

APPENDIX F-2
Nene (Hawaiian
Goose) Survey

INTRODUCTION

SURVEY CONDUCTED ON JULY 16, 2012
FOR THE NENE OR HA WAIIAN GOOSE (*Bramia sonniverensis*)
PU'UNENE HEAVY INDUSTRIAL SUBDIVISION PROJECT
PULEHU, MAUI

The Pu'unenē Heavy Industrial subdivision project lies on 86 acres of undeveloped land in lower Pulehu, East Maui TMK (2) 3-8-08:19. Also included in this survey are the primary access road and the alternate access road to the project (see Figure 1). The project area has a plantation reservoir to the north, sugar cane fields and a rock crusher/cement operation to the east and south, and Maui Raceway Park to the west. The project area lies about a mile to the east of Mokulele Highway. This nēnē survey was initiated by the owners in response to comments received during the review of the biological studies submitted in support of the Environmental Assessment for the Pu'unenē Heavy Industrial Subdivision Project.

SITE DESCRIPTION

This area was the site of a former hog farm operation and as a result is heavily disturbed by intensive human and animal use. Much of the area remains cleared of vegetation with a network of old asphalt roadways. The existing vegetation consists mostly of buffelgrass (*Cenchrus ciliaris*) with scattered kiawe trees (*Prosopis pallida*). The terrain is gently sloping down to the west at elevations from 110 feet to 140 feet above sea level. Soils consist primarily of Waiakea Extremely Stony Silty Clay Loam (Foote et al, 1972). Rainfall averages about 12 inches per year with the bulk falling in a few winter storms (Armstrong 1983).

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SURVEY OBJECTIVES

This survey was called for to assess the potential of this project area for providing habitat for nēnē even if only incidental or temporary in nature and to document any such usage. It was intended to provide a random "snapshot" in time to assess this potential.

METHODS

The survey was conducted as a walk-through reconnaissance to all parts of the project area. Binoculars were employed to get a detailed view of any nēnē activity on the ground or in the air. Nēnē are large and often vocal birds whose presence is easy to detect, especially in such open habitat as is found on this property.

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RESULTS

No nēnē were seen on the ground or in flight over the project area. Many smaller birds were fairly plentiful including gray francolins (*Francoelinus pondicerianus*), black francolin (*Francoelinus francolinus*), zebra dove (*Geopelia striata*) and spotted dove (*Streptopelia chinensis*), but none of the much larger nēnē were observed anywhere on the project area. There was little in the way of food or water resources on this property that would attract nēnē here.

DISCUSSION AND CONCLUSIONS

Nēnē are vegetarians that eat a variety of grasses, small fruits, seeds and other herbaceous vegetation. They prefer damp or wet sites with succulent young grasses. They are also powerful fliers that can cover many miles in search of preferred resources. They can often be seen on irrigated areas such as newly planted cane fields, large parks, golf courses, pastures and even on hydromulched roadside banks. Their use of such areas is unpredictably intermittent and temporary. Each of these wide-ranging, temporary resources can be termed important habitat for these Endangered nēnē, but to call any one of them essential to their survival is too much of a stretch.

The 86 acre project area is an un-irrigated parcel that is located in one of the driest parts of Maui. The area experiences long, hot and dry summers during which the grasses and herbaceous plants become sear and withered. In even a substantial wet season here the vegetation is tough and the greenness fleeting. There is nothing in this environment that would equate to preferred habitat for nēnē or which would attract them to feed or breed here. That no nēnē were observed here during this survey is an expected outcome, consistent with the existing environmental resources.

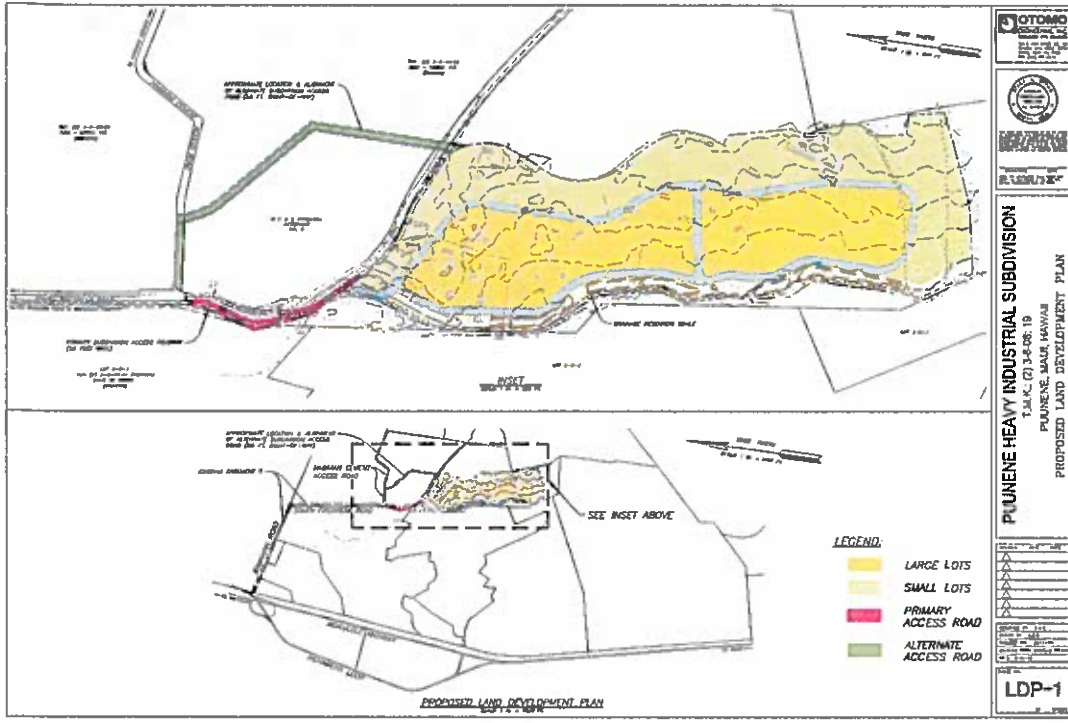


Figure 1

LITERATURE CITED

- American Ornithologists' Union. 2011. Check-list of North American Birds. 7th edition. American Ornithologists' Union, Washington D.C.
- Armstrong, R. W. (ed.) 1983. Atlas of Hawaii. (2nd ed.) University of Hawaii Press.
- Foote, D.E., E.L. Hill, S. Nakamura, and F. Stephens. 1972. Soil survey of the islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. U.S. Dept. of Agriculture, Soil Conservation Service. Washington, D.C.