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SEP 08 2018

DAVID Y. IGE
GOVERNOR OF HAWAII

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

ROBERT K. MASUDA
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EDWARD R. UNDERWOOD
ADMINISTRATOR
DIVISION OF BOATING AND OCEAN RECREATION

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
4 Sand Island Access Road
Honolulu, Hawaii 96819

August 15, 2018

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

Dear Director:

With this letter, the Division of Boating and Ocean Recreation (DOBOR) hereby transmits the Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the Model Aircraft Airfield situated at TMK (3) 7-4-08:071 (Lot 2) Portion, in the Kealakehe, North Kona on the island of Hawaii for publication in the next available edition of the Environmental Notice.

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

If there are any questions, please contact DOBOR at 808-587-2683

Sincerely,

Suzanne D. Case
Chairperson

Enclosures

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OFC. OF ENVIRONMENTAL QUALITY CONTROL

19-074

APPLICANT
PUBLICATION FORM

Project Name:	HONOKOHAU MODEL AIRCRAFT AIRFIELD
Project Short Name:	HONOKOHAU MODEL AIRCRAFT AIRFIELD (please use no more than five succinct words; count not to include document status, e.g., EA)
HRS §343-5 Trigger(s):	USE OF STATE LANDS – SECTION 343-5(a)(1)
Island(s):	HAWAII
Judicial District(s):	North Kona, Hawaii
TMK(s):	(3) 7-4-8:71 (Lot 2) p/o
Permit(s)/Approval(s):	County Special Management Area permit, DLNR revocable lease
Approving Agency:	Department of Land and Natural Resources Division of Boating and Ocean Recreation
Contact Name, Email, Telephone, Address	Kenyatta Russell Property Manager DLNR – DOBOR Russell.kenyatta@hawaii.gov o. 808-587-1978 f. 808-587-1977 4 Sand Island Access Road Honolulu, HI 96819
Applicant:	Kona RC Flyers, INC.
Contact Name, Email, Telephone, Address	Doug Lanterman doug.linda@hawaii.rr.com (808) 327-9395 or Cell: (808) 989-6676 77-6436 Kilohana Street Kailua Kona, HI 96740
Consultant:	None
Contact Name, Email, Telephone, Address	

Status (select one)	**Submittal Requirements**
____ DEA-AFNSI	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.
__X__ FEA-FONSI	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.
____ FEA-EISPN	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.
____ Act 172-12 EISPN ("Direct to EIS")	Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.
____ DEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.
____ FEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.

___ FEIS Acceptance Determination	The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
____ FEIS Statutory Acceptance	The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of law.
____ Supplemental EIS Determination	The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.
____ Withdrawal	Identify the specific document(s) to withdraw and explain in the project summary section.
____ Other	Contact the OEQC if your action is not one of the above items.

Project Summary

This project will allow The Kona RC Flyers, Inc. (KRCF) to proceed with obtaining permits to use their already developed airfield. This will allow them to fulfill their mission to educate the public on all aspects of model aviation including applicable rules and regulations; design; building and flying.

Their airfield was constructed and utilized for the flying of model aircraft between 2011 and 2015 with the permission of the Kona District Manager of the Division of Boating and Ocean Recreation on undeveloped State land in the Kona area.

KRCF was given a Notice to Vacate September 16, 2016, as a result a nearby squatter. They have been attempting to obtain permits since that time.

As a chartered club of the nationally recognized community based organization the Academy of Model Aeronautics (AMA it has the only permanent model aircraft flying site on the West side the island of Hawaii.

KRCF is a non-profit 501(c)(3) Hawaii corporation supported only by member donations. No fees are charged. No salaries are paid. No fund raising tournaments are held.

The club educates the public in the rules of both the AMA and the FAA at the site. KRCF maintenance of the site benefits the State by providing a clean safe and remote area for flying of model aircraft. This project helps support one of the Department of Land and Natural Resources major functions to "provide safe and enjoyable recreational opportunities."

FINAL ENVIRONMENTAL ASSESSMENT

(A Finding of No Significant Impact)

Honokohau Model Aircraft Airfield

Prepared For: State of Hawai'i
Department of Land and Natural Resources
Division of Boating and Ocean Recreation

Prepared by: Kona RC Flyers, Inc.
A 501(c)(3) Non-profit Corporation

August 13, 2018

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1 SUMMARY

Project Name:	Honokohau Model Aircraft Airfield
Type of Document:	Final Environmental Assessment
Legal Authority:	Chapter 343-5(a), Hawai'i Revised Statutes
Determination:	A Finding of No Significant Impact
Applicable Environmental Assessment Review "Trigger":	Use of State Lands
Location:	TMK: (3) 7-4-08:71 (Lot 2) part of
Applicant:	Kona RC Flyers, Inc. (KRCF) Academy of Model Aeronautics (AMA) Chartered Club #3862 77-6436 Kilohana Street Kailua Kona, HI 96740
Contact:	Douglas Lanterman E-mail: doug.linda@hawaii.rr.com Phone: (808) 327-9395 Cell: (808) 989-6676
Document Preparation:	Douglas Lanterman 77-6436 Kilohana Street Kailua Kona, HI 96740
Approving Agency:	State of Hawai'i Department of Land and Natural Resources Division of Boating and Ocean Recreation
Project Summary:	The project will allow Kona RC Flyers, Inc. to fly their model aircraft in a safe non-intrusive area of State lands..

2 PROJECT OVERVIEW

2.1 Proposed Action

This action will allow Kona RC Flyers (KRCF) to pursue permits for utilizing their Honokohau Model Airfield.

2.2 Project Need

The Kona RC Flyers, Inc. is the only Chartered Club of the national community-based Academy of Model Aeronautics (AMA) on the West side the island of Hawaii.

2.3 Project Narrative

March 6, 2011 KRCF signed a DLNR-DOBOR Adopt-a-Harbor Program Agreement with specific responsibilities including:
1. Flying site clearing of trash/wreckage
2. Liter control at entrance/pathway
3. Improve area suitable for flying RC aircraft.
See EXHIBIT 1.

The Kona RC Flyers, Inc. (KRCF) has provided a safe and controlled flying site for model aircraft for over 30 years. Their remote airfield is on undeveloped State land on the island of Hawaii in the Honokohau, Kealakehe, North Kona area. The airfield was constructed on the plateau of harbor tailings with the permission of the Kona District Manager of the Division of Boating and Ocean Recreation (DOBOR). KRCF was given a Notice to Vacate September 16, 2016, as a result of the determination that the parcel belonged to the Land Division. The management of the parcel was transferred to DOBOR in November of 2017.

The club enforces the rules of both the Academy of Model Aeronautics (AMA) and the Federal Aviation Administration (FAA) at the site. KRCF maintenance of the site benefits the State by providing a clean safe area for flying of model aircraft. This project helps support one of the DLNR major functions to "provide safe and enjoyable recreational opportunities."

KRCF is supported only by member donations.
No salaries are paid.
No fees are charged.
No fund raising tournaments are held.
It is a 501(c)(3) Hawaii corporation.

KRCF has agreed to vacate the site at such time that the area is developed.

3 AGENCIES, CITIZEN GROUPS AND INDIVIDUALS CONSULTED

The agencies contacted are as follows:

3.1 County of Hawaii:

Planning Department

West Hawaii Office (808) 323-4770
West Hawaii Civic Center, Building B,
74-5044 Ane Keohokaole Highway,
Kailua Kona, HI 96740
East Hawaii Office (808) 961- 8288
101 Pauahi Street, Suite 3
Hawaii 96720
Contact: Esther Imamura (808) 961- 8139

Public Works Department

Engineering Division
Ben Ishi, Division Chief
Aupuni Center
101 Pauahi Street, Suite 7
Hilo, HI 96720
(808) 961-8321

3.2 State of Hawaii:

Department of Land and Natural Resources,

Land Division – Hawaii Island District Office - Hilo
Wesley Matsunaga, Candice Martin, Gordon Heit (808) 961-9590
75 Aupuni Street, Room 204
Hilo, HI 96720

Division of Boating and Ocean Recreation
Stephen C. Schmelz
Acting District Manager
74-380 Kealakehe Parkway
Kailua Kona, HI 96740
(808) 327-3685

Division of Boating and Ocean Recreation
Edward R. Underwood
Administrator
(808) 586-9314
Dana K. Yoshimura
Planning and Development Manager
4 Sand Island Access Road
Honolulu, HI 96819
(808) 587-1965

Department of Historic Preservation
Susan Lebo, Branch Chief, Archeology
Kakuhihewa Building
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707
(808) 692-8019
Kona Office (808) 323-4521

Department of Health
Office of Environmental Quality Control
235 S. Beretania St, Room 702
Honolulu, Hawaii 96813
Phone: (808) 586-4185

Department of Transportation
Kona International Airport
Manager's Office (808) 327-9520

Office of Hawaiian Affairs
West Hawaiʻi (Kona)
75-1000 Henry St., Suite 205
Kailua-Kona, HI 96740
Phone: (808) 327-9525

Department of Hawaii Home Lands
West Hawaii District Office
PO Box 125
Kamuela, Hawaii 96743
64-756 Māmalahoa Highway, Kamuela, HI, 96743
(808) 8876-6053
Land Management Division
Hale Kalaniana'ole
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707
(808) 620-9450

3.3 Federal:
Federal Aviation Agency
Kona Airport Tower (808) 334-8955

US Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Blvd. Room 3-122
Honolulu, HI 96850
(808) 792-9400
Jodie Charrier, Biologist

(808) 792-9423
Chelsie Javar, Botanist
808) 792-9400

4 PROPOSED ACTION WITH RESPECT TO ITS TECHNICAL, ECONOMIC, SOCIAL AND ENVIRONMENTAL CHARACTERISTICS

4.1 Project Location

The property is located south of the Honokohau Small Boat Harbor on the west coast of Hawaii on TMK: (3) 7-4-08:71 (part of).

As required for model aircraft flying, it is 5.4252-miles south of the Kona International Airport. The airport is located 19°44'19.5570"N and 156°02'44.2730"W. The center of the model aircraft main runway is located 19°39'47.5662"N and 156°01'22.5222"W or decimally 19.663213N, 156.022923W. (See EXHIBIT-2 Google Map of 5-mile Airport Radius WRT Flight Area.)

FAA requires that a model airfield be at least 5-miles from an active airport. The Honokohau Model Airfield is not in a landing pattern for the airport and the 400-foot ceiling for models is below the 500-foot floor for aircraft.

Mean Sea Level (MSL) elevation of runway is roughly 40.5 ft.

The site is on the spoils plateau from the Honokohau Harbor. The top of slope is approximately 30-feet above the base lava field. (See EXHIBIT 3 is a SITE PLAN showing existing conditions with airfield improvements.)

4.2 Existing Use

The area was once used for storage by the DLNR-DOBOR. The condition prior to use for a model airfield is shown in the Before Construction Photo, EXHIBIT-4.

4.3 Access

Access to the site is gained through a locked gate under control of the DLNR-DOBOR. Passage is over a gravel road that passes over TMK: (3) 7-4-08:3 (Lot 1) under DLNR-DOBOR ownership and a small portion of TMK: (3) 7-4-08-72 under DHHL ownership.

4.4 Land Ownership

The State of Hawaii owns the land in a County Special Management Area (SMA).

4.5 Technical

The improvements placed by KRCF consist of:

Model aircraft runway

An existing level area was smoothed with small gravel and sand to form crossing runways. One runway is approximately 375 feet in length and the other of approximately 155 feet in length. A biodegradable soil adhesive product called Soiltac is applied to the runway sand to create a firm and durable yet biodegradable surface.

Sunshade/community building

A non-enclosed sunshade was constructed near the runway. It encompasses an area of approximately 12 by 50 feet.

Shed/community building

A local company donated at no cost the excess white 20-foot Matson shipping container to the club. It is used as a shed for supplies.

A photo of the area is shown on the title page.
A photo of some of the planes flown is in EXHIBIT-5.

4.6 Project Timeframe and Costs

The improvements were installed by KRCF during the period of 2011 to 2015.
Total project costs incurred are estimated at approximately $15,000.
The cost of sand used for the runway was approximately $5,000. The cost of Soiltac applied is about $4,000.
Material costs for the sunshade is approximately $4,000.
A local company donated the shed at no cost.

Additional costs of up to $1,500 annually will be incurred by KRCF for maintenance and upkeep that primarily consists of the reapplication of the biodegradable soil adhesive Soiltac and sand to keep the runway smooth.

4.7 Economic Uses

Kona RC Flyers, Inc. has no income other than dues and donations from its members to support the purpose of the club and for maintenance of the airfield.
The site currently has limited economic value due to its remote location and the lack of water, power or other utilities.
The parcel is of an odd shape and has no physical boundaries in the area of the model airfield.
The use is truly short-term. The club has agreed to vacate at the time the parcel is developed
The 248.45-acre parcel is not subdivided and has future planned use for a

Honokohau Harbor expansion.
No one from the public has expressed interest in acquiring a long-term disposition of the entire parcel. The only interest is for a portion of the lot and subdivision is difficult due to its zoning, coastline frontage, lack of long-term plan and cultural resources.

4.8 Social Aspects

Flying remote controlled model aircraft has existed as a hobby for 80 years. The Academy of Model Aeronautics (AMA) was created in 1938 is the official national body for model aviation in the United States. The AMA serves as a liaison with the Federal Aviation Administration (FAA) concerning aero modeling safety and operation of model aircraft. Over the years, model aviation has grown in popularity as electronics and building materials have advanced. Currently the AMA has approximately 195,000 members representing over 2,500 local clubs. KRCF is one of those local clubs.
Flying model aircraft is an amazing hobby. It's lifelong. You can start doing it as a kid and continue participating into your senior years. (KRCF has club members in there 80's.) It promotes interest in science and aviation, particularly among students. It teaches you why things fly. It makes you interested in technology. You experience great successes, and sometimes-great failures (like crashing your plane). However, it also teaches you the perseverance to pick up the pieces of your plane, put it back together, and fly again. These are great life lessons, no matter what your age is. It's also a great social hobby. You make lifelong friends at the airfield. It's a very sharing community. If you're having trouble with your plane, you can bring it to the airfield and ask for help, and you will get it.
One of the most important aspects of this hobby (and the AMA, so subsequently KRCF) is pursuing the flying of model aircraft in a safe way. Joining a club and being taught under the AMA safety guidelines is the best way to do it. That's why the AMA exists, and why the FAA recognized them as *THE* community based organization for this purpose in the USA.
THIS HAPPENS ONLY if local clubs like KRCF has a proper location to operate a flying field. Kids will get excited about science. People will learn how to fly RC safely. Without this the community loses a great resource (which is completely operated by community volunteers).
The KRCF club has members who are educators, engineers, technicians, inventors, and business people. There's a lot of talent and knowledge in this club. The State of Hawaii and the local community wins in every way by helping clubs like KRCF obtain a flying field. It encourages a lifelong hobby that promotes education and science.

4.9 Flora

The area of the proposed project is located on harbor spoils, elevated approximately 30 feet from the natural geology. The adjacent land is mostly covered in fountain

grass (pennisetum setaceum) and other invasive plant species. The site's less than 1% of the parcel footprint is mostly devoid of vegetation. No threatened or endangered flora is known to exist at the project site.

Robert Hobdy, Environmental Consultant, conducted a comprehensive botanical survey of the proposed Kona Kai Ola development site. (The KRCF Airfield is within this site.) The purpose of the survey was to document existing plant species, document the status and abundance of each species, determine the presence of any native flora, particularly any that are Federally-listed as Threatened or Endangered, and to determine if the project area contains any special habitats which, if lost or altered, might result in a significant negative impact on the flora in this part of the island. There were no endangered or threatened plants found on the property. Most of the surrounding area consists of grasses with few native shrub species. The study is found in a document available at the Office of Environmental Quality Control web site (oeqc.doh.hawaii.gov). It is identified as 2007-09-08-HA-FEIS-KONA-KAI-OLA.

In DLNR-Land Division letter PFS No. 17HD-51 dated November 9, 2017 (BLNR Agenda Item) DLNR-Department of Forestry and Wildlife made the following recommendations:
Coastal Plants:
Plants such as naupaka and beach heliotrope are known hosts to the endangered yellow-faced bees. DOFAW recommends surveys done by DOFAW entomologists before work occurs in the vicinity.

Mitigating Actions:
The Airfield is over 1500 feet from these plants.

4.10 Fauna

Rana Productions, Ltd. conducted an avian and terrestrial mammalian species survey of the project site as part of the proposed Kona Kai Ola development site. (The KRCF Airfield is within this site.) The purpose of the survey was to determine if any avian or mammalian species currently listed as endangered, threatened, or proposed for listing under either the Federal or the State of Hawaii's endangered species programs are on, or within the immediate vicinity of the proposed development site.
The diversity and density of avian species were extremely low, as expected given the dry and harsh conditions of the project site. Due to the conditions of the project site, it is unable to sustain the nesting of native avian species.

Jodi Charrier , Endangered Species Biologist, Maui Nui and Hawaii Island Team, U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office provided the following list of species that are either in the vicinity of or potentially fly through the project area:
Federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*),

Hawaiian hawk (*Buteo solitarius*),
Hawaiian petrel (*Pterodroma sandwichensis*),
Hawaiian coot (*Fulica alai*),
Hawaiian stilt (*Himantopus mexicanus knudseni*), and
Federally threatened Newell's shearwater (*Puffinus auricularis newelli*).
She found that there is no critical habitat in the vicinity of the project area and does not anticipate any impacts to the bat or hawk due to model aircraft activities.

Mitigating Actions:
The club will take the following measures to avoid and minimize project impacts to water birds and seabirds:
1. If a petrel, coot, stilt or shearwater is observed within the project site, or flies into the site while activities are occurring, all activities will halt within 100 feet of the individual bird(s). Flying of model aircraft will not resume until the Hawaiian water bird(s) leave the area on their own accord.
2. No lights are used. KRCF will not fly at night.
3. The fire management plan includes no smoking allowed and fire extinguishers and a 50-gallon drum of water with buckets is available at all times.
See Appendix--2 for the full report.

In DLNR-Land Division letter PFS No. 17HD-51 dated November 9, 2017 (BLNR Agenda Item) DLNR-Department of Forestry and Wildlife made the following recommendations:
Hawaiian Hoary Bats
Avoid using barbed wire bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight.
Do not remove any trees and/or woody plants over 15 feet tall during bat birthing and pup rearing season (June 1 through September 15) Seabirds:
Artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with man made artifacts or grounding of birds. DOFAW recommends any lights used be fully shielded and face downward to minimize impacts.

Mitigating Actions:
No barbed wire is used in the Airfield vicinity.
No trees and/or woody plants over 15 feet tall are in the Airfield area.
The Airfield is only used during the day.

Anchialine Ponds:
Anchialine pool shrimp and Anchialine pools may be present on the parcel.
Avoidance and minimization measures should include the following;

- Avoid inhibiting or changing the natural movement of fresh and salt water within the Anchialine pools.
- Avoid development near the Anchialine pools, especially if runoff is created.

Avoid increase in impervious surfaces and associated increase in storm water runoff

and non-point source pollution.
Avoid any action that may result in the introduction of non-native fish or other non-native predators to Anchialine pools.
. Avoid using herbicides or pesticides near aquatic habitats.
. Avoid any actions that may alter the water quality and quantity of aquatic habitats.
The U.S. Fish and Wildlife Service recommends Standard Best Management Practices should be incorporated into any project in the area.
Anchialine pools should be protected from the following human incursion:
a. Vehicles should be restricted to existing roads and trails.
b. Trash and other waste should be prevented from entering wetlands, streams or Anchialine pools.

Mitigating Actions:
The Airfield is approximately 1500 feet from the Waste Water Treatment Plant, the nearest aquatic habitat.
The Airfield is on harbor spoils away from any Anchialine pools.
Vehicle access to the airfield is over existing primitive gravel roads.
Trash and other waste removed from the airfield after each use.

4.11 Soil and Climate

The proposed site according to the Web Soil Survey, United States Department of Agricultural, Natural Resources Conservation Service, the landform is totally upon a plateau of spoils from the creation of Honokohau Harbor. Climate is mild year-round with very low annual rainfall.
The Airfield creates no unabsorbed runoff. The underlying spoils that consists of lava rock and gravel absorbs all rainwater. The runway, sun shade and shed occupy less than 1% of the total pervious area and present an insignificant change in the ability of the area to absorb the limited rainfall. The club is careful to avoid any spills of toxic materials.

4.12 Flood and Tsunami Hazard

According to the Flood Insurance Rate Map, Federal Emergency Management Agency, the area is located within Zone X (areas outside the 500 year flood plain).

4.13 Archeological and Cultural

There are no archeological or cultural sites present in the area of the airfield. This is due to its location entirely on the harbor spoils pile that covered the area circa 1970. The Archeological Inventory Survey 2006 contained in Volume 3 Appendix M-1 of the FEIS-KONA-KAI-OLA Figures 9, 10, and 11 show the location of the spoils pile with no sites present. The figures are contained in EXHIBIT--7.

All members of KRCF are respectful of nearby sites of cultural significance and they will not be disturbed.

4.15 Social and Recreational

Model aircraft flying is a social and recreational activity.

The public is welcomed to join the Academy of Model Aeronautics and the KRCF club.

4.16 Scenic and Open Space Resources

This location is over 1,500-feet from the coast, and public roads. The airfield has no impact on coastal scenic and open space resources. The open space provides an ideal location for over flight of model aircraft due to the lack of people and buildings.

5 POTENTIAL IMPACTS AND MITIGATING MEASURES

FAA requires that a model airfield be at least 5-miles from an active airport. The airfield is outside that radius.

No threatened or endangered flora is known to exist at the project site.

Due to the conditions of the project site, it is unable to sustain the nesting of native avian species.

The club will take the following measures to avoid and minimize project impacts to water birds and seabirds:
1. If a petrel, coot, stilt or shearwater is observed within the project site, or flies into the site while activities are occurring, all activities will halt within 100 feet of the individual bird(s). Flying of model aircraft will not resume until the Hawaiian water bird(s) leave the area on their own accord.
2. No lights are used. KRCF will not fly at night.
3. The fire management plan includes no smoking allowed and fire extinguishers and a 50-gallon drum of water with buckets is available at all times.

Hawaiian Hoary Bats:
No barbed wire is used in the Airfield vicinity.
No trees and/or woody plants over 15 feet tall are in the Airfield area.
The Airfield is only used during the day.
Anchialine Ponds:
The Airfield is on harbor spoils well away from any Anchialine ponds.
Vehicle access to the airfield is over existing primitive gravel roads.
Trash and other waste removed from the airfield after each use.

The Airfield creates no unabsorbed runoff. The underlying spoils consisting of lava rock and gravel absorbs all rainwater. The runway, sun shade and shed occupy less than 1% of the total pervious area and present an insignificant change in the ability of the area to absorb the limited rainfall. The club is careful to avoid any spills of toxic materials.

The area is located within Zone X (areas outside the 500 year flood plain).

There are no archeological or cultural sites present in the area of the airfield. This is due to its location entirely on the harbor spoils pile that covered the area circa 1970.

This location is over 1,500-feet from the coast, and public roads. The airfield has no impact on coastal scenic and open space resources.

There is no night flying and no light pollution.

The aircraft are operated in accordance with the KRCF safety rules in its member handbook and within the programming of AMA and FAA SEC. 336 Special Rule for Model Aircraft.

6 ALTERNATIVES CONSIDERED

After flying many years at the Old Airport Park in Kona KRCF in November 2010 begin to look for a new and safe place to fly model aircraft. The ideal site near the Honokohau Harbor is free of trees, buildings, autos and people. No other satisfactory sites in the area were found.
KRCF continues to look for alternative sites free of trees, buildings, autos and people.
It has obtained permission to fly model aircraft at the now county managed Old Airport Park. This location is less than ideal due to the close proximity of people and the requirement to set-up for each flying session.

7 DETERMINATION OF NO SIGNIFICANT IMPACT

Evaluation indicates that the project **does not** meet any of the 13 administrative criteria for significance as follows:

1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource (See **4.13 Archeological and Cultural** section above.)
2. Curtails the range of beneficial uses of the environment (See **4.7 Economic Uses, 4.8 Social Aspects, 4.14 Social and Recreational, and 4.15 Scenic and Open Space Resources** sections above.)
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 (**No known**

conflicts.)

4. Substantially affects the economic or social welfare of the community or State (See **4.8 Social Aspects, 4.13 Archeological and Cultural, 4.14 Social and Recreational, 4.15 Scenic and Open Space Resources** sections above.)
5. Substantially affects public health (**Too minor for any affect**.)
6. Involves substantial secondary impacts, such as population changes or effects on public facilities (**Too minor for any affect**.)
7. Involves a substantial degradation of environmental quality **(Too minor for any affect.)**
8. Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions (**Too minor for any affect**.)
9. Substantially affects a rare, threatened, or endangered species, or its habitat With the exception of possible bird flyover no endangered species of flora or fauna are known to exist in the project site. (See **4.9 Flora** and **4.10 Fauna** sections above.).
10. Detrimentally affects air or water quality or ambient noise levels (**Too minor for any affect**.)
11. Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water or coastal waters (See **4.1 Project Location, 4.11 Soil and Climate,** and **4.12 Flood and Tsunami Hazard** sections above.)
12. Substantially affects scenic vistas and view planes identified in county or state plans or studies (See **4.15 Scenic and Open Space Resources** section above.)
13. Requires substantial energy consumption (**No power is available at the site**.)

For these reasons, the proposed project will not have any significant effect in the context of Chapter 343, Hawaii Revised Statutes and Section 11- 200-12 of the State Administrative Rules. It will not cause the displacement of any persons; nor generate controversy.

8 PERMITS AND APPROVALS REQUIRED:

State:
DLNR- DOBOR revocable month-to-month lease or other instrument
DHHL permission to use access road and recover aircraft

County:
Special Management Area Permit
Building permits for existing improvements

9 RESPONSES FROM EARLY CONSULTATION

Early consultation began in February of 2017 under Section 11-200-9, HAR. It does not require written responses. However, where such written responses are given, they are included in Appendix-2 Written Responses From Early Consultation. Consultation results are listed below:

1) From the County of Hawaii Planning Department:

a) Hawaii County General Plan Land Use Pattern Allocation Guide (LUPAG) Map designates the parcel as Open and Urban Expansion. Hawai`i County Code, Chapter 25-5-162(a) (3), Permitted Uses within the Open district, includes Community buildings, as permitted under Hawai`i County Code, Chapter 25-4-11(c). KRCF "community buildings" include a 20-foot metal shipping container and a sunshade.

b) The site is located in the Special Management Area (SMA), however, it has no frontage along the coastline. The response from an initial permit submittal is in the Appendix-2 Written Responses.

c) County Public Works provided the memorandum found in Appendix-2 Written Responses.

2) From DLNR-Land Division:

Hawaii Island District Office Hilo
KRCF provided a AMA "Flying Site Owner Insurance Coverage" certificate naming the State DLNR Land Division, 75 Aupuni Street, Room 204, Hilo, HI 96720. A Right of Entry to perform an Environmental Assessment was issued and concurred by KRCF.

2) From DLNR-DOBOR:

The Acting Kona District Manager indicated that access would be granted to KRCF.

3) From the State Department of Historic Preservation

Susan Lebo, Branch Chief, Archeology, was contacted. The matter was referred to the Kona office. Amy at the Kona office was contacted but there has been no written reply.

4) From the Department of Health Office of Environmental Quality Control

The staff provided help in the way of a Guide and interpretation of applicable regulations.

5) From the State Department of Transportation Kona International Airport

The Hawaii District Manager's office was contacted and an email sent without reply.

6) From the State Office of Hawaiian Affairs

A CD copy of the Early Consultation DEA was hand delivered to the Kona office. No reply has been received.

7) From Department of Hawaii Home Lands

West Hawaii Office indicated that if aircraft needed recovery from their land they should be called for permission.
The Land Management Division indicated that they would explore access road right of way issues.

8) From Federal Aviation Agency, Kona International Airport:

The airfield is located outside the 5-mile radius and thus not subject to airport control. An FAA flight controller at the tower was contacted. They are aware of the airfield. No problems have been experienced. He indicated that he could not provide a written response but suggested that the airport manager could.

9) From the US Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office

An email was received from Jodie Charrier, biologist. Input has been incorporated in this submission. See Appendix for full text.

In a telephone conversation Chelsie Javar, botanist, indicated that she would reply to a DEA once it was published.

10 RESPONSE TO DRAFT ENVIRONMENTAL ASSESSMENT

Two comment letters were received from the publication of the DEA. One was in the form of an e-mail from a UH-Manoa student as part of a class assignment. It offered revisions and edits. The other was a letter from the UH-Manoa Interim Director regarding the potential of light from the airfield affecting astronomy on Moanakea.

The comment e-mail and letter and responses are contained in Appendix—3.

Adopt - A - Harbor Program

Division of Boating and Ocean Recreation

Adoption Agreement

Department of Land and Natural Resources
State of Hawaii

Date: 03 / 28 / 2011

Adopter: KONA RC FLYERS

Address: 73-1679 Hao Street

City: Kailua-Kona Zip Code: 96740

Phone: Bus: 854-1522 Res:

Harbor Name: Honokou Small Boat Harbor

Harbor Address: 74-380 Kealakehe Parkway

City: Kailua-Kona Zip Code: 96740

We wish to volunteer our services to help at this harbor and assist in sustaining Hawai'i's resources for future generations.

Our Coordinator(s): Richard J. Bailey, Jr. / Blake Senderling
ERIC NELSON (989-7574)

Address: 73-1679 Hao St.

City: Kailua-Kona Zip Code: 96740

Phone: Bus: 854-1522 Res: 854-1522 936-1960

We, the Adopters, wish to assume partial responsibility for this Harbor. The specific proposed responsibilities include:

1. Flying site clearing of trash/wreckage
2. Liter control at entrance / pathway
3. Improve area suitable for flying RC craft.

EXHIBIT-1 Page 1 of 3

PERFORMANCE:

The Adopter agrees to perform their volunteer services in a safe and reasonable manner. It is the Adopter's responsibility to become acquainted with the procedures and tools necessary to perform these tasks and to monitor the actions of their group of volunteers.

Prior to commencement and periodically throughout the adoption, the Adopter will conduct safety briefings with their volunteers to ensure that they are aware of any potential safety hazards. The Adopter will have all members of the party sign liability waivers. Also, the Adopter will instruct the volunteers in the proper method of performing their tasks.

The State Harbor Agent is available to assist in providing safety presentations and written documentation on safety and proper methods of performing the work. An on-site evaluation, to discuss procedures, can be scheduled prior to Adoption.

The State Harbor Agent and the Adopter will agree on a schedule of when volunteer work will be performed. The State Harbor Agent will monitor the progress of the adoption and maintain close communication with the Adopter. The Adopter will notify their State Harbor Agent contact, if a schedule change is necessary, or if additional work (outside of the agreed upon tasks) is to be performed.

The use of the harbor by the Adopter shall be according to the Rules and Regulations of the Division of Boating and Ocean Recreation (Hawaii Administrative Rules Title 13, Chapters 250 through 256) and not for the personal use or privilege of the Adopter.

DURATION:

It is understood that the duration of this agreement is one (1) year beginning April 1, 2011 and terminating 3/31/2012. While the agreement is in effect, a sign may be posted by the Boating and Ocean Recreation Division providing acknowledgment to the Adopter. Continued adoption after the one (1) year duration is subject to written agreement by both the Adopter and the Boating and Ocean Recreation Division.

TERMINATION:

If either party is dissatisfied with the performance of the other, this agreement may be terminated, by written notice from the District Manager, or by written notice from the Coordinator of the organization.

EXHIBIT-1 Page 2 of 3

Adopt-A-Harbor Agreement
Page three

DIVISION OF BOATING AND OCEAN RECREATION CONTACT:

Contact: Nancy E. Murphy

Address: 74-380 Kealakehe Parkway

City: Kailua-Kona Zip Code: 96740

Phone: Bus: 327-3690 Pager: 960-7491

3635

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed this 6th day of March ~~19~~ 2011.

DIVISION OF BOATING AND OCEAN RECREATION

By
District Manager, DLNR Division of Boating and Ocean Recreation

By
State Harbor Agent

THE ADOPTER

By
Adoption Coordinator
Rich Bailey

And By
Back-up Adoption Coordinator

Back-up

Enclosures:

Appendix A - Map of Harbor
Appendix B - Safety Checklist
Appendix C - Liability Waiver

EXHIBIT-1 Page 3 of 3

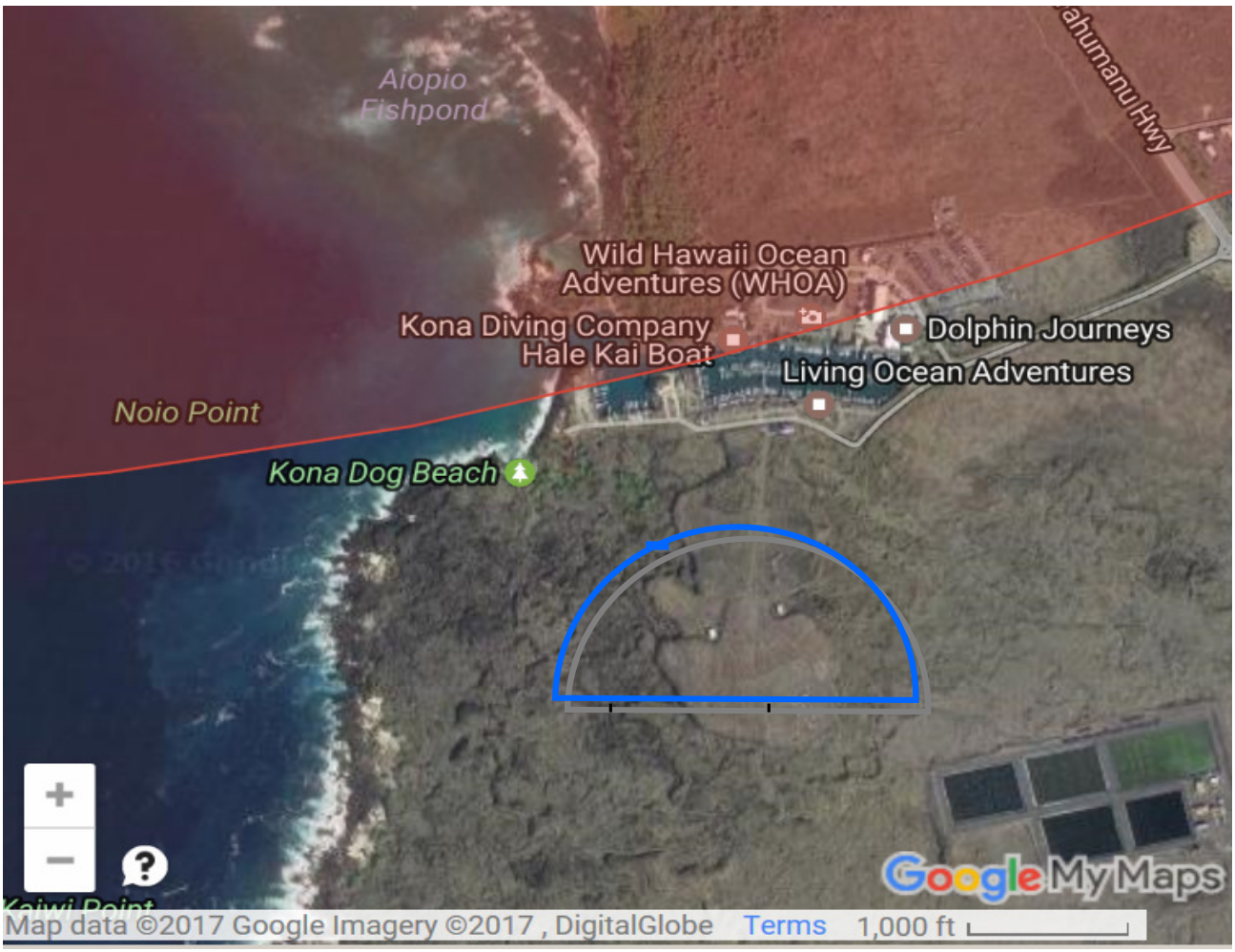


EXHIBIT-2

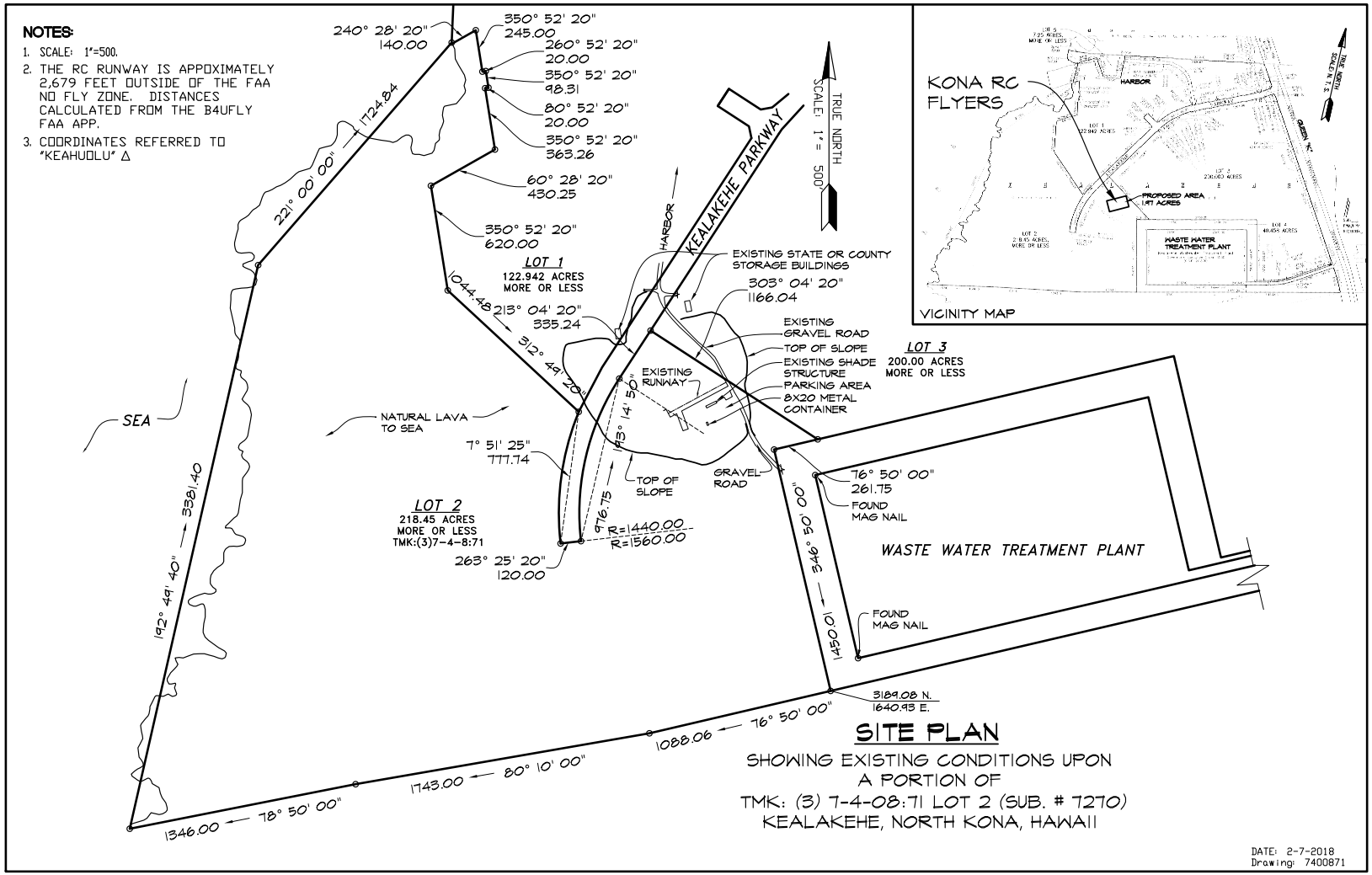
Google Map 5-mile Airport Radius (red) and flight area (blue)

EXHIBIT-3

Site Plan next page

NOTES:

1. SCALE: 1"=500.
2. THE RC RUNWAY IS APPOXIMATELY 2,679 FEET OUTSIDE OF THE FAA NO FLY ZONE. DISTANCES CALCULATED FROM THE B4UFLY FAA APP.
3. COORDINATES REFERRED TO "KEAHUOLU" Δ



SITE PLAN

SHOWING EXISTING CONDITIONS UPON
A PORTION OF
TMK: (3) 7-4-08:71 LOT 2 (SUB. # 7270)
KEALAKEHE, NORTH KONA, HAWAII

DATE: 2-7-2018
Drawing: 7400871

EXHIBIT-4 Before Construction Photo

EXHIBIT-5

Examples of Kona RC Flyers, Inc. Model Airplanes

EXHIBIT-6 Flying Field Rules

Pilot Requirements

. Each club member operating an aircraft must have a current AMA and KRCF membership.
. All pilots must comply with the current AMA Safety Code included with your current AMA membership. All AMA and KRCF rules must be followed at the flying field.
. If a club member has not achieved "solo" flight status (i.e. having demonstrated the skill to pilot an aircraft safely by themselves), they must be accompanied a designated club flight instructor or "solo-ed" club member when they are flying.
. Pilot guests of members must have and show proof of a valid AMA license. The guest pilot is the responsibility of the KRCF member sponsoring them, and must remain present while the guest is on site.
. If using an instructor/student dual flight transmitter setup (i.e. a buddy-box), the instructor/master pilot is responsible for the flight.
. Non-AMA member "guests" may fly on a one-time basis (with a buddy-box) with an AMA member. Only AMA member aircraft or radio equipment may be used. (Per AMA insurance rules)

Aircraft Requirements

1. All aircraft must be labeled/identified per AMA and FAA guidelines, including member name and appropriate AMA/FAA number. This is in compliance with the requirements of the AMA Safety Code.
2. All aircraft must be verified by it's pilot for airworthiness prior to every flight.

Flight Operations

. A maximum of four fixed-wing aircraft may be in the air at any one time.
. Flying over people is prohibited.
. During flying, pilots must stand behind the flight-line fence.
. It is strictly prohibited to fly any aircraft behind the flight- line.
. Flying may continue during aircraft retrieval from the runway (or beyond), with the permission and acknowledgment of all other active pilots.
. Pilots may be on the runway only for takeoffs or retrieval of aircraft. To do so, they must clearly and audibly announce and receive acknowledgment of these actions from the other pilots before proceeding.
. All takeoff and hand launches shall be done from the runway or runoff areas only. No hand launches will be made between the flight line and the pit area.
. Pilots must clearly announce (call-out) the following intentions to other pilots on the flight line: "Take off", "Landing", "On Runway", "Clear" (from runway) or "Off Runway", and "Dead stick" (when needing to perform a emergency un-powered landing). Other "call-outs" are welcomed and encouraged as needed.
. No other type of RC devices (RC cars, for example) may be operated at the KRCF flying field.

. Pits Area

. No props shall be spinning unless forward of the shade structure. This applies to both

electric and liquid fuel aircraft.

- All pilots flying aircraft with liquid-fueled engines shall identify the nearest location of a functioning fire extinguisher before starting and operations.
- Spectators are not allowed forward of the shade structure.
- The area forward of the shade structure is restricted to active pilots, and those who are accompanying them for the purpose of assistance or instruction.
- When facing the direction of the runway... The right side of the shade structure is set aside for socializing members and guests. The left side is for pilot preparation.
- Liquid fueled planes must be started in the KRCF plane stands, which must be located forward of the left side of the shade structure.
- Two individuals; the pilot and a “plane wrangler”, who will carry the airplane to the flight line, must manage liquid fueled planes.
- Never leave a running engine and airplane unattended.
- All pets must be kept on a leash. Clean up after your pet, and take the cleanup home with you.

Frequency Control

If you have question or concerns about your radio equipment meeting these requirements, consult the club Safety Officer or another knowledgeable club member for guidance.

Aircraft Control

- At the KRCF flying field.... It is assumed that all club members fly with modern 2.4Ghz band digital radio equipment, which is FCC Part 15, approved. Because this technology allows for many pilots to fly at the same time without signal conflict, there are **no frequency controls** in place for aircraft transmitters at the KRCF field.
- Members wishing to fly with older 72MHz band radio equipment may do so. However, they fly at their own risk and accept the burden of identifying other fliers who may be operating on the same channel. All 72 MHz transmitters and receivers used at the KRCF Field must be "Narrow Band" in compliance with the 1991 FCC Regulations.
- Some multirotor aircraft use the 5.8GHz band for aircraft control. This is acceptable for use at the KRCF field. However, these systems may have signal conflicts if 5.8GHz FPV systems are running at the same time. KRCF has no frequency controls in place for the 5.8GHz band. Pilots using it for aircraft control fly at their own risk and accept the burden of identifying other fliers who may be operating on the same channel/band.

FPV (First Person View)

- There shall be **no FPV equipment (or other radio electronics) operating in the analog 2.4GHz band at the KRCF field. There are NO EXCEPTIONS.** This includes equipment that is FCC Part 15 approved. This restriction is to protect the 2.4GHz flight control spectrum from interference. It is suggest that the 5.8GHz band be used for FPV.
- 2.4GHz Wi-Fi or Lightbridge (digital signals) **are acceptable for FPV.**
- There are no frequency/channel controls on the 5.8GHz band for FPV at KRCF. Pilots using it fly at their own risk and accept the burden of identifying other fliers who may be operating on the same channel/band for FPV or aircraft control.
- Per AMA and FCC requirements, FPV/radio equipment operated at the KRCF field

must be FCC Part 15 approved. The only exception is equipment operated by a club member who is amateur (HAM) licensed for it's operation.

Field Cautions, Policies and Reminders

- If you need assistance, or a spotter for a flight, or help with a pre-flight ground check, please ask. We are a friendly bunch, willing to help fellow pilots.
- Clean up your area when you are finished and pick up other trash you see. Remember to take your trash home with you. This is your field. Please help keep it clean.
- There is no smoking on the flight line or in the pits. If you are smoking in an allowed area, do not throw your butts on the ground. Take them home with you.
- Courtesy first. There are a limited number of aircraft setup stand available. Please remove your plane when not actively preparing for a flight, so others may use it.
- Follow safe battery charging practices at all times. Do not charge batteries inside of vehicles. Charge batteries on fireproof surfaces or inside fireproof containers.

New Pilot/Member Orientation

Every new member of KRCF must have a club orientation conducted by the KRCF President, Membership Officer, or one of their designates. The following items must be completed.

- Give the new member a copy of this handbook for them to keep.
- Have a specific discussion of the gate closing and locking requirements for the KRCF field.
- Review of all of the Flying Field Rules in this handbook.
- Review the Field Usage Map in this handbook.
- Determine if the new member requires a checkout flight. If so, complete the flight and determine if the member is then approved for solo flight.

EXHIBIT-7
SPOILS PILE VS CULTURAL SITES

Figures 9, 10, and 11 below are maps of the wider area.
They are found in the Archeological Inventory Survey of 2006.
A copy of the survey is found in Volume 3 Appendix M-1 of the FEIS-KONA-KAI-OLA.
The Model Aircraft Airfield is located on the spoils pile identified by the cross hatched area and contains no historical or cultural sites.

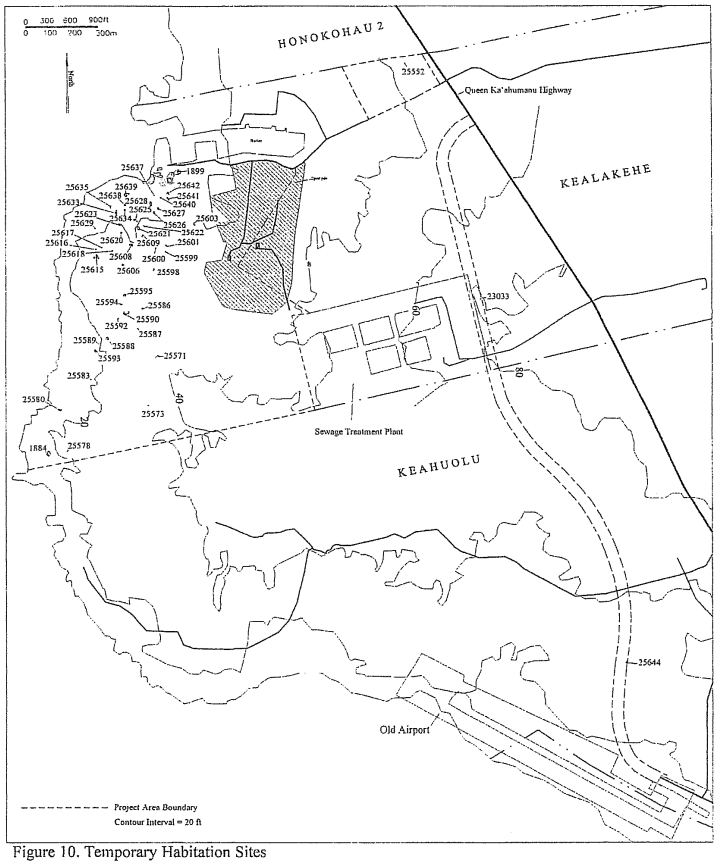


Figure 10. Temporary Habitation Sites

Table 6. Temporary Habitation Sites

Site	Feature	Formal Type	Shape	Construction	Area (sq m)	Elevation (ft)	Comments
1884	A	Lava Blister	Irregular	-	39.90	18	Marine shell and modern trash
1884	B	Alignment	Irregular	Aligned cobbles and small boulders	9.36	18	Marine shell and charcoal
1899	B	Lava Blister	Oval	Crude terrace, rock ring, mound and alignment	46.80	10	Marine shells, waterworn coral, volcanic glass, abraders, fishhooks
1899	C	Lava Blister	Oval	-	18.80	10	Marine shell, waterworn coral, waterworn basalt
23033	-	Overhang	Oval	Crude pavement	6.80	81	No cultural remains
25552	-	Wall	L-shape	Stacked and piled cobbles and slabs	13.40	42	Marine shell
25571	-	Lava Tube	Irregular	-	54.00	35	Waterworn coral and *kukui* nut - Burial also present
25573	-	Lava Blister	Oval	-	17.20	33	Marine shell
25578	-	Lava Blister	Oval	-	26.60	21	Marine shell
25580	A	Enclosure	Oval	Stacked and piled cobbles and small boulders	12.60	4	Waterworn marine shells and coral
25580	B	Alignment	Linear	Aligned cobbles and small boulders	3.4 m long	4	No cultural remains
25583	-	Terrace	Oval	Stacked and piled cobbles and small boulders with rough paved surface	8.60	19	Marine shell, waterworn coral abraders, fish bone, charcoal
25586	-	Lava Blister	Oval	Piled cobble and boulder mound below entrance	50.02	26	No cultural remains
25587	-	Lava Blister	Oval	Piled cobble and boulder mound below entrance	11.50	19	Waterworn basalt cobbles
25588	A	Overhang	Irregular	Stacked and piled walls at entrance	16.50	21	Marine shells, fish bone, waterworn coral and ash
22589	-	Pavement	Irregular	Rough pavement	7.50	19	Marine shells, waterworn coral, volcanic glass, small mammal bone
25590	A	Overhang	Irregular	-	23.60	24	Marine shells, waterworn coral and waterworn basalt cobble
25590	B	Overhang	Irregular	-	78.70	24	Marine shells, gourd fragments, *kukui* nuts, waterworn basalt cobbles
25592	-	Overhang	Irregular	Stacked wall at entrance	13.00	22	Modern debris
25593	-	Midden scatter	Irregular	Scattered cobbles and small boulders	36.10	19	Marine shell and waterworn coral
25594	-	Overhang	Irregular	-	33.70	23	Marine shells, *Echinoid* body fragments, fish bone and ash.
25595	-	Lava Blister	Irregular	-	52.00	24	Marine shells, Echinoid body fragments, waterworn coral
25598	-	Lava Blister	Irregular	-	24.90	26	Marine shells and *Echinoid* body fragments
25599	-	Overhang	Irregular	-	8.90	23	1 waterworn basalt pebble
25600	-	Overhang	Irregular	-	22.50	22	Possible hearth with marine shells, waterworn coral and ash and 2 waterworn basalt cobbles
25601	-	Overhang	Irregular	-	20.60	22	Waterworn coral fragment and ash deposit
25603	A	Overhang	Irregular	-	16.20	20	Branch and waterworn coral
25603	B	Overhang	Oval	-	3.51	20	Marine shells
25606	-	Overhang	Irregular	-	14.50	23	Marine shells
25608	A	Lava Blister	Oval	-	47.30	21	Waterworn basalt cobbles and waterworn coral
25609	-	Overhang	Linear	-	32.60	21	Waterworn basalt cobbles and Marine shells
25615	A	Overhang	Oval	-	23.60	22	Marine shells, Echinoid body fragments and spines and ash
25615	B	Alignment	Oval	Aligned slabs and cobbles	1.40	22	Marine shells
25615	C	Pavement	Oval	Rough pavement bordered by slabs	1.87	22	Marine shells and waterworn coral
25615	D	Flat slab	Oval	Slab supported by cobbles	1.78		Possible table
25616	-	Lava Blister	Oval	-	15.90	22	Marine shells and waterworn coral

a lava tube (Site 25571) and two filled cracks (Site 25632, Feature E and 25651). Human remains were identified in the lava tube during the present study and in the filled cracks by Kaloko-Honokohou National Park Service (NPS) staff and others in 2000.

The three probable burial platforms are each small well built structures that range in length from 4.4 to 6.1 m and in width from 2.35 to 5.0 m. The Feature A platform at Site 1893 is a ceremonial feature that may contain human remains. No testing was undertaken within these three features due to their coastal locations in areas to be preserved.

Table 8. Burial Sites

Site	Feature	Type	Length (m)	Width (m)	Height/ Depth (m)	Elevation (feet)	Comments
1890	-	Platform	4.95	2.35	0.62	18	Probable burial along coast
1893	A	Platform	6.10	5.00	0.74	17	Ceremonial feature which may also contain burial
1893	G	Platform	4.40	2.40	0.32	19	Probable burial
25571	-	Lava Tube	14.10	3.35	0.75	35	Temporary Habitation tube with human remains
25632	E	Filled crack	5.80	0.45	1.9 m deep	12	Fissure with human remains concealed by NPS staff
25651	-	Filled crack	3.30	0.60	0.8 m deep	12	Fissure with human remains concealed by NPS staff

Trails

Trail segments were identified in ten locations during the project, all within the Land of Kealakehe. The location of the trails is presented in *Figure 11* and they are summarized in *Table 9*. Two of the features (Features C and F) of Site 1898 consist of wide walls that extend across ponds inland of the Feature A *heiau*. These features likely functioned as bridges to allow people to pass behind the ceremonial structure.

The eight remaining trails consist of linear paths that extend through uneven terrain that range in length from 22.6 to 428.2 m. Of these eight trails, seven are oriented in generally inland-seaward directions (Sites 25549, 25563, 25572, 25574, 25602, 25607 and 25612) and one is oriented parallel to the coastline (Site 7704). Five of these trails (Sites 7704, 25572, 25574, 26502 and 25612) are delineated by from one to 26 cairns (discussed below), one is marked by aligned waterworn coral fragments (Site 25563), and two consist of cleared paths through a'a lava (Sites 25549 and 25607). Site 25607 also contains aligned slab steppingstones.

It is possible that some of the trail segments are part of the same trail. Sites 25572 and 25574 are oriented in the same direction with an 82.0 m wide gap between them. Sites 25602 and 25607 also have similar orientations, with a 95.0 m wide gap separating them. The majority of the trails are interpreted as prehistoric transportation routes. Site 7704 interpreted as an historic 19th Century trail. The absence of abrasions on the lava associated with this very straight trail led Soehren to conclude that it represented a "preliminary route selection" for a nineteenth century horse trail that was subsequently abandoned, perhaps in favor of the "Old Mamalahoa Trail" farther inland (1980:2).

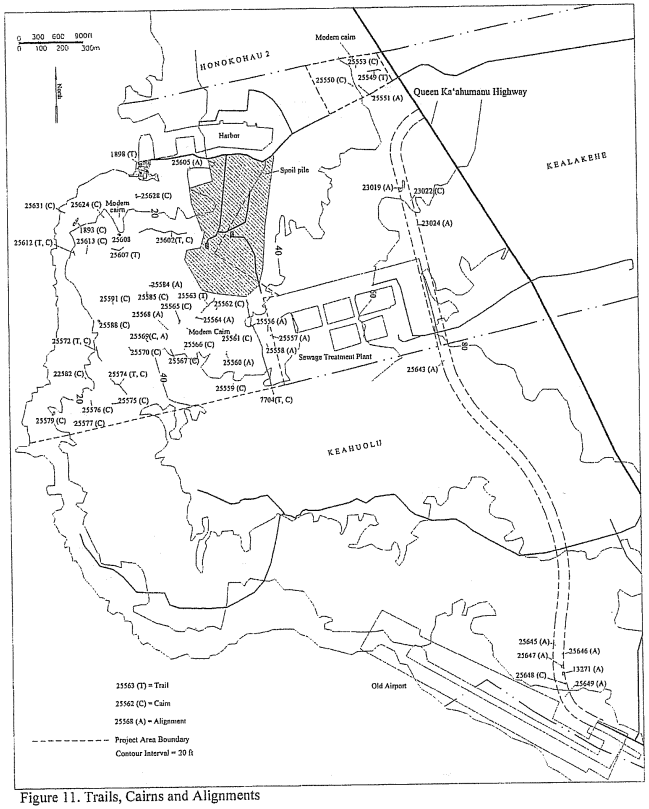


Figure 11. Trails, Cairns and Alignments

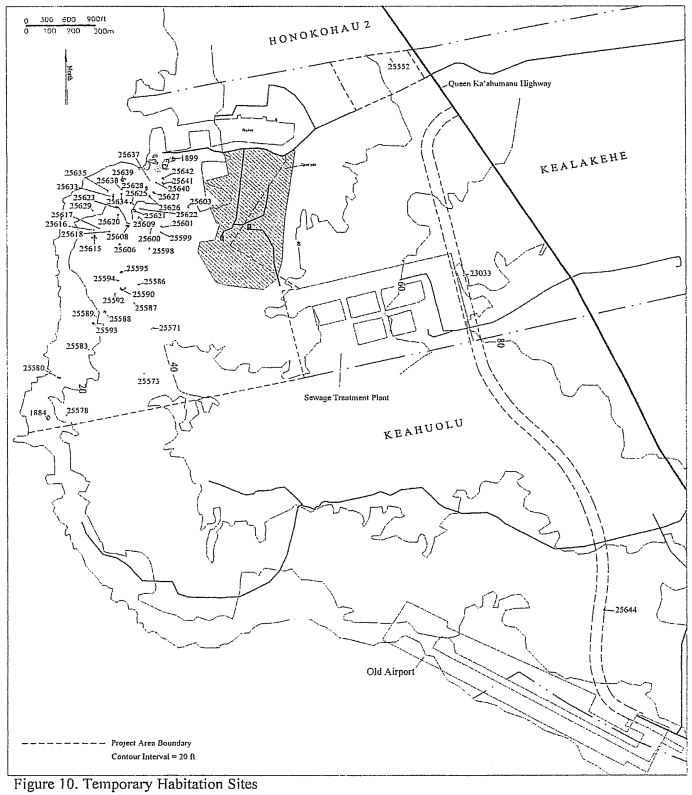


Figure 10. Temporary Habitation Sites

Table 6. Temporary Habitation Sites

Site	Feature	Formal Type	Shape	Construction	Area (sq m)	Elevation (ft)	Comments
1884	A	Lava Blister	Irregular	-	39.90	18	Marine shell and modern trash
1884	B	Alignment	Irregular	Aligned cobbles and small boulders	9.36	18	Marine shell and charcoal
1899	B	Lava Blister	Oval	Crude terrace, rock ring, mound and alignment	46.80	10	Marine shells, waterworn coral, volcanic glass, abraders, fishhooks
1899	C	Lava Blister	Oval	-	18.80	10	Marine shell, waterworn coral, waterworn basalt
23033	-	Overhang	Oval	Crude pavement	6.80	81	No cultural remains
25552	-	Wall	L-shape	Stacked and piled cobbles and slabs	13.40	42	Marine shell
25571	-	Lava Tube	Irregular	-	54.00	35	Waterworn coral and *kukui* nut - Burial also present
25573	-	Lava Blister	Oval	-	17.20	33	Marine shell
25578	-	Lava Blister	Oval	-	26.60	21	Marine shell
25580	A	Enclosure	Oval	Stacked and piled cobbles and small boulders	12.60	4	Waterworn marine shells and coral
25580	B	Alignment	Linear	Aligned cobbles and small boulders	3.4 m long	4	No cultural remains
25583	-	Terrace	Oval	Stacked and piled cobbles and small boulders with rough paved surface	8.60	19	Marine shell, waterworn coral abraders, fish bone, charcoal
25586	-	Lava Blister	Oval	Piled cobble and boulder mound below entrance	50.02	26	No cultural remains
25587	-	Lava Blister	Oval	Piled cobble and boulder mound below entrance	11.50	19	Waterworn basalt cobbles
25588	A	Overhang	Irregular	Stacked and piled walls at entrance	16.50	21	Marine shells, fish bone, waterworn coral and ash
22589	-	Pavement	Irregular	Rough pavement	7.50	19	Marine shells, waterworn coral, volcanic glass, small mammal bone
25590	A	Overhang	Irregular	-	23.60	24	Marine shells, waterworn coral and waterworn basalt cobble
25590	B	Overhang	Irregular	-	78.70	24	Marine shells, gourd fragments, *kukui* nuts, waterworn basalt cobbles
25592	-	Overhang	Irregular	Stacked wall at entrance	13.00	22	Modern debris
25593	-	Midden scatter	Irregular	Scattered cobbles and small boulders	36.10	19	Marine shell and waterworn coral
25594	-	Overhang	Irregular	-	33.70	23	Marine shells, *Echinoid* body fragments, fish bone and ash
25595	-	Lava Blister	Irregular	-	52.00	24	Marine shells, Echinoid body fragments, waterworn coral
25598	-	Lava Blister	Irregular	-	24.90	26	Marine shells and *Echinoid* body fragments
25599	-	Overhang	Irregular	-	8.90	23	1 waterworn basalt pebble
25600	-	Overhang	Irregular	-	22.50	22	Possible hearth with marine shells, waterworn coral and ash and 2 waterworn basalt cobbles
25601	-	Overhang	Irregular	-	20.60	22	Waterworn coral fragment and ash deposit
25603	A	Overhang	Irregular	-	16.20	20	Branch and waterworn coral
25603	B	Overhang	Oval	-	3.51	20	Marine shells
25606	-	Overhang	Irregular	-	14.50	23	Marine shells
25608	A	Lava Blister	Oval	-	47.30	21	Waterworn basalt cobbles and waterworn coral
25609	-	Overhang	Linear	-	32.60	21	Waterworn basalt cobbles and Marine shells
25615	A	Overhang	Oval	-	23.60	22	Marine shells, Echinoid body fragments and spines and ash
25615	B	Alignment	Oval	Aligned slabs and cobbles	1.40	22	Marine shells
25615	C	Pavement	Oval	Rough pavement bordered by slabs	1.87	22	Marine shells and waterworn coral
25615	D	Flat slab	Oval	Slab supported by cobbles	1.78		Possible table
25616	-	Lava Blister	Oval	-	15.90	22	Marine shells and waterworn coral

APPENDIX-1
Written Responses Received from Early Consultation

Harry Kim
Mayor

West Hawai'i Office
74-5044 Ane Keohokalole Hwy
Kailua-Kona, Hawai'i 96740
Phone (808) 323-4770
Fax (808) 327-3563

County of Hawai'i
PLANNING DEPARTMENT

Michael Yee
Director

Daryn Arai
Deputy Director

East Hawai'i Office
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
Phone (808) 961-8288
Fax (808) 961-8742

December 20, 2016

Mr. Rich Bailey
73-1679 Hao Street
Kailua-Kona, HI 96740

Dear Mr. Bailey:

SUBJECT: Special Management Area Use Permit Assessment Application (SAA 16-001454)
Applicant(s): Kona RC Flyers (KRCF)
Land Owner(s): State of Hawai'i, Department of Land and Natural Resources
Request: Radio Controlled Model Airplane Airfield
TMK(s): (3) 7-4-008:Por. of 071, North Kona, Hawai'i

This is to acknowledge receipt on November 16, 2016, of the Special Management Area Use Permit Assessment Application for the creation, maintenance and related uses of a Radio Controlled Model Airplane Airfield on a portion of the subject parcel.

This 218.45 acre parcel is designated Urban and Conservation by the State Land Use Commission and is zoned Open by the County. In addition, the Hawai'i County General Plan Land Use Pattern Allocation Guide (LUPAG) Map designates the parcel as Open and Urban Expansion. It is located in the Special Management Area (SMA) and has frontage along the coastline.

Please note that the submitted Special Management Area Use Permit Assessment Application must address all required information listed on Pages 2-4. In particular, the proposed development must include "as-built" improvements such as the unpermitted open roofed structure and the large storage container which were not included in the application. However, Hawai'i County Code, Chapter 25-5-162(a) (10), Permitted Uses within the Open district, includes "Private recreational uses **involving no aboveground structure except dressing rooms and comfort stations.**" (Emphasis supplied)

Also, the project area's location has to be on a map of the entire parcel and drawn to scale. It must include all existing structures, graded areas, parking areas, equipment and storage units. As a reminder, the Total Cost/Fair Market Value of Development must include the cost of all unpermitted activities and structures on the previously vacant and unimproved project area.

DEC 21 2016

Further, the project area is within the Kona International Airport's 5-mile Airport Radius so a Federal Aviation Administration (FAA) Determination of No Hazard to Air Navigation must be included with the application.

Finally, an environmental assessment (EA) is required for uses of state or county lands or funds other than for feasibility studies or the purchase of raw land. However, certain activities may be deemed minor or routine by the state agency that has oversight. Please contact the Department of Land and Natural Resources, Land Division in Hilo at (808) 961-9590 for a determination, which should be included with the Special Management Area Use Permit Assessment Application.

Based on the foregoing, this application is deemed incomplete and is being returned to you. For your convenience, we have enclosed another Special Management Area Use Permit Assessment Application.

If you have any questions, please contact Esther Imamura of this office at (808) 961-8139.

Sincerely,

MICHAEL YEE
Planning Director

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\\Coh33\planning\public\wpwin60\CZM\SMAA\2016\SAA 16-1454 Kona RC Flyers (KRCF) Bailey.doc

Encl: SAA 16-001454
SMAA

cc: Mr. Wesley T. Matsunaga,
DLNR, Land Division
75 Aupuni Street, Room 204
Hilo, HI 96720

From: "Charrier, Jodi" <jodi_charrier@fws.gov>
Date: April 20, 2017 at 10:39:33 AM HST
To: <doug.linda@hawaii.rr.com>
Subject: Technical Assistance for the Kona RC Flyers, Inc., Island of Hawaii

Mr. Lanterman,
Our office received a call from you on March 22, 2017, requesting comments on your Draft Environmental Assessment for Model Aircraft Airfield for Kona RC Flyers, Inc.. Kona RC Flyers, Inc. is seeking to use its an aircraft airfield located is at the North end of the Old Airport Park in Kailua Kona on the Island of Hawaii for flying model aircraft.
We reviewed the proposed project pursuant to the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). Based on information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program, the following listed species are either in the vicinity of or potentially fly through the project area: the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), Hawaiian hawk (*Buteo solitarius*), Hawaiian petrel (*Pterodroma sandwichensis*), Hawaiian coot (*Fulica alai*), Hawaiian stilt (*Himantopus mexicanus knudseni*), and the threatened Newell's shearwater (*Puffinus auricularis newelli*). There is no critical habitat in the vicinity of the project area. We do not anticipate any impacts to the bat or hawk due to your activities. The Service recommends the following measures to avoid and minimize project impacts to water birds and seabirds:
• If a listed Hawaiian water bird is observed within the project site, or flies into the site while activities are occurring, all activities should halt within 100 feet of the individual(s). Work should not resume until the Hawaiian water bird(s) leave the area on their own accord.
• All lights, including street lights, should be shielded so the bulb can only be seen from below and use the lowest wattage bulbs possible.
• A fire management plan should be developed and implemented on site. It is noted that your Draft EA states that no smoking will be allowed and fire extinguishers and a 50-gallon drum of water with buckets will be available at all times.
If you determine that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. If the proposed project is funded, authorized, or permitted by a Federal agency, then that agency should consult with us pursuant to section 7(a)(2) of the ESA.
We appreciate your efforts to conserve listed species and native habitats. If you have questions regarding these comments or require further guidance, please contact Jodi Charrier, Endangered Species Biologist, at jodi_charrier@fws.gov

Jodi Charrier
Endangered Species Biologist
Maui Nui and Hawaii Island Team
U.S. Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Blvd
Honolulu HI 96850
(808) 792-9423

DEPARTMENT OF PUBLIC WORKS
COUNTY OF HAWAII
HILO, HAWAII

DATE: March 15, 2017

Memorandum

TO : Doug Lanterman
Kona RC Flyers

FROM : Ben Ishii, Division Chief
Engineering Division

SUBJECT : Environmental Report Preparation
Request: Airfield for Radio Controlled Aircraft
Applicant: Kona RC Flyers
Location: Kealakehe, North Kona, Hawaii
POR. Of TMK: 3 / 7-4-008:071 Lot 2 (SUB No. 7270)

We reviewed the Site Plan dated 2/12/17 and our comments are as follows:

1. We have determined that the proposed airfield is located within Flood Zone "X" according to the Flood Insurance Rate Map (FIRM) by the Federal Emergency Management Agency (FEMA). Zone X is an area determined to be outside the 500-year floodplain.

2. All earthwork and grading shall conform to Chapter 10, Erosion and Sediment Control, of the Hawaii County Code.

3. All development generated runoff shall be disposed of on-site and shall not be directed toward any adjacent properties.

Should there be any questions concerning this matter, please contact Kiran Emler of our Kona Engineering Division office at 323-4851.

KE
copy: ENG-HILO/KONA

Hawaii County is an Equal Opportunity Provider and Employer

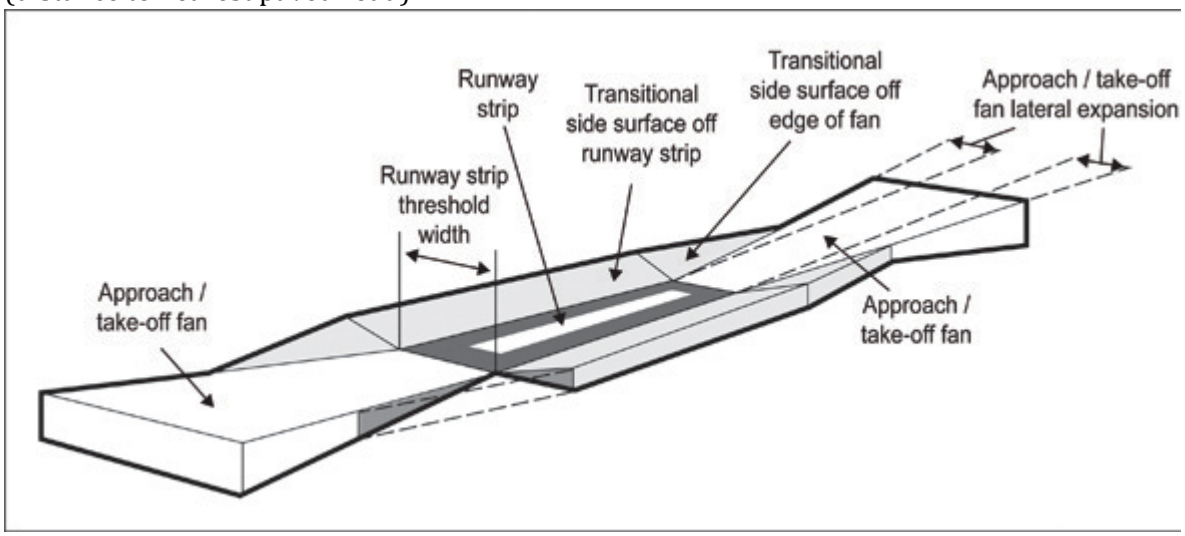
APPENDIX - 2
DEA Comment Letters and Responses

E-mail from UH-Manoa Student:

Aloha and good day to the KRCF Club!
I am writing a comment letter to you on your DEA for re-opening a model airplane airfield. I am a student with UH-Manoa taking a class on the Environmental Review process and have been asked to pick a current proposal and provide comments on it. I have chosen yours as I am the daughter of a model airplane enthusiast and grew up chasing down open soccer fields where we could fly planes and launch rockets. I am now an Air Force Civil Engineer with a little background in water resource management and airfield construction. As such, I fully support having a model RC aircraft club and hope my comments and suggestions will help you develop a stronger FEA and to obtain the proper permits.
General Comments:
I recommend getting a non-member to revise and edit your application. There are a few sections where a bit of tunnel-vision and single mindedness comes through. This is a low threat project, but the language leads the ready to feel other viewpoints were never considered.
Include some literature from AMA showing how the organization promotes aviation, safety, education, and community.
http://www.modelaircraft.org/files/memanual.pdf
Underscore the environmental benefits of a quiet airfield and compare them to the costs/risks. Your club does more than merely mitigate a few, limited risks. While the built elements of the airfield create about 0.14 acre of impervious surface ((375+155)*10+600+160=6,000sf), this is less than 1% of the total pervious area and relatively insignificant. As you are close to the ocean there could be concern if your club routinely spilled gas/oil/chemicals onto the ground. Advertise that you are safe with these materials and that any spills are contained and cleaned up. Similarly, I recommend you add comments about how SoilTac works (With what frequency does it need to be re-applied? Why do you use it? (erosion control and aircraft protection)). Also, airfields are more than just the runway. Your club is responsible for maintaining the grounds and grasses. By keeping these areas tidy of debris and polluting litter, you are protecting the ocean and promoting citizenship in those who would use or see the land when you are not active.
I don't fully understand the connection of a squatter to your permit being revoked. Additionally, when looking at the "permit" for the Adopt-a-Harbor, I don't see where you were given permission to fly precisely, just permission to access the field for volunteer clean-up for a one-year period. It's important to stress prior, uncontested use of the airfield without consequences, but I can't see how a mysterious person is

to be blamed, especially if there's nothing to address the prevention of a repeat situation.
Under costs. I think there's some blurring between county/state sunk costs, club incurred costs, and ongoing maintenance costs. Specify what has already been done, what needs to be done (and costs), and how both the club and the public could benefit.
Under alternatives and throughout the document, work on adding specificity.

- What is the minimum length and width of runway needed? What is the material composition? What kind of clearance do you need for a take-off and landing slope? (Use a picture like the one below.)
- How much is the airfield used? IE. Weekly club meetings of 20 users, flying about 27 aircraft for 40 sorties over an 8-hour period. No more than 4 models are airborne at a given time and sound is minimal at a distance of a quarter mile (distance to nearest paved road).



http://unitaryplan.aucklandcouncil.govt.nz/HTMLSept/Part%203/Chapter%20J/1%20Infrastructure/Chapter%20J%20-%201.1%20Airport%20Approach%20Path.htm

- Who is liable to complain about the existence of a model aircraft field? What are the safety limitations on population proximity? How is this site well suited to meet those standards?

Try to create a consistent reference point on each map (like highlighting the airfield, sunshade, and conex box). Some of the maps and scales don't make it easy to see what you're trying to prove.

Itemized list of grammar/spelling/writing improvements:

Page	Paragraph	Line	Current	Recommendation
5		All	Topics and Subtopics missing page references and formatting for ease of access.	**1. SUMMARY……6** **2. PROJECT OVERVIEW……7** **2.1 Proposed Action……7** **2.2 Project Need……7** **2.3 Project Narrative……7**
7	All		Topics and subtopics	Label Topics and subtopics in

			not labeled for ease of reference or transition.	accordance with Table of Contents numbering
7	4 (Project Narrative)		1. Flying site clearing of trash/wreckage 2. Liter control at entrance/pathway 3. Improve area suitable for flying RC aircraft. (Direct copy from permit application)	1. Keep flying site clear of trash/wreckage. 2. Litter control at entrance/pathway 3. Improve RC aircraft airfield through basic grounds maintenance.
7	5	6-7	"KRCF was given a Notice to Vacate September 16, 2016, as a result to being near a squatter on the land and the determination that the parcel belonged to the Land Division."	What about the squatter drove a vacate? Law? Public safety? Noise violation? Expired permit?
7	6	4	"the growing need of hobbyist's recreational flying of model aircraft."	"the safe flying of recreational hobby aircraft. This field has grown by X members every year and we need X acres of open space to safely accommodate our members."
8	1	All	KRCF is supported only by member donations. No salaries are paid. No fees are charged. No fund raising tournaments are held. It is a 501(c)(3) Hawaii corporation.	Notes on Financial Support: • KRCF is supported only by member donations. • No salaries are paid. • Etc…
8	2	1	Early consultation was begun…	Early consultation began in…
10	2	3	"center of the model aircraft main runway"	I think FAA regs usually discuss deconflicting edges of airspace. While the center of the airfield is 5.4 miles from Kona Int'l Airport,

				the flying airspace probably shouldn't overlap without express written approval from Kona's Air Traffic Control.
12	1	14	"Among other things"	Delete this phrasing. It's not specific and therefore leave you open to challenges or sounds like a casual dismissal. (This entire paragraph needs bullets or to be put into prose.)
12	2?	2	"The Academy of Model Aeronautics (AMA) was created in 1938 is…"	"Created in 1938, The Academy of Model Aeronautics (AMA) is…"
12	2	7	2500	2,500
12	3	All	Flying model aircraft is an amazing, lifelong hobby. We are accessible to children of all ages with club members in their 20s and some in their 80's. Flying models promotes interest in science and aviation, particularly among students. Our club is open to teach students and keiki about flight as well as being a place for aviation tourists to respect and see the island without impacting its natural beauty. Model aircraft teach engineering, circuitry, radio technology at various levels from simplistic to sophisticated. On the personal growth and community side, our pilots experience great successes, and sometimes-great failures (like crashing your plane). Our group provides each other the perseverance to pick up the pieces of a broken plane, put it back together, and fly again. This sharing community leads to the formation of lifelong friendships at the airfield. People who are having trouble with their planes can bring it to the airfield, ask for help, and they will get it! One of the most important aspects of this hobby (and the AMA) is safety and consideration. When members join the club and agree to adhere to AMA safety guidelines, they are promising to be custodians of the lands, of public safety, and of the hobby. This is why the FAA recognizes the AMA as *THE* community based organization for regulating and flying model aircraft.	
14-15	Flora and Fauna	All	Mixed use of bullets, >, ~ and indents.	Standardized the formatting and title "concerns" vs "mitigating actions

15	2	1	The Airfield creates no runoff. The underlying spoils absorb all rainwater.	Revise language. Airfield likely does create runoff if soiltac was used, however, runoff is probably absorbed as infiltration into substrate. What is lateral distance from airfield to pools? Are there any non-disclosed pollutants such as spilled oil/gas, rubber, broken plane parts, that could wash into the water system? Frequency of this being a concern?
16	3	1	"This location is over 1500 feet from the coast, and public roads and will have no Impact"	Not sure what you're trying to say with the double "and"s.
16	6	1	"DLNR-land Division"	"DLNR-Land Division"
16	7	1	"After flying many years at the Old Airport Park in Kona KRCF in November 2010 begin to look..."	Why the move? Who's the subject of this sentence?
16	7	1	"No other satisfactory sites in the area were found."	What area was searched? What areas were considered and why discarded? What is the criteria for a viable alternative?"
17	Item 7		(Too minor for any affect.)	Bold to standardize
19	Item 8	1	"airfield is located outside the 5-mile radius…"	Add "from the nearest active FAA airfield"
38	4	4		Last line of text cut off.

I wish you the best of luck on this and hope you don't have to wait much longer to have access to your airfield! Next time I'm on the island on a Sunday, maybe I'll see some of your planes flying overhead.

Very Respectfully,

Kristin A. Dembia

Compelled Student
Aviation Enthusiast
Caring Citizen

August 10, 2018

Aloha Ms. Dembia,

Thank you for your comments and suggested edits to help develop a stronger FEA.

KRCF has incorporated many of your comments and suggestions in its FEA as follows:.

The paragraphs are now numbered.

2.3 Project Narrative reference to a squatter is removed.

4.1 Project Location no conflicted airspace addressed.

4.6 Project Timeframe and Costs edited to make clear club incurred costs.

4.7 Economic Uses "among other things" deleted.

4.9 Flora and **4.10 Fauna** mixed use of bulleted paragraphs is removed. Mitigating actions are shown.

4.11 Soil and Climate edited to indicate the insignificant run-off risk.

4.15 Scenic and Open Space Resources edited to clear the double "and" s.

Regards,
Doug Lanterman
For Kona RC Flyers

Institute for Astronomy
Office of the Director

UNIVERSITY of HAWAI'I
MĀNOA

August 7, 2018

Department of Land and Natural Resources, State of Hawai'i
Keiki, E. Kipapa, Property Manager
Division of Boating & Ocean Recreation
4 Sand Island Access Rd.
Honolulu, HI 96819

Re: Honokohau Model Aircraft Airfield
Draft Environmental Assessment and Finding of No Significant Impact

Dear Ms. Kipapa:

Thank you for the opportunity to comment on the draft Environmental Assesment and Anticipated Finding of No Significant Impact (DEA-AFONSI) referenced above (published July 8, 2018), specifically with respect to issues and concerns regarding light pollution.

The University of Hawaii Institute for Astronomy (IfA) conducts research in astronomy using telescopes located on Haleakala and Maunakea and operated by IfA and our partner institutions. Both Haleakala and Maunakea are among the best sites in the world for astronomical facilities because of their elevation, clear skies, favorable atmospheric conditions, and low levels of light pollution. Hawaii-based observatories have played major roles in the advancement of astronomy and astrophysics for over 50 years and are well positioned to remain at the forefront of astronomical research for decades to come.

Because of the outstanding quality and productivity of these facilities, IfA is acutely concerned about negative impacts on astronomy from increased light pollution. Our work to combat light pollution has also brought us into contact with others concerned about light pollution for other reasons, including impacts on wildlife (particularly seabirds) and on human health.

With that background, we offer the following comments on the DEA-FONSI:

The draft EA does not provide enough information to comment on the adverse effect that the facility will have on the astronomical observatories on Maunakea. It merely mentions the possibility that artificial lights will be used at night. The type of light is not mentioned. Any lighting used must confirm with the County of Hawaii listing ordinance, which is presently undergoing a major revision.

Any new or additional artificial light at night has an adverse effect on astronomical observations by increasing the night sky brightness. Nearly all observations performed by the telescopes on Maunakea are sky-noise limited. This means that they are limited by the brightness of the night sky. In the absence of artificial light, there is a natural night sky brightness coming from airflow and zodiacal light. Artificial light increases the sky brightness, thereby decreasing the sensitivity of the telescopes.

The proposed project is located on the island of Hawaii, with direct line of sight to the summit and the telescopes located adjacent to the summit. The draft EA does not provide enough

2680 Woodlawn Drive
Honolulu, Hawai'i 96822
An Equal Opportunity/Affirmative Action Institution

information for the adverse effect to be calculated, or for us to recommend appropriate steps to mitigate. The document merely mentions the possibility that lights will be used at night. Any new lights will have an adverse effect on astronomical observations by incrementally increasing the night sky brightness, effectively making the telescopes smaller and less sensitive.

Appropriate steps to reduce impact on the observatories would include:

1. Using NO light at night. This is the preferred approach. If no light is used, there would be no impact on the observatories.

2. Using lights that are activated by motion sensors, in a manner such that no light is emitted when no one is at the facility. Our understanding is that most of the activity at the facility will be during the daytime, so we believe that use of only lights that are activated by motion will be a good step to reduce impact on the observatories. We also believe that this strategy will improve security compared to static lighting because presence of a light will indicate presence of a person who should not be there.

3. Any lighting at the facility must, by existing state law, follow the Hawaii County lighting ordinance. It must also follow state law requiring full shielding. Note that revisions to the county lighting ordinance are presently being discussed, and may occur in the next few months. Any lighting at this facility should confirm to the new lighting ordinance when it is updated.

4. If lighting is going to be used at night, the minimum possible amount should be used. Motion sensor activated lighting is strongly preferred. Blue light is most harmful to the observatories, so blue-deficient lighting should be exclusively selected. The best choices are filtered LED lights, or amber LED lights. Under no circumstances should high-intensity discharge lamps such as metal halide be used; fluorescent lights also must be avoided. Both of these types of lamps use mercury and emit light at wavelengths that is very damaging to astronomy.

5. White light should be avoided because the blue component of white light is very damaging to astronomy. The proposed usage does not appear to require white light at night. White light should always have a Correlated Color Temperature of 2700 K or below. White light is likely prohibited for this usage by the present lighting ordinance.

Thank you for your consideration of these comments and attention to IfA's concerns.

Very truly yours,

Robert McLaren
Interim Director

KONA RC FLYERS INC.
77-6436 Kilohana Street
Kailua Kona, HI 96740
Our mission is to educate the public on all aspects of model aviation including applicable rules and regulations; design; building and flying.

10 August 2018

University of Hawaii-Manoa
Institute of Astronomy
Office of the Director
2680 Woodland Drive
Honolulu, Hawaii 96822

Re: Your letter Dated August 7, 2018
Honokohau Model Aircraft Airfield
Draft Environmental Assessment and Finding of No Significant Impact

Dear Mr. McLaren,

Thank you for your concerns regarding light pollution.

The Kona RC Flyers airfield is on a site without power. It does not fly at night. No light pollution will occur.

Sincerely,

Doug Lanterman
For Kona RC Flyers