

## Hawaiian Hoary Bat

### *Thermal IR and Acoustic Monitoring Project for Tree Trimming of Eucalyptus robusta at Wheeler Elementary School on 25 June 2016*

#### Survey Goals

Establish whether or not Hawaiian Hoary bats (*Lasiurus cinereus semotus*) are roosting with pups in *Eucalyptus robusta* trees that require trimming as they are interfering with the airspace view of the runway's airtraffic control tower. The Airfield Manager wants the trees pruned to a height of probably 30-40 feet to get the proper view. If bats present, discuss with regulatory agency possible mitigation measures to continue project or postpone removal of trees until pupping season is completed.

#### Survey Map

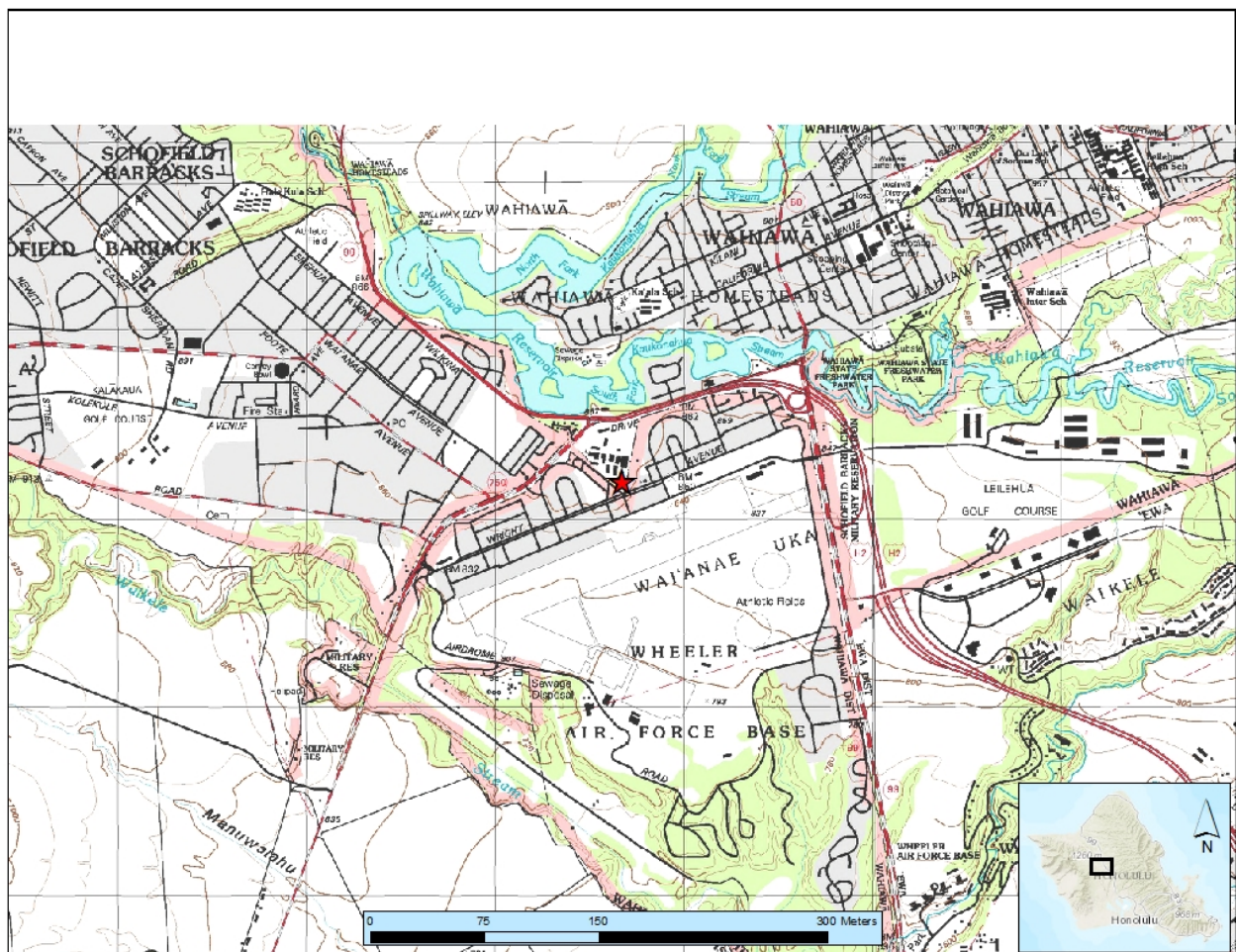


Figure 1. Map of the Wheeler Elementary School project site which Hawaiian Hoary bat surveys were conducted. Red dot indicates location of the site.

(15) Eucalyptus tree removals proposed :

NOTE:

Tree approximate heights

- 1- Tree# 40= ----- 50'
- 2- Tree# 39= ----- 80'
- 3- Tree# 38= ----- 70'
- 4- Tree# 36= ----- 70'
- 5- Tree# 35= ----- 75'
- 6- Tree# 34= ----- 70'
- 7- Tree# 33= ----- 15'
- 8- Tree# 32= ----- 8'
- 9- Tree# 31= ----- 55'
- 10- Tree# 30= ----- 55'
- 11- Tree# 29= ----- 50'
- 12- Tree# 28= ----- 55'
- 13- Tree# 27= ----- 55'
- 14- Tree# 26= ----- 55'
- 15- Tree# 23= ----- 55'

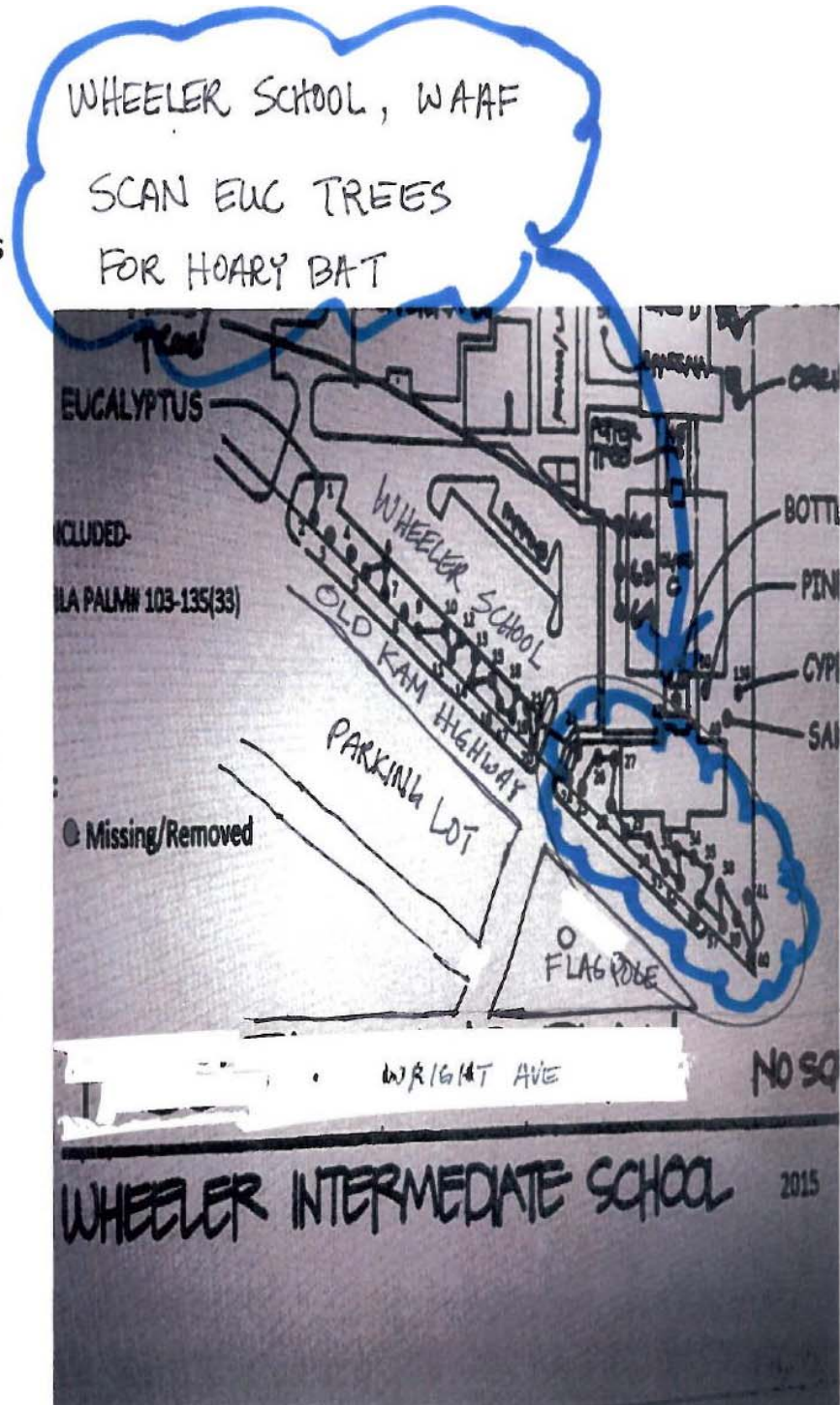


Figure 2. Map of *Eucalyptus* locations

## Survey

### Methods

Visual and acoustic surveys for bats were conducted on 25 June 2016, the day of the scheduled tree trimming. A Fluke Ti400 thermal imager was employed to scan the trees for any roosting bats to confirm no presence. OANRP also employed the hand held Wildlife Acoustics Echo Meter Touch attached to an iPad as a way to scan the area for any possible bats returning to a roost within close proximity. This tool has the ability to listen to bats in real time, GPS tracks and tags all recordings with location information and has full color spectrograms. Scanning commenced from 05:00-06:30 from the ground from different angles and locations.

## **Results and Discussion**

The visual thermal IR and acoustic surveys detected no bats at all. Multiple species of birds were observed with the thermal IR, with visual confirmation, in and around the area. It was determined that there would be No Effect to bats if the trees were removed.

## **Recommendations**

Work with DPW to better monitor the contractors work so that trees that need trimming are not missed prior to the pupping season.