

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawaii

April 24, 2009

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

Land Board Members:

SUBJECT: FOREST RESERVE ENFORCEMENT REGARDING
UNAUTHORIZED LOGGING OF 32 KOA TREES FROM THE
HUMUULA SECTION OF HILO FOREST RESERVE, NORTH
HILO DISTRICT, HAWAII, TMK (3) 3-7-001:008.

By: Mr. Jay Warner
dba Awapuhi Farms and Mill
18-4254 N. Peck Road
Mountain View, HI 96771

Land Ownership: State of Hawaii

TMK: (3) 3-7-001:008

Legal Reference: Chapter 183C, Hawaii Revised Statutes (HRS), Chapter 13-5
Hawaii Administrative Rules (HAR)

Location: Portion of Government lands situated at Humuula, North Hilo,
Hawaii, identified by Tax Map Key: (3) 3-6-6:46 (Exhibit A)

Area of Unauthorized use: Approximately 50 acres affected including tree cutting

Area of Parcel: 860.692 acres

Zoning: Conservation, Resource sub-zone

Trust Land Status: Section 5(b) lands of the Hawaii Admission Act

DHHL 30% entitlement lands pursuant to the Hawaii State
Constitution: No

Current Use Status: State Forest Reserve

Description of Area: The subject parcel TMK (3) 3-7-001:008 is bounded by State Forest Reserve lands to the northeast (TMK (3) 3-7-001:004), leased Land Division land to the northwest (TMK (3) 4-1-006:002), Department of Hawaiian Home Land to the southwest (TMK (3) 3-8-001:009) and Parker Land Trust land to the southeast (TMK (3) 3-7-001:003). The latter three parcels are located within the State Land Use Agricultural District. The State Forest Reserve is located in the Resource Subzone of the Conservation District. The affected area on the subject parcel is forested, comprised of a mixed koa-ohia overstory, and mixed native-alien understory. The area lies on the boundary between the ahupuaa of Humuula and Waipunalei, at approximately 4,600 feet in elevation (Exhibit A).

Background: On July 16, 2007 the Division of Conservation and Resource Enforcement (DOCARE) received a complaint from Steve Bergfeld, Forester with the Division of Forestry and Wildlife (DOFAW), regarding alleged unauthorized logging of koa trees from subject State Forest Reserve. Details of the complaint were collected and subsequently filed by DOCARE.

Some of the details Mr. Bergfeld provided in that complaint included:

- He first became aware of the incident on June 7, 2007 when he, his colleague Mr. Bob Otomo and Mr. Brandy Beudet of Parker Ranch conducted an inspection of an old boundary fence line to consider potential fence replacement for cattle control purposes.
- This boundary lies between the Humuula Section of Hilo Forest Reserve and adjacent lands in Waipunalei owned and managed by Parker Ranch.
- Mr. Bergfeld had been informed by Island Survey Inc., which had completed a survey of Waipunalei for Parker Ranch in 2005, that the correct boundary between State and private land in the vicinity of this incident traveled down the middle of Kawalii gulch.
- He was aware that Mr. Warner had a contract at that time to harvest koa from Parker Ranch's Waipunalei lands.
- During the fence inspection, Mr. Bergfeld noticed that the old fence line, which apparently had been constructed years ago by Parker Ranch, veered from the middle of the gulch on to the State side for distances up to 50 yards, and it appeared that recent koa logging had been conducted up to the old fence line.
- Mr. Bergfeld subsequently contacted and explained his observations to Mr. Warner, who apparently was upset and stated that "We made a mistake and we will do whatever it takes to make it right."
- In closing the complaint, Mr. Bergfeld stated that he believed the unauthorized logging may have been accidental.

DOCARE subsequently contacted and interviewed Mr. Jay Warner on September 28, 2007. Some of the details Mr. Warner provided DOCARE included:

- Mr. Warner had a contract for salvage koa harvesting from Parker Ranch Waipunalei lands since October 2004.
- The koa logging relating to this incident occurred in approximately September 2005 or a little earlier.
- Mr. Warner believes that the old fence in the vicinity of the incident is 80 or more years old.
- Mr. Warner's company was historically the fourth and most recent to log koa from this area.
- Mr. Warner appears to suggest that DOFAW foresters who conducted a follow-up survey of the incident had numbered all the recently harvested stumps on State land, and that he did not dispute that those marked where harvested by his company.

DOCARE subsequently contacted and interviewed Mr. Brandy Beudet of Parker Ranch on October 16, 2007. Some of the details Mr. Beudet provided DOCARE included:

- That Mr. Beudet and Mr. Bergfeld were aware that the Humuula-Waipunalei boundary in the area of the incident followed the center of Kaawalii Gulch.
- That a portion of the gulch had just been surveyed and was being recorded at the State Surveyor's office.
- Upon approaching the incident area when walking with Mr. Bergfeld and Mr. Otomo on June 7, 2007, Mr. Beudet's statement suggests that he quickly surmised that koa logging may have crossed over into State Forest Reserve, and that he was the first to bring up this idea by asking Mr. Bergfeld if he understood what they were looking at.
- Mr. Beudet's final statement of the interview was "We [Parker Ranch] have worked on many projects together with the State and would like to maintain this relationship."

DOCARE summarized and concluded in its investigation report:

- The old fence built by Parker Ranch 80 to 100 years ago was intended to separate the boundary between State Forest Reserve (Humuula) and Parker Ranch lands (Waipunalei).
- Parker Ranch did encroach on to State property [in the incident area] when the fence was built, with the misaligned sections encroaching up to 50 yards on to State land.
- Mr. Warner's operation did take and salvage koa timber from the Humuula Unit of Hilo Forest Reserve by assuming Parker Ranch land ownership extended up to the old fence.
- No Commercial Harvest Permit or CDUP were obtained by Parker Ranch or Mr. Warner prior to the recent koa salvage logging operation.
- Based upon the investigation, the koa logging appeared to be accidental.

Discussion: It appears that the Parker Ranch employees who built the fence 80 to 100 years ago in the vicinity of this incident may have chosen an alignment on the State side of Kaawalii gulch for ease of construction. It also appears that when cutting trees that Mr. Warner assumed that

Parker Ranch land ownership extended up to the fence. In harvesting 32 mature koa trees on State Conservation lands without a permit approved by the Board of Land and Natural Resources (Board), Staff believes that Mr. Warner violated HRS section 183C-6, and HAR sections 13-5-22 and 13-5-24.

Although this area has been logged several times historically, Staff believes that heavy equipment tracks and evidence of tree harvesting and milling observed in the area provided ample indication as to which tree stumps represented logging by Mr. Warner in recent years. Staff concurs that the logging of koa trees from Hilo Forest Reserve by Mr. Warner appears to have been accidental.

Pursuant to HRS section 183C-7 staff suggests combined financial compensation to the Department and site mitigation work by Mr. Warner relating to this incident in the following categories:

Administrative Costs:

DOCARE and DOFAW staff time and associated costs expended in investigating and documenting this incident totaling \$4,300 as follows:

DOCARE staff time	\$1,500
DOCARE vehicle use	\$120
DOFAW staff time	\$2,480
DOFAW vehicle use	\$200
<u>Total</u>	<u>\$4,300</u>

Fines:

Pursuant to HAR sections 13-5-22 and 13-5-24, a permit is required from the Board for commercial forestry activities in the Resource Subzone of the Conservation District. Because Mr. Warner did not obtain such a permit, a fine of up to \$2,000 per violation is applicable to this incident. Staff feels that a fine is a critical component of this administrative action as there must be a disincentive placed on unauthorized koa logging from State lands. In this incident, violations include logging without the appropriate Conservation District Use Permit (CDUP), Timber Land License or Commercial Harvest Permit, as well as destruction and/or removal of 32 mature koa trees, for a total of 33 violations. Staff suggests a fine of \$2,000 for the lack of a CDUP, and \$750 for each tree as this incident appears to have been accidental – for a total fine of \$26,000. Furthermore, Staff suggests that Mr. Warner compensate the Department by conducting a combination of the following services within two (2) years of this Board action, which have a value equivalent to at least \$26,000, and shall substitute as in-kind payment in lieu of a \$26,000 cash payment:

- A. Road repair/maintenance/construction in the Laupahoehoe and Humuula Sections of Hilo Forest Reserve at the following rates per hour:
- | | |
|---|----------|
| Cat D-7 | \$200.00 |
| Cat D-3 w/rake | \$140.00 |
| Cat Skidder w/ grapple | \$110.00 |
| J.D. Forwarder/dumper | \$110.00 |
| J.D. Front End Loader w/ bucket and forks | \$85.00 |
| International Paystar 5000 63,000 GVW | \$95.00 |
| Nissan UD dump 33,000 GVW | \$75.00 |
- B. Fence maintenance/construction in the Laupahoehoe and Humuula Sections of Hilo Forest Reserve at a rate of \$100.00 per hour plus costs of materials.
- C. Lumber millwork including log harvesting, milling and lumber drying at a rate of \$3.00 per board foot.

The Board is requested to delegate authority to the DOFAW Hawaii Branch Manager to specify and monitor the services to be provided by Mr. Warner.

Damages:

HRS section 183C-7 provides that any person violating that chapter shall be subject to a fine, costs associated with land or habitat restoration, and damages to public land or natural resources, or any combination thereof. Staff is requesting that Mr. Warner be assessed the amount of \$53,648 that represents damage to the natural resources in the form of the trees harvested from state conservation district land without a permit.

Thirty-two trees containing a minimum of 35 log sections were harvested from Hilo Forest Reserve during this incident. Using two formulas (Exhibit B) developed by DOFAW in 2001 for predicting net cubic foot volume harvested from koa trees based on stump size, and assuming a conversion ratio of six (6) net board feet per net cubic foot, DOFAW estimated that Mr. Warner harvested 13,412 net board feet of koa from State land. The DOFAW models are based on formulas derived from a large data set of previously measured koa trees and quantitative statistical modeling methods. At the time of this logging incident, DOFAW was charging \$4.00 per board foot for commercial harvest of koa wood from DOFAW-managed State land. Based on the DOFAW price and board foot estimate, koa wood representing a total value of \$53,648 was removed by Mr. Warner relating to this incident.

Habitat Restoration:

Also pursuant to HRS section 183C-7, Staff suggests that Mr. Warner be required to conduct habitat restoration work, at his own expense, in the form of reforesting approximately 25 acres of the 50 acres of Forest Reserve lands affected during this logging incident, as these 25 acres represent plantable terrain. Specifications for habitat restoration via koa reforestation within areas of Hilo Forest Reserve affected by this koa logging incident are as follows:

- A. Division staff will lay out the boundaries of the reforestation unit.
- B. Mr. Warner shall submit a habitat restoration plan to the Division within two (2) months of Board's decision on this matter. The plan will at a minimum detail how Mr. Warner shall plant dibble tube koa seedlings ranging in height from 1-2 feet or alternatively conduct soil scarification to obtain a minimum density of 400 koa trees per acre. Staff suggests this density because koa forest regeneration typically requires high initial densities which after being subject to natural thinning and mortality over decades, produce the widely spaced mature koa tree canopy typically found in native forests. Dibble tube seedlings will be provided by DOFAW.
- C. Planting will be initiated within 12 months of this Board action.
- D. Replacement koa planting shall be completed within three (3) months of initiating planting.

The Board is requested to delegate authority to the DOFAW Hawaii Branch Manager to approve the habitat restoration plan and to grant extensions on the initiation and/or completion of planting operations for good cause. If after approval of the habitat restoration plan, the Chairperson determines that Mr. Warner has not substantially fulfilled his responsibility to implement the plan, the matter may be returned to the Board for consideration of further enforcement including imposition of additional fines for non-compliance.

In summary, staff suggests that Mr. Warner be required to conduct forest mitigation and in-kind site maintenance work in lieu of fines, as well as pay the Department costs and damages equal to \$57,948 to the Department of Land and Natural Resources at the following address:

Division of Forestry and Wildlife
P.O. Box 4849
Hilo, HI 96870

RECOMMENDATIONS:

1. That the Board find Mr. Warner in violation of § 183C-6, HRS, §13-5-22 HAR and §13-5-24, HAR, and imposes the following penalties:
 - a. Mr. Warner shall pay \$57,948 to the Department, representing \$4,300 in Administrative Costs and \$53,648 in Damages as detailed above. Payment of \$57,948 may be made in the amount of \$5,000 within fourteen (14) calendar days of this Board action, subsequently \$5,000 on or before the same day for the following ten (10) months, and \$2,948 the final month.
 - b. In lieu of payment of a cash fine, Mr. Warner shall conduct site maintenance and construction work as detailed in the "Fines" section above, at his own expense and equivalent to the fine value of \$26,000.
 - c. Mr. Warner shall conduct koa reforestation work as detailed in the "Habitat Restoration" section above, at his own expense, within areas of Hilo Forest Reserve affected by this koa logging incident.

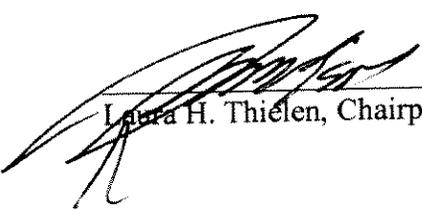
2. That the Board delegate authority to the Division's Hawaii Branch Manager to:
 - a. Specify and monitor site improvement services to be provided by Mr. Warner as discussed above, which will have a value equivalent to at least \$26,000, in lieu of a cash payment for fines.
 - b. Approve the habitat restoration plan and to grant extensions on planting operations for good cause, as discussed above.

Respectfully submitted,


PAUL J. CONRY, Administrator

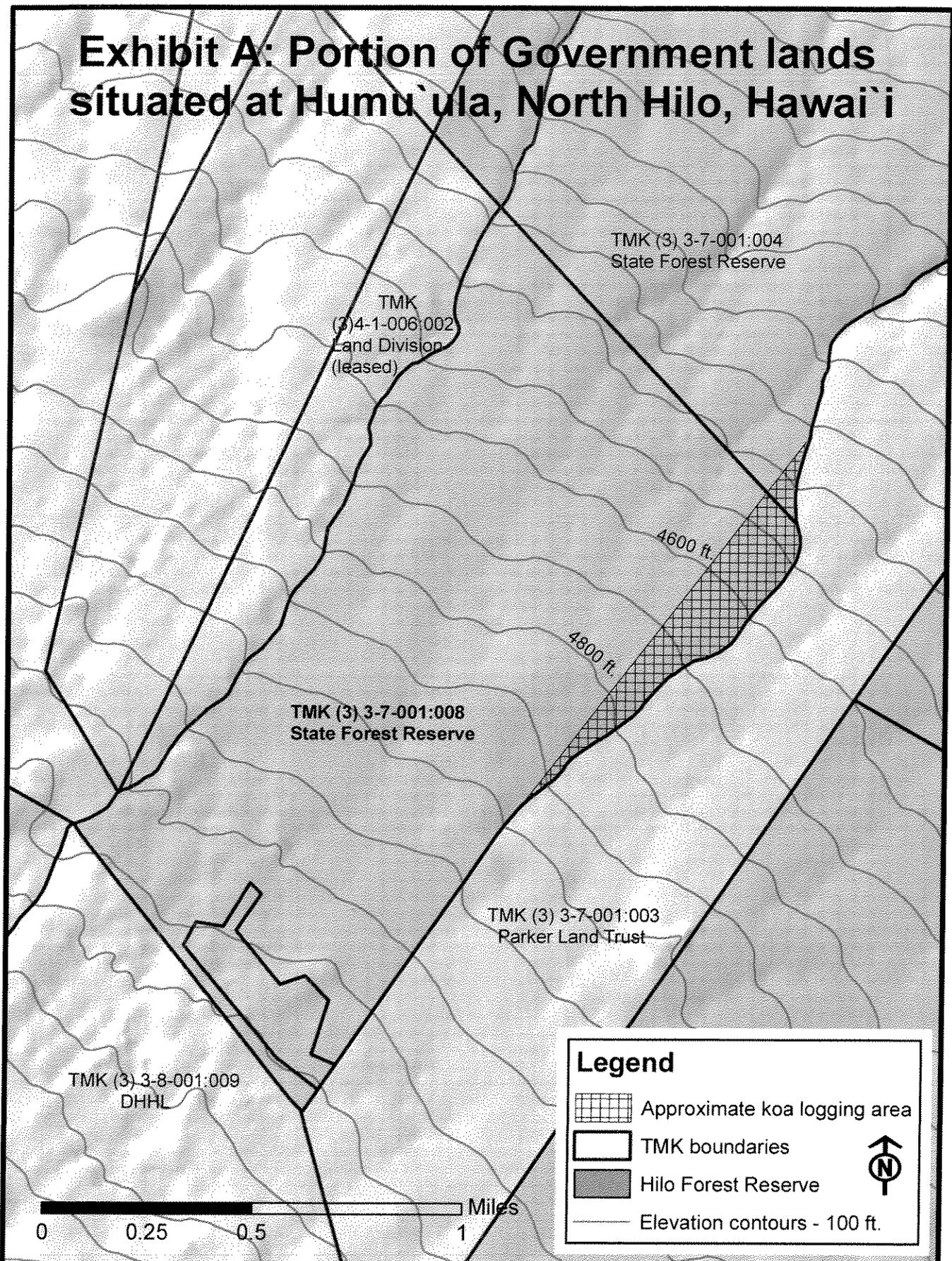
Attachments (Exhibits A&B)

APPROVED FOR SUBMITTAL:



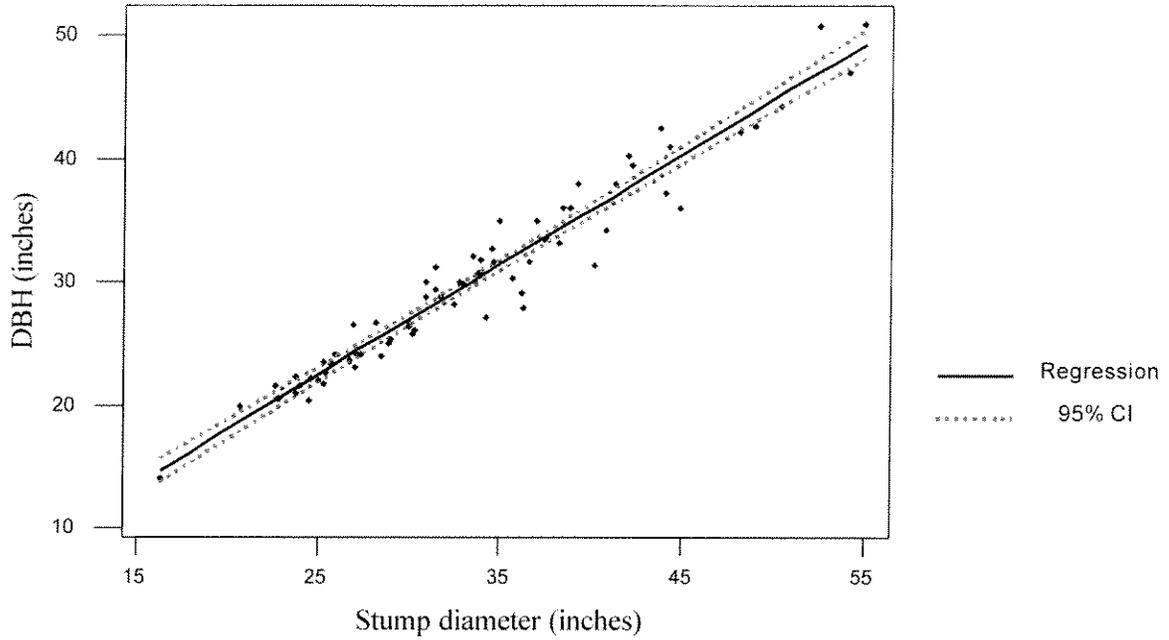
Laura H. Thielen, Chairperson

Exhibit A: Portion of Government lands situated at Humu`ula, North Hilo, Hawai`i



Model 1 showing relationship between stump diameter and DBH (n = 72, r-sq. = 0.94).

$$DBH = 0.169318 + 0.893595 \times \text{stump D}$$



Model 2 showing relationship between tree DBH and net volume in bole and branch log sections (n = 295, r-sq. = 0.65). Natural log transformation applied to both axes.

$$\ln(\text{net bole} + \text{branch volume}) = -4.42551 + 2.46259 \times \ln \text{DBH}$$

