic rivers.



+ View larger map

Hawaii does not have any designated rivers.

EXPLORE DESIGNATED RIVERS

Choose A State Go

Choose A River Go

Dark and foreboding one minute, sun-drenched and exploding with color the next, tropical rivers span every mood.

Exhibit 16: Environmental Justice

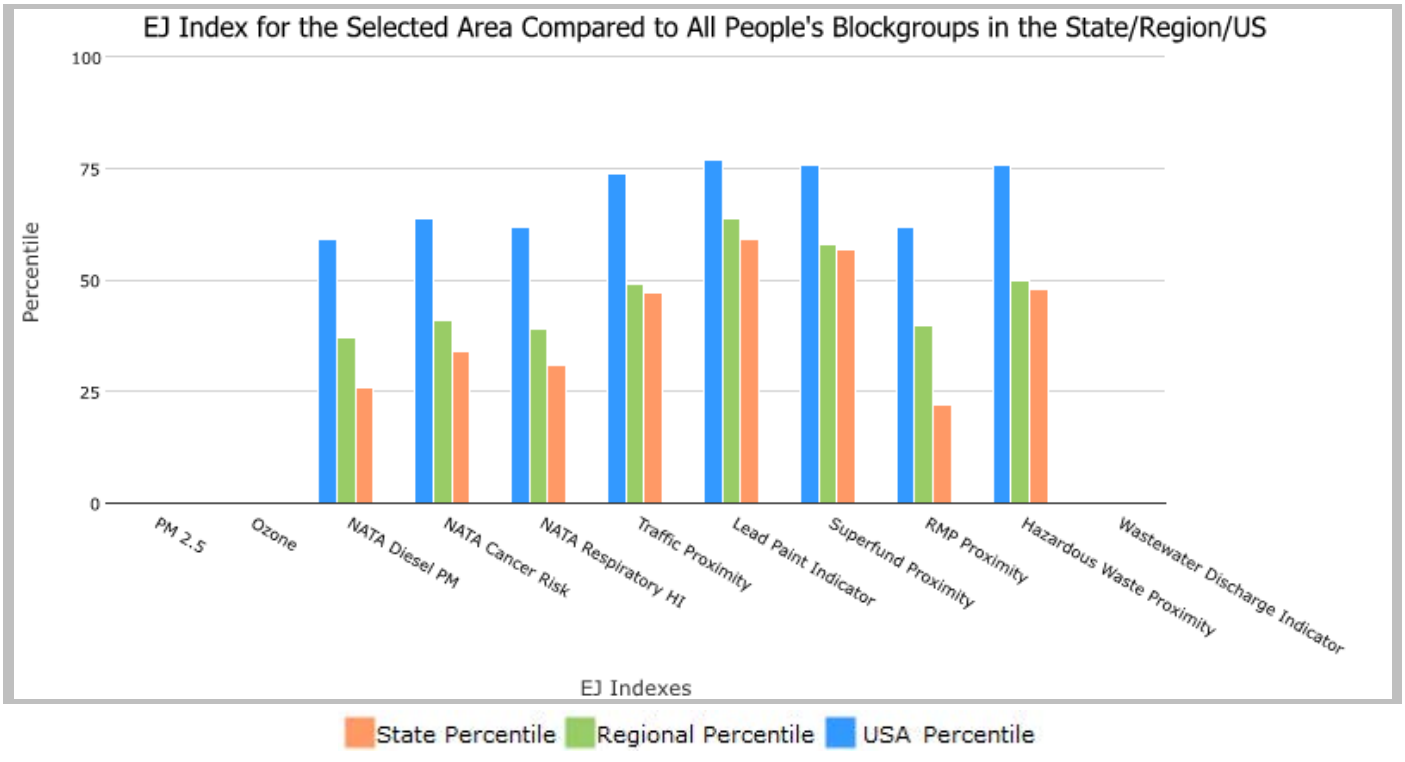
EJSCREEN Report (Version 2020)

1 mile Ring Centered at 21.627508,-157.921751, HAWAII, EPA Region 9

Approximate Population: 2,860

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	N/A	N/A	N/A
EJ Index for Ozone	N/A	N/A	N/A
EJ Index for NATA* Diesel PM	26	37	59
EJ Index for NATA* Air Toxics Cancer Risk	34	41	64
EJ Index for NATA* Respiratory Hazard Index	31	39	62
EJ Index for Traffic Proximity and Volume	47	49	74
EJ Index for Lead Paint Indicator	59	64	77
EJ Index for Superfund Proximity	57	58	76
EJ Index for RMP Proximity	22	40	62
EJ Index for Hazardous Waste Proximity	48	50	76
EJ Index for Wastewater Discharge Indicator	N/A	N/A	N/A

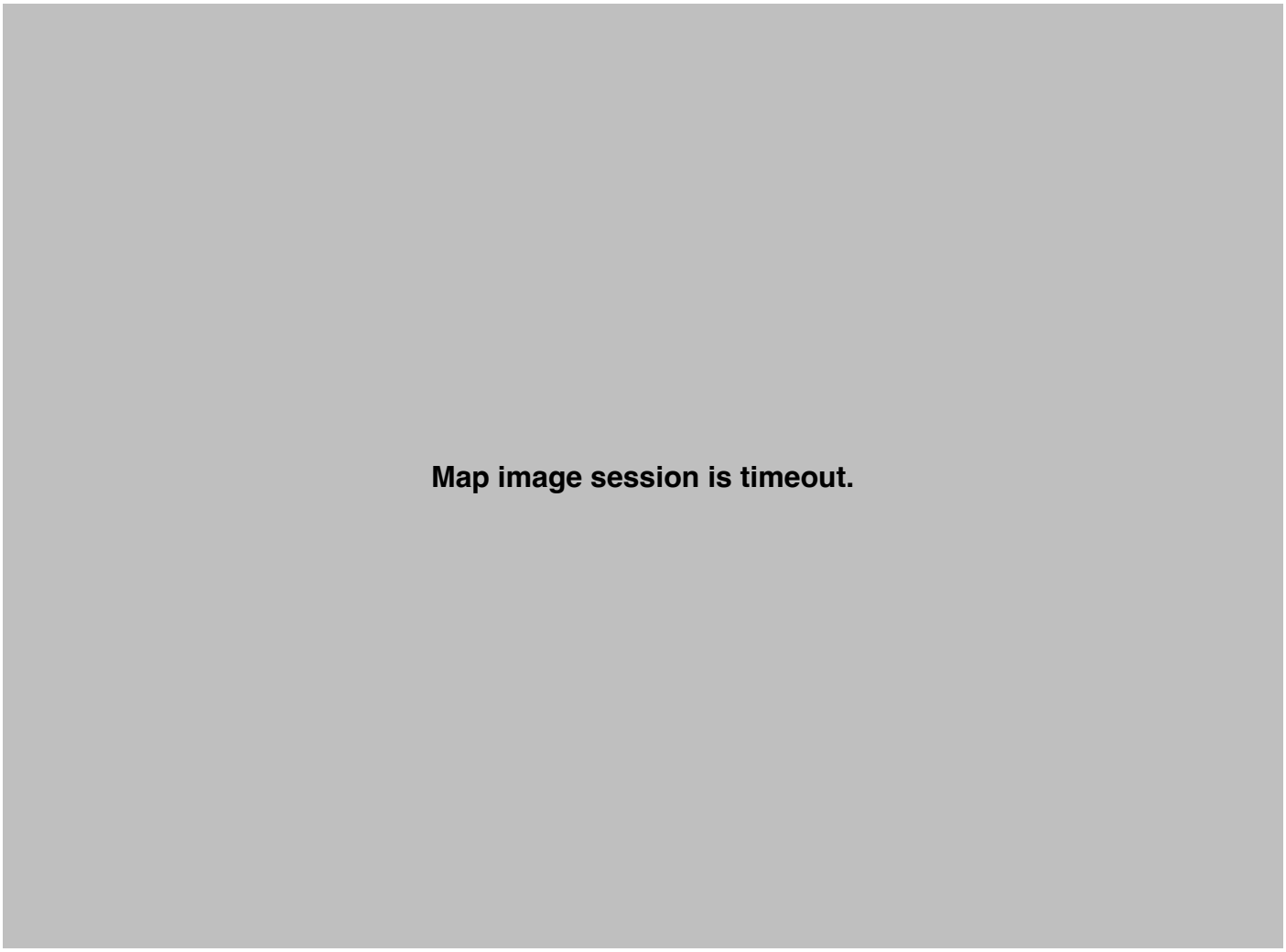


This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

1 mile Ring Centered at 21.627508,-157.921751, HAWAII, EPA Region 9

Approximate Population: 2,860

Input Area (sq. miles): 3.14



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

EJSCREEN Report (Version 2020)

1 mile Ring Centered at 21.627508,-157.921751, HAWAII, EPA Region 9

Approximate Population: 2,860

Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	N/A	N/A	N/A	9.99	N/A	8.55	N/A
Ozone (ppb)	N/A	N/A	N/A	50.1	N/A	42.9	N/A
NATA* Diesel PM (µg/m^3)	0.0184	0.164	19	0.479	<50th	0.478	<50th
NATA* Cancer Risk (lifetime risk per million)	9.7	14	23	35	<50th	32	<50th
NATA* Respiratory Hazard Index	0.097	0.16	20	0.53	<50th	0.44	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	250	1200	44	1700	29	750	53
Lead Paint Indicator (% Pre-1960 Housing)	0.17	0.16	63	0.24	55	0.28	49
Superfund Proximity (site count/km distance)	0.067	0.097	59	0.15	47	0.13	52
RMP Proximity (facility count/km distance)	0.053	0.39	7	0.99	3	0.74	5
Hazardous Waste Proximity (facility count/km distance)	1.6	3.2	45	5.3	28	5	59
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	N/A	37	N/A	18	N/A	9.4	N/A
Demographic Indicators							
Demographic Index	51%	50%	51	46%	58	36%	74
People of Color Population	70%	78%	26	60%	58	39%	78
Low Income Population	33%	23%	80	33%	56	33%	57
Linguistically Isolated Population	0%	6%	26	8%	20	4%	45
Population With Less Than High School Education	5%	8%	44	16%	27	13%	32
Population Under 5 years of age	8%	6%	75	6%	72	6%	74
Population over 64 years of age	6%	17%	8	14%	15	15%	12

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

Exhibit 17: Draft EA Consultation Letters and Response Letters

DAVID Y. IGE
GOVERNOR OF HAWAII

ELIZABETH A. CHAR, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:

September 22, 2022

Ms. Rachel Okoji, President
Environmental Risk Analysis LLC
905 A Makahiki Way
Honolulu, Hawaii 96826
Attn: 85-5607 Ke Ala O Keawe Rd.
via Email: gabrielle@enviroriskhawaii.com

Dear Ms. Okoji:

Subject: Environmental Assessment - New Residence
After-the-Fact (ATF) Demolition of Shack Building and
Construction of New Single Family Dwelling
84-5607 Ke Ala O Keawe Road, Honaunau, Hawaii 96704
TMK (3) 8-4-013: 016

Thank you for allowing us the opportunity to provide comments for the subject Environmental Assessment.

Although we do have an existing Cesspool Record, Permit ID 69229, for the subject property that apparently served the former Shack Building, this cesspool is no longer considered valid and/or approved for use once the former Shack Building was demolished. To obtain the Department of Health's ATF approval for the newly constructed single-family dwelling, an individual wastewater system (IWS) shall be designed and constructed in accordance with Hawaii Administrative Rules, Chapter 11-62, Wastewater Systems. The approval for the IWS shall be required to be obtained prior to consideration of any ATF building permit application for this new single-family dwelling.

All wastewater systems shall comply with the applicable provisions of the HAR, Chapter 11-62, "Wastewater Systems." Please be informed that the design plans should address any effects associated with the construction of and/or discharges from the wastewater systems to any public trust, Native Hawaiian resources or the exercise of traditional cultural practices.

The project shall connect to the County sewer system should it become available to the area.

Should you have any questions, please call Mr. Mark Tomomitsu of my staff at (808) 586-4294.

Sincerely,

SINA PRUDER, P.E., CHIEF
Wastewater Branch

LM/MST:lmj

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

Oct 18, 2022

MEMORANDUM

FROM: **DLNR Agencies:**
X Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
___Div. of Boating & Ocean Recreation
X Engineering Division (DLNR.ENGR@hawaii.gov)
X Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
___Div. of State Parks
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Hawaii District (gordon.c.heit@hawaii.gov)

TO: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Environmental Assessment for After-the-Fact Demolition and Construction of **New Residence**
LOCATION: **84-5807 Ke Ala O Keawe Road**, Honaunau, Island of Hawaii; TMK: (3) 8-4-013:016
APPLICANT: Environmental Risk Analysis

Transmitted for your review and comment is information on the above-referenced subject matter. The Consultant has granted an extension for our review and comments, therefore, please submit any comments by **November 9, 2022.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed: *Lainie Berry*
Print Name: LAINIE BERRY, Wildlife Program Mgr.
Division: Division of Forestry and Wildlife
Date: Nov 3, 2022

Attachments
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

November 3, 2022

MEMORANDUM *Log no. 3860*

TO: RUSSELL Y. TSUJI, Land Administrator
Land Division

FROM: LAINIE BERRY, Wildlife Program Manager
Division of Forestry and Wildlife

SUBJECT: **Division of Forestry and Wildlife Comments for an Environmental Assessment (EA) for the After-the-Fact Demolition and Construction of a Single-Family Residence at 84-5807 Ka Ala O Keawe Road in Honaunau on Hawai‘i Island**

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your request for comments for an EA associated with the after-the-fact demolition of an existing structure and construction of a new single-family residence located at 84-5807 Ke Ala O Keawe Road, Honaunau, on the island of Hawai‘i; TMK: (3) 8-4-013:016. The proposed project consisted of demolishing an existing single-story structure (“shack”) that was in poor condition to then develop a single-story two-bedroom dwelling. The EA is needed for the After-the-Fact Conservation District Use Permit Application required for the project due to the location of the parcel in the State Land Conservation District.

The State listed Hawaiian Hoary Bat or ‘Ōpe‘ape‘a (*Lasiurus cinereus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should also be avoided for any construction because bats can become ensnared and killed by such fencing material during flight.

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing them to become disoriented. This disorientation can result in their collision with manmade structures or the grounding of birds. For nighttime work that might be required, DOFAW recommends that all lights used to be fully shielded to minimize the attraction of seabirds. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season, from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea. Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. For illustrations and guidance related to seabird-friendly light styles that also protect seabirds and the dark starry skies of Hawai‘i, please visit https://dlnr.hawaii.gov/wildlife/files/2016/03/ DOC439.pdf.

State-listed waterbirds such as the Hawaiian stilt (*Himantopus mexicanus knudseni*), Hawaiian coot (*Fulica alai*), Hawaiian Duck (*Anas wyvilliana*), and Hawaiian Goose (*Branta sandvicensis*) could potentially occur at or in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any of these species are present during construction, then all activities within 100 feet (30 meters) should cease, and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the Hawai‘i Island Branch DOFAW Office at (808) 974-4221.

The State listed Hawaiian Hawk or ‘Io (*Buteo solitarius*) may occur in the project vicinity. DOFAW recommends surveying the area to ensure no Hawaiian Hawk nests are present if trees are to be cut. ‘Io nests may be present during the breeding season from March to September.

The project area is within the range of the State listed Blackburn’s Sphinx Moth (*Manduca blackburni*) or BSM. Larvae of BSM feed on many nonnative hostplants that include tree tobacco (*Nicotiana glauca*), which grows in disturbed soil. We recommend contacting the Hawai‘i Island Branch DOFAW office at (808) 974-4221 for further information about where BSM may be present and whether a vegetation survey should be conducted to determine the presence of plants preferred by BSM. DOFAW recommends removing plants less than one meter in height or during the dry time of the year to avoid harm to BSM. If you intend to either remove tree tobacco over one meter in height or to disturb the ground around or within several meters of these plants, they must be thoroughly inspected by a qualified biologist for the presence of BSM eggs and larvae.

DOFAW recommends using native plant species for landscaping that are appropriate for the area (i.e., climate conditions are suitable for the plants to thrive, historically occurred there, etc.). Please do not plant invasive species. DOFAW also recommends referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and for consulting the Hawai‘i-Pacific Weed Risk Assessment to determine the potential invasiveness of plants proposed for use in the project.

DOFAW recommends minimizing the movement of plant or soil material between worksites. Soil and plant material may contain invasive fungal pathogens (e.g., Rapid ‘Ōhi‘a Death), vertebrate and invertebrate pests (e.g., Little Fire Ants, Coqui Frogs), or invasive plant parts that could harm our native species and ecosystems. We recommend consulting the Big Island Invasive Species Committee (BIISC) at (808) 933-3340 to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Paul Radley, Protected Species Habitat Conservation Planning Coordinator at (808) 295-1123 or paul.m.radley@hawaii.gov.

Sincerely,

Lainie Berry

LAINIE BERRY
Wildlife Program Manager

DAVID Y. IGE
GOVERNOR

KEITH T. HAYASHI
SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

OFFICE OF FACILITIES AND OPERATIONS

October 13, 2022

Rachel Okoji, President
Environmental Risk Analysis LLC
905A Makahiki Way
Honolulu, Hawaii 96826

Re: Environmental Assessment
84-5807 Ke Ala O Keawe Road – New Residence, TMK (3)8-4-013:016

Dear Ms. Okoji:

Thank you for your letter we received on September 22, 2022. Based on the information provided, the proposed project will not impact Hawaii State Department of Education facilities.

Thank you for the opportunity to comment. Should you have any questions, please contact Cori China of the Facilities Development Branch, Planning Section, at (808) 784-5080 or via email at cori.china@k12.hi.us.

Sincerely,

Roy Ikeda
Interim Public Works Manager
Planning Section

RI:ctc

c: Facilities Development Branch

DAVID Y. IGE
GOVERNOR

JADE T. BUTAY
DIRECTOR

Deputy Directors
ROSS M. HIGASHI
EDUARDO P. MANGLALLAN
DAVID J. RODRIGUEZ
EDWIN H. SNIFFEN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

DIR 0895
HWY-PS 2.9979

October 28, 2022

VIA EMAIL: gabrielle@enviroriskhawaii.com

Ms. Rachel Okoji
Environmental Risk Analysis LLC
905A Makahiki Way
Honolulu, Hawaii 96826

Dear Ms. Okoji:

Subject: Request for Comments for Early Consultation
Single-Family Residence
84-5807 Ke Ala O Keawe Road - Honaunau, Hawaii
Tax Map Key: (3) 8-4-013: 016

Thank you for your letter dated September 14, 2022, requesting our comments for the preparation of an upcoming Draft Environmental Assessment (DEA). Your letter mentioned that this is to evaluate potential requirements by Chapter 343, Hawaii Revised Statutes related to construction and development of residential parcels.

The proposed work includes an after-the-fact demolition of an existing single-story structure and the construction of a single-family dwelling. The project site is directly accessible on Ke Ala O Keawe Road, Route 160, which is under the County jurisdiction as of 2022 transfer from the State of Hawaii.

The proposed project does not appear to have any potential impacts on the nearby state highway facilities.

If you have any questions, please contact Jeyan Thirugnanam, Systems Planning Engineer, Highways Division, Planning Branch at (808) 587-6336 or by email at jeyan.thirugnanam@hawaii.gov. Please reference file review number PS 2022-165.

Sincerely,

JADE T. BUTAY
Director of Transportation

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

Oct 18, 2022

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
___Div. of Boating & Ocean Recreation
X Engineering Division (DLNR.ENGR@hawaii.gov)
X Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
___Div. of State Parks
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Hawaii District (gordon.c.heit@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Environmental Assessment for After-the-Fact Demolition and Construction of **New Residence**
LOCATION: **84-5807 Ke Ala O Keawe Road**, Honaunau, Island of Hawaii; TMK: (3) 8-4-013:016
APPLICANT: Environmental Risk Analysis

Transmitted for your review and comment is information on the above-referenced subject matter. The Consultant has granted an extension for our review and comments, therefore, please submit any comments by **November 9, 2022.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
(☑) We have no comments.
( ) We have no additional comments.
( ) Comments are included/attached.

Signed: _____
Print Name: Brian J. Neilson- Administrator
Division: Aquatic Resources
Date: Oct 24, 2022

Attachments
cc: Central Files

DAVID Y. IGE
GOVERNOR OF
HAWAII

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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: 10/20/2022
DAR # AR0255

MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Nicole Smith, Aquatic Biologist

SUBJECT: Environmental Assessment

Request Submitted by: Rachel Okoji, Environmental Risk Analysis, LLC

Location of Project: 84-5807 Ke Ala O Keawe Road - New Residences
TNK: (3) 8-4-013:016, Honaunau, Hawaii

Brief Description of Project:

Environmental Risk Analysis LLC is conducting an Environmental Assessment to evaluate potential environmental impacts associated with the after-the-fact demolition of an existing "shack" and construction of a one-story single-family residence on real property identified as tax map key (TMK) (3) 8-4-013:016 in Honaunau, Hawaii on the island of Hawaii.
The proposed action includes the after-the-fact demolition of a single-story structure and construction of a single-story structure. The structure demolished was in poor condition and would not comply with current building or energy codes. The new development includes a single-story two-bedroom dwelling.

Comments:

☒ No Comments ☐ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: _____ Date: Oct 24, 2022

Brian J. Neilson
DAR Administrator

DAR# AR0255

Brief Description of Project

The structure complies with all floor area, building area, building heights, setbacks, and parking regulations established by the land use ordinance. The environmental Assessment is needed for the After-the- Fact Conservation District Use Permit Application (AFT-CDUA) required for the project due to the location of the parcel in the State Land Conservation District.

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

Oct 18, 2022

MEMORANDUM

FROM: ~~TO:~~ **DLNR Agencies:**
_X_ Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
___ Div. of Boating & Ocean Recreation
_X_ Engineering Division (DLNR.ENGR@hawaii.gov)
_X_ Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
___ Div. of State Parks
_X_ Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
_X_ Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
_X_ Land Division – Hawaii District (gordon.c.heit@hawaii.gov)

TO: ~~FROM:~~ Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Environmental Assessment for After-the-Fact Demolition and Construction of **New Residence**
LOCATION: **84-5807 Ke Ala O Keawe Road**, Honaunau, Island of Hawaii; TMK: (3) 8-4-013:016
APPLICANT: Environmental Risk Analysis

Transmitted for your review and comment is information on the above-referenced subject matter. The Consultant has granted an extension for our review and comments, therefore, please submit any comments by **November 9, 2022.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed: CC
Print Name: Carty S. Chang, Chief Engineer
Division: Engineering Division
Date: Nov 3, 2022

Attachments
cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji

Ref: Environmental Assessment for After-the-Fact Demolition and Construction of New Residence
Location: 84-5807 Ke Ala O Keawe Road, Honaunau, Island of Hawaii
TMK(s): (3) 8-4-013:016
Applicant: Environmental Risk Analysis

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). Be advised that 44CFR, Chapter 1, Subchapter B, Part 60 reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood zones subject to NFIP requirements are identified on FEMA's Flood Insurance Rate Maps (FIRM). The official FIRMs can be accessed through FEMA's Map Service Center (msc.fema.gov). Our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT) could also be used to research flood hazard information.

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139.
- Kauai: County of Kauai, Department of Public Works (808) 241-4849.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: Nov 3, 2022

11/02/22

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

Oct 18, 2022

MEMORANDUM

TO: **DLNR Agencies:**
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_X_ Engineering Division (DLNR.ENGR@hawaii.gov)
_X_ Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
___ Div. of State Parks
_X_ Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
_X_ Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
_X_ Land Division – Hawaii District (gordon.c.heit@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Environmental Assessment for After-the-Fact Demolition and Construction of **New Residence**
LOCATION: **84-5807 Ke Ala O Keawe Road**, Honaunau, Island of Hawaii; TMK: (3) 8-4-013:016
APPLICANT: Environmental Risk Analysis

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If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
(✓) We have no comments.
( ) We have no additional comments.
( ) Comments are included/attached.

Signed: _____
Print Name: GORDON C. HEIT
Division: Land Division
Date: 11/04/22

Attachments
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

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

RECEIVED
LAND DIVISION
2022 OCT 31 PM 1:01
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

RECEIVED
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AND COASTAL LANDS
2022 OCT 19 P 2:19
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Oct 18, 2022

MEMORANDUM

TO: **DLNR Agencies:**
_X_ Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
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FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Environmental Assessment for After-the-Fact Demolition and Construction of **New Residence**
LOCATION: **84-5807 Ke Ala O Keawe Road**, Honaunau, Island of Hawaii; TMK: (3) 8-4-013:016
APPLICANT: Environmental Risk Analysis

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If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

We have already provided the landowner & their agent our comments regarding the subject matter. See attached letters.

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed: _____
Print Name: Trevor Fitzpatrick
Division: OCCL
Date: 10/28/2022

Attachments
cc: Central Files

Mitchell D. Roth
Mayor

Lee E. Lord
Managing Director

West Hawai'i Office
74-5044 Ane Keohokālole Hwy
Kailua-Kona, Hawai'i 96740
Phone (808) 323-4770
Fax (808) 327-3563

RECEIVED
OFFICE OF CONSERVATION
AND COASTAL LANDS
2022 OCT 19 P 2:05
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

Zendo Kern
Director

Jeffrey W. Darrow
Deputy Director

East Hawai'i Office
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
Phone (808) 961-8288
Fax (808) 961-8742

County of Hawai'i
PLANNING DEPARTMENT

October 17, 2022

Sheri Parish-Hamilton
P.O. Box 5004
Kailua-Kona, HI 96745

Dear Ms. Parish-Hamilton:

SUBJECT: **Special Management Area (SMA) Assessment Application (SAA-21-001814)**
Special Management Area Minor Permit (PL-SMM-2021-000001)
Applicant(s): **Sheri Parish-Hamilton**
Landowners: **Sheri Parish-Hamilton**
Subject: **Time Extension for Condition No. 3 (DLNR Permit)**
TMK: **(3) 8-4-013:016, S. Kona District, Island of Hawai'i**

This is to acknowledge receipt of your August 12, 2022, correspondence requesting a one (1) year time extension to comply with Condition No. 3 (obtain DLNR permit) of Special Management Area Minor Permit PL-SMM-2021-000001. The subject SMA minor permit was approved on August 16, 2021, to allow for the "after-the-fact" reconstruction of a single-family residence; staff notes the entire parcel is located within the State Land Use Conservation District.

Time Extension:

Condition No. 3 of PL-SMM-2021-000001 states the following:

- *The Applicant shall secure a Conservation District Use Permit (CDUP) from the DLNR Office of Conservation and Coastal Lands within one (1) year from the date of this letter. The Applicant shall provide a copy of the CDUP to the Planning Department when completed.*

The applicant has been delayed by the unforeseen requirement to complete an Environmental Assessment (EA) in order to obtain the required CDUP. The EA is in progress and the applicant is working with the DLNR to complete the approval for the stated project.

Determination:

As the non-performance of Condition No. 3 is the result of conditions that could not have been foreseen and were beyond the control of the Applicant, a one (1) year time extension to **August 16, 2023,** is approved.

Please note, however, that it is the responsibility of the landowners to read and comply with all conditions listed in PL-SMM-2021-000001. Any substantive changes to the project as proposed in PL-SMM-2021-000001 or once the EA is complete will require further review and approval as provided under Hawaii Revised Statutes (HRS) Chapter 205A, and Rule 9, *Planning Commission Rules of Practice and Procedure.*

If you have questions, please contact Alex J. Roy of this department at (808) 961-8140 or via email at Alex.Roy@hawaiicounty.gov.

Sincerely,

Zendo Kern
Zendo Kern (Oct 17, 2022 13:03 HST)

ZENDO KERN
Planning Director

AJR:mads
P\Wpwin60\CZM\SMM\2021\PL-SMM-2021-000001_TE_Cond_3.Doc

cc via email: DLNR - OCCL

DAVID Y. IGE
GOVERNOR OF HAWAI'I

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

ROBERT K. MASUDA
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STATE PARKS

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

REF: OCCL: TF

ENF: HA 20-21

Aug 1, 2022

Onaona P. Thoene, Esq.
Carlsmith Ball LLP
1001 Bishop Street, ASB Tower Suite 2100
Honolulu, HI 96813

SUBJECT: Conservation District Enforcement HA 20-21 Regarding an Unpermitted Residence and Use of a Single Family Residence as a Transient Rental Located in the Conservation District
Located at 84-5607 Ke Ala O Keawe Road
Honaunau Beach Lots, South Kona, Hawai'i
Tax Map Key (TMK): (3) 8-4-013:016

Dear Ms. Thoene:

The Office of Conservation and Coastal Lands (OCCL) has reviewed your letter (on behalf of your client Ms. Sheri Parish-Hamilton) dated July 1, 2022, and attachments regarding the subject matter. According to your letter, your client is seeking clarification regarding the need for an Environmental Assessment (EA) as well as the need for the after-the-fact Conservation District Use Application (ATF CDUA) to include a request for deviation from the current setback rules for single-family residences in the Conservation District.

TMK: (3) 8-4-013:016 lies in the Limited Subzone of the State Land Use Conservation District. On February 14, 2020, the Board of Land and Natural Resources (Board) found the landowner in violation of Hawaii Revised Statutes (HRS) §183C and Hawaii Administrative Rules (HAR) §13-5 in regards to the unauthorized construction of a single-family residence without prior approval and use of the subject property and associated single-family residence as a transient vacation rental within the State Land Use Conservation District. The Board imposed fourteen (14) conditions for the landowner to comply with to resolve the matter. Condition #9 states: *That the landowner files a complete after-the-fact CDUA with DLNR and OCCL in accordance with HAR §13-5 and all requested attachments within ninety (180) days from the date of the Board's action.*

Staff has reviewed the audio recording of the February 14, 2020, Board meeting. The OCCL notes that one of the Board members did mention that the Department may want to consider looking favorably upon not requiring an EA as part of the ATF CDUA.

County of Hawaii Field Books indicate that the structure was 396 sq. ft in 1976. The unauthorized demolition, reconstruction, and alterations Ms. Hamilton made to the structure resulted in a significantly larger SFR, with an estimated building footprint of 2,195 to 2,408 sq. ft. It appears that "major alteration" as defined in HAR § 13-5-2 or work done to an existing structure that results in more than 50% increase in the size of the structure has taken place. Therefore, the existing unauthorized structure does not have the same capacity, density, height, and dimensions as the structure replaced. The exemption cited in your letter is inapplicable in this case.

Again, we remind you pursuant to the Hawaii Revised Statutes (HRS) Chapter 343 **Applicability and requirements.** (a) Except as otherwise provided, an environmental assessment shall be required for actions that: (2) Propose any use within any land classified as a conservation district by the state land use commission under chapter 205.

The OCCL reiterates the ATF CDUA for a single-family residence on the parcel that lies within the Limited Subzone of the Conservation District shall include a Draft EA in compliance with HRS Chapter 343. HAR §13-5-31 Permit applications. indicates an EA shall be contained in the application, and the Conservation District Use Application (CDUA) also requires a Draft or a Final EA as there appears to be no applicable exemption. Your client's future submission of an ATF CDUA for single-family residence on TMK: (3) 8-4-013:016 shall include a Draft EA in compliance with HRS Chapter 343 and HAR Chapter 11-200.1.

Regarding your letter's statement that the current setback rules were not in effect when your client bought the property, the OCCL reiterates that the rules are not retroactive to when a property was purchased. As noted in OCCL's February 1, 2022, letter; the setback rules for single-family residences in the Conservation District were in place when your client purchased the property; and thus, the reconstructed home would have needed to comply with the 15ft setbacks.

Since your client appears to be applying now, the proposed ATF CDUA for the single-family residence will need to conform to the current version of HAR Chapter 13-5 and Exhibit 4. The ATF CDUA should clearly explain why your client is seeking a deviation from the rules with regards to the 15ft setbacks and why the Board should consider their request. Alternatively, your client may want to consider removing the portions of the structure that are encroaching into the setback to bring the home into compliance if she does not wish to pursue a deviation request.

The OCCL's February 1, 2022, letter noted that the Maximum Developable Area (MDA) for a single-family residence on TMK: (3) 8-4-013:016 is 2,178 sq. ft. It also noted that the submitted as-built plans did not identify the square footages for the living areas and exterior decks of the single-family residence and omitted the staircases, concrete lanais, outdoor shower, outdoor restroom and storage, and covered BBQ area. The OCCL reiterates its request that your client include these land use improvements in a future

submission for the total floor area and that the single-family residence conforms to the 2,178 sq. ft MDA for the parcel. It also appears that the submitted as-built plans did not include a scale of measurement. Please ensure that plans submitted as part of the ATF CDUA and its Draft EA include a scale of measurement.

Should you have any questions, contact Trevor Fitzpatrick of the Office of Conservation and Coastal Lands at trevor.j.fitzpatrick@hawaii.gov .

Sincerely,

S Michael Cain

Michael Cain, Administrator
Office of Conservation and Coastal Lands

CC: Chairperson
Hawaii Board Member
HDLO
County of Hawaii, Department of Planning

DAVID Y. IGE
GOVERNOR OF HAWAI'I

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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

REF: OCCL: TF

CDUA: HA-3887

FEB - 1 2022

Onaona P. Thoene, Esq.
Carlsmith Ball LLP
1001 Bishop Street, ASB Tower Suite 2100
Honolulu, HI 96813

SUBJECT: Conservation District Use Application (CDUA) for an After-the-Fact Single-Family Residence
Located at 84-5607 Ke Ala O Keawe Road,
Honaunau Beach Lots, South Kona, Hawai'i
Tax Map Key (TMK): (3) 8-4-013:016

Dear Ms. Thoene:

The Office of Conservation and Coastal Lands (OCCL) has reviewed your client's After-the-Fact Conservation District Use Application (ATF CDUA) submitted as part of the resolution for ENF: HA 20-21 regarding the unauthorized demolition, reconstruction, and alterations made to the single-family residence (SFR) on TMK: (3) 8-4-013:016. The parcel lies in the Limited Subzone of the State Land Use Conservation District. After reviewing you client's ATF CDUA, the application appears to be incomplete, and OCCL is not accepting it for processing at this time.

The application is being submitted to resolve Enforcement Case HA 20-21, which was heard by the Board on February 14, 2020. A condition of the case is that the landowner secure a Conservation District Use Permit (CDUP) for the residence.

The landowner appears to be applying for the residence under Hawaii Administrative Rules (HAR) §13-5-22 P-3 KULEANA LAND USES (D-1) *Agriculture and a single family residence, if applicable, when such land use was historically, customarily, and actually found on the property. Agriculture means the planting, cultivating, and harvesting of horticultural crops, floricultural crops, or forest products, and subsistence livestock.* The proposed use(s) requires the filing of a CDUA for a Board Permit along with all required attachments. The Board has the final authority to modify, grant, or deny the permit.

An application for a land use under this section requires that a landowner show evidence that the SFR was historically, customarily, and actually found on the parcel (see HAR, §13-

(3)

5-31 PERMIT APPLICATIONS (f) (8)). Pursuant to this section, the burden of proving that a parcel of land is a kuleana parcel rests with the applicant. The application shall contain:

(1) Deed of the property;
(2) Land Commission Award (LCA) number;
(3) Land Patent Grant documentation;
(4) Documentation showing current ownership of the kuleana;
(5) Tax Map Key number;
(6) Documentation showing the modern metes and bounds of the kuleana;
(7) Identification of legal access to the kuleana; and
(8) Identification and documentation of uses to which the kuleana land was historically, customarily, and actually found on the particular lot including, if applicable, a SFR.

The OCCL also requested that these documents be clearly labeled with their relation to the list mentioned above and subsection (f) of HAR, §13-5-31. Recycling and attaching the Staff Report (or portions of it) submitted to the Board of Land and Natural Resources (BLNR) in ENF: HA 20-21 is not acceptable.

While the OCCL has previously noted and recognized the parcel as a kuleana parcel. We do not recognize it as a non-conforming use, as noted in prior correspondences.

Single family residences in the Conservation District need to comply with the conservation criteria found in Section 30, as well as the Single Family Residential Standards found in Exhibit 4. According to Exhibit 4 Single Family Residential Standards, the Maximum Developable Area (MDA) means *the total floor area in square feet allowed under the approved land use. The floor area computation shall include: all floor areas under roof, including first, second, and third story areas, decks, pools, saunas; garage or carport, and other above ground structures.* The MDA for the parcel is 2,178 sq. ft. Staff notes that the attached as-built plans do not identify the square footages for the living areas and exterior decks. They also do not appear to include the staircases, concrete lanais, outdoor shower, outdoor restroom and storage, and covered BBQ area. Please site and label the square footages of these areas and improvements in your plans.

Please also include these improvements in your total floor area/MDA calculations for the SFR. You may also want to consider including a table in the site and floor plans that clearly identifies these areas and their relationship to the SFR's total developable area and MDA.

In the same section, the application notes that the side setbacks are 8ft, in compliance with County Code. Lands in the State Land Use Conservation District are under the jurisdiction of the State of Hawaii Department of Land and Natural Resources, which mandate 15-foot setbacks on the front, sides, and back of the parcel. The setback rules were in place when your client bought the property. Rules are not retroactive to when a property was purchased.

If your client is seeking a deviation from the rules, the application should clearly state the reasons for the Board to consider their request. Pursuant to HAR, §13-5-41 Single family residences. (a) *Single family residential uses approved by the board shall comply with the design standards contained in Exhibit 4, entitled "Single Family Residential Standards: August 12, 2011", located at the end of this chapter and made a part of this section, except as may be allowed by the board upon finding that prevailing conditions warrant the deviation from specific standards, and upon finding that the deviation is consistent with the criteria and conditions set forth in this chapter. Deviation from any of the standards shall be limited to fifteen per cent.*

OCCL also has concerns with the responses under the "existing conditions" section of the application:

"Existing utilities:" the CDUA states that existing utilities include electric but does not clarify how the property and SFR are being served by electricity. Please clarify. Additionally, the site plan attached to the CDUA sites an existing cesspool on the parcel. Has Ms. Hamilton consulted with the Department of Health regarding the status of the cesspool? The OCCL's previous letter to Ms. Hamilton requested DOH approvals for the parcel's cesspool/wastewater treatment system. Additionally, Act 125 was passed during the 2017 legislative session and it requires the replacement of all cesspools by 2050. What is the status of Ms. Hamilton's compliance with Act 125, DOH regulations, and the parcel's cesspool or individual wastewater system?

In the "Physiography (geology, topography, & soils)" section of the CDUA, the application states "Slight grade sandy soil and mostly level grass surrounds the SFR outcrops of salt pohaku (rocks) on the East and North sides of the Property in pahoehoe areas". According to the USDA Web Soil Survey (https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm), it appears that "Lava flows – Punaluu complex" underly the parcel. This section also does not discuss the elevation range of the property or how high the parcel is above mean sea level. Please improve your response and include references.

In the "Flora & fauna" section the CDUA states that "No rare or endangered flora or fauna species have been identified on the Property". What studies have been conducted and by whom to support this statement? Are there rare or endangered species that might be found near or over-fly the property? If rare or endangered species are near or over-fly the property, how did or does your client propose to mitigate any potential impacts to these species? Please improve your response and include references.

In the "Natural hazards" section, the CDUA states the property is not located in a flood zone, but no map is attached. Please attach a flood zone map for the property as well as a sea level rise map. If the property becomes impacted by sea level rise, what is Ms. Hamilton proposing to do? What volcanic hazard zone is the property located in? Please improve your response and include references.

In the "Historic & cultural" section, the application notes that the property includes an "imu" and "original rock walls along its boundaries" as well as "a few salt puka rocks". Please site these features in the plans. The OCCL had requested that the CDUA include a well-researched discussion of the historical and cultural significance and resources found in the Honaunau area and their relationship to Ms. Hamilton's property. Based upon the information included in your application, there appears to be historic properties and archaeological features present. Pursuant to HRS 6E, it appears that HRS 6E submittal form and all required attachments will need to be included with the CDUA. The OCCL suggests that you and your client contact the State Historic Preservation Division (SHPD) at (808) 692-8015 for further assistance or guidance relating to this matter.

In "Evaluation Criteria," question Number 3, the application notes "The SFR located on the Property has been built and restored in compliance with the County code". According to OCCL files, no applications or authorizations were received or granted for the demolition and reconstruction of the structure. A cursory review with County of Hawaii Staff also indicates no authorizations were or have been obtained for the previous structure or the reconstructed SFR with the exception of the SMA Minor Permit submitted with the CDUA. If Ms. Hamilton has obtained authorizations for the SFR, you may want to submit that evidence with the CDUA.

County of Hawaii Field Books indicate that the structure was 396 sq. ft in 1976. The unauthorized demolition, reconstruction, and alterations Ms. Hamilton made to the structure resulted in a significantly larger SFR, with an estimated building footprint of 2,195 to 2,408 sq. ft – ATF CDUA living area of 1,473 sq. ft).

An Environmental Assessment is required pursuant to HRS **§343-5 Applicability and requirements.** (a) (2) *Propose any use within any land classified as a conservation district by the state land use commission under chapter 205*; and therefore, it appears that a future ATF CDUA for a SFR on TMK: (3) 8-4-013:016 will need to include a Draft Environmental Assessment in compliance with HRS Chapter 343 and HAR Chapter 11-200.1.

Based on the above, the OCCL is rejecting your client's After-the-Fact CDUA for a single-family residence. Additionally, we are returning your CDUA application fee check (check #534) in the amount of $2,500.00. Please make arrangements with our office to have the copies of your CDUA picked up within thirty (30) days. The OCCL will keep one (1) copy of the ATF CDUA HA-3887 for our files.

Should you have any questions regarding this matter, contact Trevor Fitzpatrick of our Office at (808) 798-6660 trevor.j.fitzpatrick@hawaii.gov .

Sincerely,

S Michael Cain

Michael Cain, Acting Administrator
Office of Conservation and Coastal Lands

CC: *Chairperson*
Hawaii Board Member
HDLO
County of Hawaii, Department of Planning

DAVID Y. IGE
GOVERNOR OF HAWAI'I

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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHO'OLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

REF: OCCL: TF

ENF: HA 20-21

JUL 21 2020

Ms. Sheri Parish-Hamilton
PO Box 5004
Kailua-Kona, HI 96745

SUBJECT: Conservation District Enforcement HA 20-21 Regarding an Unpermitted Residence and Use of a Single Family Residence as a Transient Rental Located in the Conservation District
Located at 84-5607 Ke Ala O Keawe Road, Honaunau Beach Lots, South Kona, Hawai'i
Tax Map Key (TMK): (3) 8-4-013:016

Dear Ms. Parish-Hamilton:

The Office of Conservation and Coastal Lands (OCCL) thanks you for your letter and attachments. Attached is a copy of ENF HA 20-21 and its resolution conditions signed by you on February 21, 2020. The OCCL notes that a payment installment plan for the fines levied against the landowner was not approved as part of the proposed settlement of ENF HA 20-21, but given the current uncertainty surrounding the COVID19 pandemic, our office is willing to accept installments for the payment of all designated fines and administrative costs. Staff notes that a cashier check in the amount $3,000.00 was applied to the fines and administrative costs levied by the Board of Land and Natural Resources (BLNR) on February 14, 2020 totaling $13,000.00 leaving a remaining outstanding balance of **$10,000.00** to be paid by the landowner. A copy of the receipt is attached. Please inform the OCCL of how and by when you intend to pay the remaining balance.

Regarding the declaration and recording it in recordable form stating that you will not carry out any future transient rental activity on the property, the declaration and its recordation is something you will need to research, create, and record. The OCCL suggests contacting the Bureau of Conveyances (BOC, 587-0147) regarding this matter. You may want to provide a draft of the declaration to OCCL to ensure it satisfies staff after you have consulted with the BOC and prior to having the document recorded.

The OCCL also notes that in your letter you state that all advertisements associated with the subject property and single-family residence have been removed from websites that promote transient rental accommodations. However, a google search for "Hale Maka I'o" continues to show the property listed as a place of lodging with a contact number and address for the home. Additionally, you have

not provided the Department of Land and Natural Resources (DLNR) and OCCL with all applicable documentation that would demonstrate that conditions #5, #6, and #7 have satisfactorily been performed in accordance with condition #8 of ENF: HA 20-21, nor have you demonstrated that the conditions of enforcement file HA 20-21 have been recorded with the deed instrument pursuant to condition #14 and Hawai'i Administrative Rules (HAR), §13-5-6(e). You will need to comply with these conditions as well as pay all fines and administrative costs as decided by the BLNR with regards to ENF HA 20-21 within 180 days of the BLNR's decision on February 14, 2020. Otherwise, the OCCL will be forced to bring this matter before the BLNR again.

Regarding your After-the-Fact Conservation District Use Application (CDUA) for a single-family residence, your application does not appear to fulfill our needs. Staff notes that the architectural drawings and plans that you submitted as part of your CDUA were prepared in 2003 and that you stated in your application that the improvements to the property and structure were carried out during the period of 2007 to 2010. These drawings and plans are too old and insufficient. The OCCL is requesting that your After-the-Fact CDUA for a single-family include current as-built plans for the property and structure. The required documents include a colored location map, site plans, floor plans, elevations, and landscaping plans all drawn to scale and will need to document such details as the square footage of the improvements, setbacks as they are currently found for the structure and property, the height of the home, and location of utilities (including an individual wastewater treatment system and any Department of Health approvals for the system) or any other improvements that you have made to the property that are currently found there. Additionally, please include high resolution colored photos of the property and structure as they are currently found on the parcel. The property with the TMK: (3) 8-4-013:016 does have a Maximum Developable Area (MDA). Please refer to Exhibit 4 of HAR, §13-5 for further guidance and note this development regulation regarding single-family residences in the Conservation District on your CDUA.

Your application also states that there has been and is agriculture being conducted on the property; however, this is not entirely clear to staff. If you are or will be conducting agricultural land uses on the property, please clearly indicate this in your application and include a more supportive documentation of such use with a detailed description of the type of agriculture that has or will be carried out on the property as well as an Agricultural Management Plan in accordance with HAR, §13-5-39 MANAGEMENT PLAN APPROVALS and Exhibit 3 Management Plan Requirements. Based on the documentation and information you have provided; it does not appear that the property was historically, customarily, and actually used for agriculture nor does it appear that resources in the area exist to have supported agriculture on the parcel in the past.

If you are only conducting landscaping uses on the property, please indicate so and provide a detailed description of the plants that are found on the property as well as any supportive improvements such as irrigation in your CDUA and its landscape plan. Please note that the OCCL requests that all landscaping improvements shall be appropriate to the site location and preference be given to plant materials that are endemic or indigenous to Hawai'i. The introduction of invasive plant species in the Conservation District is prohibited.

The OCCL notes that the property appears to be in the County of Hawaii Special Management Area (SMA); and therefore, you will need to address the Chapter 205A – Coastal Zone Management

section of the CDUA. The OCCL also requests that you obtain a SMA Determination regarding your single-family residence in the SMA from the County of Hawaii prior to re-submitting your After-the-Fact CDUA.

The OCCL understands that the Honaunau area is of great historical and cultural significance and resources. Please include a well-researched discussion of these historical and cultural resources found in the Honaunau area and their relationship to your property as well as if any documented or undocumented historical and cultural resources have been found on the property. Please include high resolution colored photos of any historical or cultural resources or features found on the property. The OCCL suggests that you contact the State Historic Preservation Division (SHPD) at 692-8015 for further assistance or guidance relating to this matter.

The OCCL notes and has recognized the parcel with the TMK: (3) 8-4-013:016 as a kuleana parcel. For your After-the-Fact CDUA purposes and accurate documentation for OCCL files, please ensure that your CDUA contains (1) the deed of the property, (2) the Land Commission Award (LCA) number, (3) the Land Patent Grant documentation, (4) documentation showing current ownership of the kuleana, (5) Tax Map Key, (6) documentation showing the modern metes and bounds of the kuleana, (7) identification of legal access to the kuleana, and (8) identification and documentation of uses to which the kuleana land was historically, customarily, and actually found on the particular lot in accordance with HAR, §13-5-31 PERMIT APPLICATIONS subsection (f). The OCCL requests that these documents are clearly labeled with their relation to the list mentioned above and subsection (f) of HAR, §13-5-31. Additionally, HAR, §13-5 does allow for the continuance and repair of structures in the Conservation District and on kuleana lands; however, you must consult with OCCL to see if any proposed new land uses or repairs to a structure including a single-family residence can be authorized. The single-family residence that is found on the parcel with the TMK: (3) 8-4-013:016 is no longer considered a nonconforming use as a result of the unauthorized demolition, reconstruction, and repairs you performed to the home. This does not appear to affect your right to have a single-family residence on the lot so long as the structure conforms to HAR, §13-5 and Exhibit 4.

You also have requested to use the single-family residence for long-term rental purposes in your CDUA. It bears repeating that the OCCL is unable to accept or process any new or future applications for any proposed land uses regarding the property with the TMK: (3) 8-4-013:016 and its single-family residence until you have complied with all of the conditions of ENF HA 20-21 as decided by the BLNR on February 14, 2020 and the enforcement file has been closed. Once you are in compliance, our office would be willing to discuss the potential requirements that would be needed for possibly using the property and single-family residence for long-term rental purposes. The OCCL is compelled to remind you that transient rentals are prohibited in the Conservation District. Your need to be in compliance with the conditions of ENF HA 20-21 also applies to your request for a boundary amendment for the property; however, this request will need to be coordinated with the State Land Use Commission after you are in compliance with the conditions of ENF HA 20-21.

Based on the above, the OCCL is rejecting your After-the-Fact CDUA for a single-family residence. The OCCL encourages you to consider hiring a licensed architect or consultant to help you navigate this process and fulfill these requirements. Additionally, we are returning your CDUA

application fee check (check #454) in the amount of $250.00. Please make arrangements with our office to have the copies of your CDUA picked up. For future reference, the appropriate application fee that you will need to submitted with your After-the-Fact CDUA for a single-family residence is $2,500.00.

Should you have any questions regarding this matter, contact Trevor Fitzpatrick of our Office at (808) 798-6660.

Sincerely,

Sam Lemmo

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

CC: Chairperson
Hawaii Board Member
HDLO
County of Hawaii, Department of Planning

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

REF: OCCL: TF

ENF: HA 20-21

CERTIFIED MAIL/RETURN RECEIPT
7019 0700 0001 4008 9255

FEB 18 2020

Ms. Sheri Parish-Hamilton
PO Box 5004
Kailua-Kona, HI 96745

SUBJECT: Conservation District Enforcement HA 20-21 Regarding an Unpermitted Residence and Use of a Single Family Residence as a Transient Rental Located in the Conservation District Located at 84-5607 Ke Ala O Keawe Road, Honaunau Beach Lots, South Kona, Hawai'i Tax Map Key (TMK): (3) 8-4-013:016

Dear Ms. Parish-Hamilton:

This is to inform you that on February 14, 2020, the Board of Land and Natural Resources (Board) amended the Staff Recommendations of agenda item K-2 and found the landowner in violation of HRS §183C and HAR §13-5 in regards to the unauthorized construction of a single-family residence without prior approval and use of the subject property and associated single-family residence as a transient vacation rental within the State Land Use Conservation District and is subject to the following:

1. That the landowner is fined $1,000.00 in one instance for violating the provisions of HRS §183C-7 and HAR §13-5 for the unauthorized construction of a single-family residence without prior approval in the Conservation District;

2. That the landowner is fined $10,000.00 in one instance for violating the provisions of HRS §183C-7 and HAR §13-5-42 for the use of the subject property and unauthorized single-family residence as a transient rental which is a non-identified and prohibited land use within the Conservation District;

3. That the landowner is fined an additional $2,000 for administrative costs associated with the subject violations;

4. That the landowner shall pay all designated fines and administrative costs ($13,000.00) within one hundred eighty (180) days from the date of the Board's action;

5. That the landowner ceases all transient rental activities on the subject property;

6. That the landowner removes all advertisements associated with the subject property and single-family residence from any websites that promote transient rental accommodations;

7. That the landowner signs a declaration stating that they will not carry out any future transient rental activities on the subject property and associated single-family residence and record the declaration in recordable form;

8. That the landowner provides DLNR and OCCL with all applicable documentation that would demonstrate that the above actions have satisfactorily been performed;

9. That the landowner files a complete after-the-fact CDUA with DLNR and OCCL in accordance with HAR §13-5 and all requested attachments within ninety (180) days from the date of the Board's action;

10. That the landowner shall be subject to additional fines in the event that DLNR and OCCL do not receive a complete after-the-fact CDUA from the landowner within one hundred eighty (180) days from the date of the Board's action;

11. That in the event of failure of the landowner to comply with any order herein, the landowner shall be fined an additional $15,000 per day until the order is complied with; and

12. That in the event of failure of the landowner to comply with any order herein, this matter shall be turned over to the Attorney General for disposition, including all administrative costs;

13. That in the event that the DLNR and OCCL find that the landowner has continued to conduct unauthorized land uses in the Conservation District or use the subject property and associated single-family residence for transient rental, rental, or commercial purposes, the permit will be revoked, and the landowner will be required to remove the single-family residence;

14. The above noted conditions of Enforcement file HA 20-21 shall be recorded with the deed instrument pursuant to HAR, §13-5-6(e).

All fines should be made payable to the **State of Hawaii**. Please acknowledge receipt of this letter, with the above noted conditions, in the space provided below. Please sign two copies. Retain one and return the other within 30 days. Should you have any questions regarding this matter, contact Trevor Fitzpatrick of our Office at (808) 587-0373.

Sincerely,

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

Receipt acknowledged:

_____ Date_____
Applicant's Signature

CC: Chairperson
Hawaii Board Member
HDLO
County of Hawaii, Department of Planning

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

Nov 9, 2022

Environmental Risk Analysis LLC
Attn: Ms. Rachel Okoji, President
905A Makahiki Way
Honolulu, Hawaii 96826

via email: rachelokoji@enviroriskhawaii.com
and via email: gabrielle@enviroriskhawaii.com

Dear Ms. Okoji:

SUBJECT: Environmental Assessment for After-the-Fact Demolition and Construction of **New Residence** located at **84-5807 Ke Ala O Keawe Road**, Honaunau, Island of Hawaii; TMK: (3) 8-4-013:016

Thank you for the opportunity to review and comment on the subject matter. The Land Division of the Department of Land and Natural Resources (DLNR) distributed or made available a copy of your request pertaining to the subject matter to DLNR's Divisions for their review and comments.

At this time, enclosed are comments from the (a) Division of Aquatic Resources, (b) Engineering Division, (c) Division of Forestry & Wildlife, (d) Office of Conservation & Coastal Lands, and (e) Land Division-Hawaii District on the subject matter. Should you have any questions, please feel free to contact Darlene Nakamura at (808) 587-0417 or email: darlene.k.nakamura@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosures
cc: Central Files

STATE OF HAWAIʻI
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

DAVID Y. IGE
GOVERNOR

MARY ALICE EVANS
DIRECTOR

235 South Beretania Street, 6th Floor, Honolulu, Hawaiʻi 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaiʻi 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/

DTS202209261509NA

Coastal Zone Management Program

Environmental Review Program

Land Use Commission

Land Use Division

Special Plans Branch

State Transit-Oriented Development

Statewide Geographic Information System

Statewide Sustainability Branch

October 12, 2022

Ms. Rachel Okoji, President
Environmental Risk Analysis LLC
905A Makahiki Way
Honolulu, HI 96826

Dear Ms. Okoji:

Subject: Pre-Consultation: Draft Environmental Assessment for the New Residences at 84-5807 Ke Ala O Keawe Road, Honaunau, Hawaii; Tax Map Key: (3) 8-4-013: 016

The Office of Planning and Sustainable Development (OPSD) received your Environmental Assessment (EA) pre-consultation request on September 20, 2022, for the construction of a single-family residence at 84-5807 Ke Ala O Keawe Road, Honaunau, Hawaii.

According to the pre-consultation request, the proposed action includes the after-the-fact demolition of a single-story structure and construction of a one-story single-family residence structure on a parcel located within the State Conservation District. The new single-story two-bedroom dwelling complies with all floor area, building area, building heights, setbacks, and parking regulations established by the land use ordinance.

The OPSD recommends that the applicant consult with the State of Hawaii Department of Land and Natural Resources, Office of Conversation and Coastal Lands, to confirm whether the construction of the subject single-family residence structure is eligible for exemption from preparation of an EA pursuant to Hawaii Administrative Rules § 11-200.1-15.

If you have any questions regarding this comment letter, please contact Shichao Li of our office at (808) 587-2841, or by email at shichao.li@hawaii.gov.

Sincerely,

Mary Alice Evans

Mary Alice Evans
Director

Solid and Hazardous Waste Branch
Standard Comments

November 26, 2018

The Solid and Hazardous Waste Branch administers programs in the areas of:

1) Management of hazardous waste;
2) Management of solid waste; and
3) Regulation of underground storage tanks.

Our general comments on projects are below. For further information about these programs, please contact the Solid and Hazardous Waste Branch at (808) 586-4226. All chapters of the Hawaii Revised Statutes (HRS) are at https://www.capitol.hawaii .gov/hrscurrent/.

Hazardous Waste Program

- The state regulations for hazardous waste and used oil are in chapters 11-260.1 to 11-279.1, Hawaii Administrative Rules (HAR) [http://health.hawaii.go v/shwb/hwrules/]. These rules apply to the identification, handling, transportation, storage and disposal of regulated hazardous waste and used oil. Generators, transporters and treatment, storage, and disposal facilities of hazardous waste and used oil must adhere to these requirements. Violations are subject to penalties under chapter 342J, HRS.
- Demolition of residential dwellings with lead-based paint are not exempt from hazardous waste rules. Please note that the following website includes guidance for your information: [https://health.hawaii.gov/shwb/files/2013/10/constdemguid.pdf].

Solid Waste Section

- The Solid Waste Section (SWS) enforces laws and regulations contained in chapters 342H and 3421, HRS, and chapter 11-58.1, HAR, "Solid Waste Management Control" [http://health.hawaii .gov/shwb/solid-waste/].

- 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.

- 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, and salvage facilities. Medical waste, infectious waste, and foreign waste treatment facilities are also included.

- 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.

- Chapter 342G, HRS, encourages the reduction of waste generation, reuse of discarded materials, and the recycling of solid waste. The project developer is highly encouraged to develop a demolition and construction solid waste management plan to ensure proper handling of wastes and divert recyclables from being landfilled. Ideally, the plan would seek to maximize waste diversion and minimize disposal.

  Furthermore, building plans should include designated areas to promote the collection of reusable and recyclable materials.

- Chapters 342H and 3421, HRS, and chapter 11-58.1, HAR, "Solid Waste Management Control" requires the proper management of solid wastes. Generators of solid waste are required to ensure that their wastes are properly delivered to permitted solid waste management facilities. Project managers should require their waste contractors to submit disposal (and recycling) receipts and invoices to ensure proper disposal (or recycling) of wastes.

Office of Solid Waste Management

- The Office of Solid Waste Management (OSWM) administers statewide integrated solid waste management planning activities, which apply to the counties, as well as various recycling programs, e.g. the Glass Advance Disposal Fee (ADF) and Deposit Beverage Container (DBC) Programs. Management of the DBC Program is conducted pursuant to chapter 342G, HRS, which contains compliance and enforcement provisions, and Chapter 11-282, HAR, "Deposit Beverage Recycling" [http://health.hawaii.gov/hi5/rules-regulations- additional- links/]. OSWM is also responsible for limited enforcement and compliance of solid waste management facilities that operate primarily as certified DBC redemption centers pursuant to chapter 342H, HRS, and chapter 11-58.1, HAR, "Solid Waste Management Control" [http://health.hawaii.gov/shwb/solid-waste/]. Authority for the integrated solid waste management planning and ADF programs is contained in chapter 342G, HRS.

- Glass Advance Disposal Fee Program: Businesses that import glass containers into Hawaii are required to register with the Department of Health and pay a 1.5 cent per container fee. Fee revenue is distributed to the counties for the operation of glass recycling programs.

- Deposit Beverage Container Program: Business that manufacture or import deposit beverage containers into Hawaii are required to register with the Department of Health and pay the five-cent deposit and one cent container fee on each deposit container. Deposits and fees are deposited into a special fund and are used to reimburse DBC redemption center refunds paid to consumers; and to pay handling fees to redemption/recycling companies to process and recycle collected deposit beverage containers; and to pay program administrative costs.

- The Department of Health reimburses and pays an associated handling fee for the redemption of deposit beverage containers (DBC). These transactions are conducted only with certified redemption centers. Certification requires obtaining a solid waste management permit from the SWS (which addresses environmental issues) and a certification from the DBC program (which standardizes the redemption process).

- Chapter 342G, HRS, encourages the reduction of waste generation, reuse of discarded materials, and the recycling of solid waste. Businesses, property managers and developers, and government entities are highly encouraged to develop solid waste management plans to ensure proper handling of wastes and divert recyclables from being landfilled. The project developer is highly encouraged to develop a solid waste management plan to ensure proper handling of wastes and divert recyclables from being landfilled. Ideally, the plan would seek to

  maximize waste diversion and minimize disposal. Such plans should include designated areas to promote the collection of reusable and recyclable materials.

- Solid waste management plans seek to maximize waste diversion and minimize disposal. Such plans should include designated areas to promote the collection of reusable and recyclable materials.

Underground Storage Tank Program

- The state's underground storage tank (UST) regulations, found in chapter 11-280.1, HAR [http://health.hawaii.gov/shwb/underg round-storage-tanks/], include specific requirements that UST owners and operators must meet when installing, operating, and permanently closing their UST systems and addressing releases from USTs. Violations are subject to penalties under chapter 11-280.1, HAR, and chapter 342L, HRS.

- A permit is required prior to the installation and operation of a UST. Any new UST system that will be installed must have secondary containment with interstitial monitoring. Refer to subchapters 2, 3, 4, and 12 of chapter 11-280.1, HAR. The installation permit expires 1 year from the date of issuance. The operation permit expires 5 years from the date of issuance.

- §11-280.1-50, HAR, requires owners and operators of USTs or tank systems to notify DOH within twenty-four (24) hours and follow the procedures in§ 11-280.1-52, HAR, if any of the following occur, with specific exceptions found in the rules:
  1) The discovery by any person of evidence of regulated substances which may have been released at the UST site or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, or nearby surface water);
  2) Unusual UST system operating conditions observed or experienced (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST, or an unexplained presence of water in the tank); or

3) Monitoring results from a release detection method required under §§11-280.1-41 or 11-280 .1-42 indicate a release may have occurred.

- For release response actions, responsible parties and their consultants and contractors should follow the applicable guidance in the Department of Health Hazard Evaluation Emergency (HEER) Office Technical Guidance Manual, HEER Environmental Action Level (EAL) guidance, and other guidance documents on the DOH HEER Office website [http://eha-web.doh.hawaii.gov /eha-cma/Org/HEER/], including those pertaining to Multi-Increment Sampling of soil, low flow groundwater sampling, soil vapor sampling, and Environmental Hazard Evaluations (EHE)/Environmental Hazard Management Plans (EHMP).

Water Resources Research Center

UNIVERSITY of HAWAI'I® MĀNOA

July 8, 2023

To Whom It May Concern,

This is to acknowledge receipt of your letter requesting a review of an environmental assessment (EA) or environmental impact statement (EIS), see attached. The Environmental Center at the University of Hawai'i at Mānoa, which for a time was linked to the Water Resources Research Center (WRRC), has been discontinued. As a result of the closure of the Environmental Center, we regret that WRRC no longer has the capacity to review environmental documents.

Sincerely,

Thomas Giambelluca
Director

2540 Dole Street, Holmes Hall 283
Honolulu, Hawai'i 96822
Telephone: (808) 956-7847
Fax: (808) 956-5044
An Equal Opportunity/Affirmative Action Institution