

PROPOSAL FOR THE EXTENSION OF KA`ENA POINT
NATURAL AREA RESERVE

March 2011

I EXECUTIVE SUMMARY

A 0.75-acre parcel is proposed to be added to the Ka`ena Point Natural Area Reserve (NAR). Designation of this area as a NAR is meant to protect and help restore a larger wilderness area. The area is currently private land. This parcel will need to be acquired before designating it an extension of the Ka`ena Point NAR.

II INTRODUCTION (General)

Ka`ena Point has significant biological, historical, cultural, and geological values. Since the NAR was established in 1983, significant recovery of native vegetation and wildlife has occurred. Management by the NARS has also protected important historical, cultural, and geological features from damage from vehicles. NARS has also increased awareness and educational opportunities in this area. The nominated parcel is adjacent to the NAR and the Ka`ena Point State Park Reserve and contains many of these important features and potential for recovery.

Priority threats to these resources are off-road vehicular use, invasive species, and illegal human activities.

III BACKGROUND AND HISTORY

Past and Present Land Use and Conservation History

The project area is one of the last relatively wild areas on O`ahu and has been valued as a natural escape from the pressures of urban life. Ka`ena Point NAR is accessible to the public by foot or bicycle, and its primary uses include recreation, hiking, nature study, education, and the observation of wildlife. Shore fishing, spear fishing, and gathering of marine resources have traditionally been important uses of the Ka`ena coast.

This parcel is located in the Resource Subzone of the Conservation District and within the County Special Management Area. This parcel may have been used by small villages that populated Ka`ena Point in the 1800s and early 1900s, and affected by the railway constructed mauka of the parcel in 1898 to service sugarcane operations and active military use in Ka`ena Point for coastal defense after World War I through World War II. Military use declined after World War II and the railway ceased operation in 1947. In 1971, the State Department of Transportation developed plans for a two-lane paved road around Ka`ena Point that would pass nearby the subject parcel. Due to significant opposition from the public, the concept was withdrawn. However, every so often, the idea of a road connecting the North Shore and Wai`anae coast through Ka`ena is raised again at the Legislature, most recently in 2000 (SCR

160). Continued public opposition, combined with the estimated high cost of the project, has prevented the road from becoming a high transportation priority.

During the 1970s, the State began to purchase lands in the area for a proposed Ka'ena Point State Park. In 1978, a Ka'ena Point State Park Conceptual Plan was completed. Ka'ena Point NAR was established in 1983, by Executive Order 3162, to protect a portion of the most extensive remnant dune system on O'ahu from damage and degradation caused by off-road vehicle use, erosion, and the spread of invasive species. At the time the NAR was created, these factors had largely destroyed most of the native vegetation within the NAR, making it unsuitable for use by nesting seabirds. After the establishment of the NAR, vehicular access to most of the reserve was blocked, and recovery of native vegetation has been significant, with increasing numbers of endangered plants such as 'ohai (*Sesbania tomentosa*) and recovery of the rare coastal naupaka (*Scaevola sericea*) community.

As the coastal habitat has improved, and predator control has been initiated, increasing numbers of 'ua'u kani, or wedge-tailed shearwaters (*Puffinus pacificus*), and Laysan albatrosses, or mōlī (*Phoebastria immutabilis*), began to breed in the NAR. Wedge-tailed shearwater chicks hatching at Ka'ena have increased in number from zero in 1995 to over 1,500 in 2007. Laysan albatross alone have increased from zero pairs in 1989 to approximately 60 nesting pairs in 2007. The reserve also acts as refuge for the endangered Hawaiian monk seal or 'Īlioholoikauaua (*Monachus schauinslandi*), and honu or green sea turtles (*Chelonia mydas*), koholā or humpback whales (*Megaptera novaeangliae*), and nai'a or spinner dolphins (*Stenella longirostris*) are often viewed just offshore.

The parcel nominated as a NAR extension is approximately 1,450 feet east of the boulder barricade on the Mokuleia side of the NAR. It contains a small cove that is popular for fishers and beachgoers. The beach dunes in this parcel have the potential for restoration demonstrated in the areas protected by the Natural Area Reserves System (NARS).

Cultural and Historical Significance

This parcel is part of the culturally and historically significant landscape of Ka'ena Point. The relationship in Native Hawaiian culture between the people and Ka'ena Point is demonstrated through traditional mele (songs), pule (prayer chants), genealogical records, and stories that celebrate the qualities and features of Ka'ena, and through the strong attachments of kama'āina to ancestral homelands. A description of the rich and significant cultural and historical significance of this area is outside the scope of this nomination, however DLNR has created and distributed more detailed archeological, cultural, and historical assessments of Ka'ena Point and vicinity. These include stories and place name meanings that provide invaluable information about Ka'ena and connect historic events with present use, with descriptions of such features as the Ka'ena Complex including the Leina ka 'Uthane, which is approximately 1,500 feet to the west of the subject parcel. One resource is a 2009 cultural impact assessment for the Ka'ena

Point Ecosystem Restoration project which summarizes the archaeological, cultural, and historical resources found at Ka'ena Point.¹

In addition to being part of the culturally and historically significant landscape of Ka'ena, this parcel contains coves and tidal areas that may have been canoe landing and salt collecting sites. A small portion of this area also contains sand dunes and sandy soils in which subsurface cultural deposits and burials are a high probability. This parcel may also have been part of several small fishing villages are thought to have existed in the area during the 1860s and 70s. A settlement called Nēnēle'a is documented as being about a mile east of Ka'ena Point, and several house foundations, measuring 14 x 20 feet, are documented from nearby areas. An 1832 census listed the population of the Ka'ena ahupua'a at forty-nine individuals. Based on the known fishing shrines, recorded interviews, and the number of stories, fishing was an important activity. Ka'ena is noted as an excellent fishing ground, and as mentioned before, this parcel continues to be used for fishing. Based on historic accounts and recorded traditions, there may be additional as-yet unidentified historic properties at Ka'ena Point and would most likely reflect uses and customs associated with the area's rich fisheries and the lack of any other dominant land use in this waterless hot area. These could include additional ko'a, the remnants of shelters and settlements for fishermen, burials, canoe landings, and salt-making sites.

The parcel and vicinity also contain part of the original train track of the former O'ahu Railway and Land Company (OR&L) railway. Completed in 1898, the railway connected Honolulu to Kahuku, via Wai'anae and Waialua. It was meant to serve plantation towns and ranches, but also became a scenic tour. Railway service ended and the railway was abandoned in 1947, after damage by a 1946 tsunami and a decline in railroad use caused by the increase of personal vehicles. Today, the railway bed forms the primary path used by visitors hiking out to the Point.

IV JUSTIFICATION (Specifics)

Scientific Value and Natural Communities and their Status

The inclusion of this area into the NARS is meant to expand protection to a coastal ecosystem. This type of ecosystem merits conservation and restoration effort because coastal areas have been severely modified by invasive species and human activity and development in Hawaii. Management and protection under NARS has resulted in widespread recovery of the coastal ecosystem nearby, which could occur in this parcel and surrounding areas if similarly protected.

A description of the scientific value of the entire Ka'ena Point area is beyond the scope of this document, however is available from various sources, including the Environmental Assessment for the Ka'ena Point Ecosystem Restoration Project. This description will focus on the resources currently found in the nominated parcel.

¹ Visit <http://hawaii.gov/dlnr/dofaw/nars/reserves/oahu/Ka`enapoint> and click on "Final Environmental Assessment." Paper copies of this 432-page document are available by request to the Natural Area Reserves System Enhancement Coordinator at the Division of Forestry and Wildlife at (808) 587-4170.

The parcel contains shoreward basalt benches with numerous tidepools and a diverse intertidal flora and fauna, rare coastal sand dune communities. Offshore from this parcel is habitat for reef and pelagic fish, sea turtles, seabirds, and cetaceans.

The parcel contains a beach which is used as a resting area for the endangered Hawaiian monk seal or 'Īlioholoikauāua (*Monachus schauinslandi*), and likely the honu or green sea turtle (*Chelonia mydas*).

The rest of the parcel is predominantly fossilized coral reefs. These emerged reefs are generally formed during interglacial sea level highstands and contain giant mollusks and coral heads and is about 130,000 years old. Soils in the area are primarily characterized as beach and as rock lands. The fossilized coral reef area grades into coastal sand dunes which contain the naupaka (*Scaevola sericea*) community.

Representativeness and Rarity

A unique feature of this parcel is the cove, a relatively protected beach that is an important resting area for rare marine vertebrates. This area also is also potential habitat for the rare plant and animals species found at Ka`ena Point if it was similarly managed as the NAR.

Biological/Ecological Design

This small parcel lies between the Ka`ena Point State Park Reserve and areas approved by the BLNR as the Ka`ena Point NAR. The NARS Commission has indicated that it would be beneficial for Reserves to be adjacent to areas currently managed for conservation so that management activities could be leveraged. Additionally, the cove provides a natural location for controlling off-road vehicular damage from vehicles proceeding west from Mokuleia toward the point, consistent with Hawaii Revised Statutes § 195-12.

Location and Size

The parcel is approximately ¾-acres on the northeastern tip of the Ka`ena Point NAR, identified by TMK 6-9-02:12. It is approximately 2 miles from the end the paved road at the end of the State Highway 930 (Farrington Highway). It is approximately 1,450 feet east of the boulder barricade at Ka`ena Point.

Threats (Human/Biological)

High priority threats to this ecosystem include invasive predatory mammals, invertebrates, plants, and human misuse.

Predators such as rats (*Rattus ssp.*), dogs (*Canis familiaris*), cats (*Felis catus*), mice (*Mus musculus*), and mongoose (*Herpestes javanicus*) not only kill native seabirds, but also harass monk seals. Observations from Hawaii and around the world have shown that rats will eat seabird eggs and chicks, and even attack adult birds. Rodents also consume native seeds and plants. Predators also act as carriers of leptospirosis, morbilli virus (distemper), and toxoplasmosis. The recently published Recovery Plan for the Hawaiian Monk Seal identifies the transfer of these diseases as one of the threats to monk seal survival. Another applicable threat listed in the recovery plan is human disturbance from fishing interactions or on popular beaches.

Invasive invertebrates such as alien ants also threaten coastal arthropods, plants, and seabirds, and have the potential to spread ant-pollinated invasive species (Warshauer, et. al, 2008).

While the area is predominantly unvegetated, invasive plant species threaten the native coastal community at this area, such as Kiawe (*Prosopis padilla*), *Verbesina encelioides*, Australian saltbush (*Atriplex semibaccata*) and Haole Koa (*Leucaena leucocephala*).

Major threats from human misuse include damage to the cultural and biological values of the sand dunes by off-road vehicles. Additionally, this area is threatened by littering, disturbance of protected marine mammals, and igniting fires. Fires ignited by vandals have recently destroyed adjacent areas and rare plant species.

Present Level of Protection and Long-term Ecological Viability

This area is currently within the County Special Management Area and Resource Subzone of the Conservation District. It is also surrounded by the Ka`ena Point Stewardship Area, which was identified by the DLNR to focus a unified management approach to protecting the historical, cultural, and biological integrity of the north coast of Ka`ena Point. Management of the surrounding area benefits the natural resources of the nominated parcel, however it is subject to the threats common to the larger State Park Reserve and NAR areas that are accessible to vehicles. Further degradation of this area is likely without protection, however dramatic recovery is possible as shown by adjacent areas at Ka`ena Point.

Environmental Consequences of No Action/Urgency

Designating this area a NAR would enhance the ability of the Division of Forestry and Wildlife to participate and contribute to conservation and restoration actions across the entire coastline.

As this area has already experienced the local extirpation of native species and contains species that are in danger of extinction, it is projected that no management action would result in additional loss.

Further, the NARS Enhancement Initiative has created the capacity to dedicate areas to the Natural Area Reserves System or other conservation land designations at this time. Recent meetings with the Subcommittee of Enhancement and DOFAW staff have indicated an interest and current input into this process. If a Reserve is an appropriate designation for this area, this momentum should not be lost.

V. MANAGEMENT NEEDS

Threats Requiring Management

Reducing and/or eliminating invasive species and illegal human activities are the highest management priorities for this parcel.

VI. PUBLIC NOTIFICATION

*Agencies, Organizations, and Individuals Contacted**

*If this parcel is acquired and recommended as a Natural Area Reserve by the NARS Commission, interested parties will be notified and a formal public hearing and comment period will occur for this nomination pursuant to Hawaii Revised Statutes § 195-4.

VII. BIBLIOGRAPHY/REFERENCES

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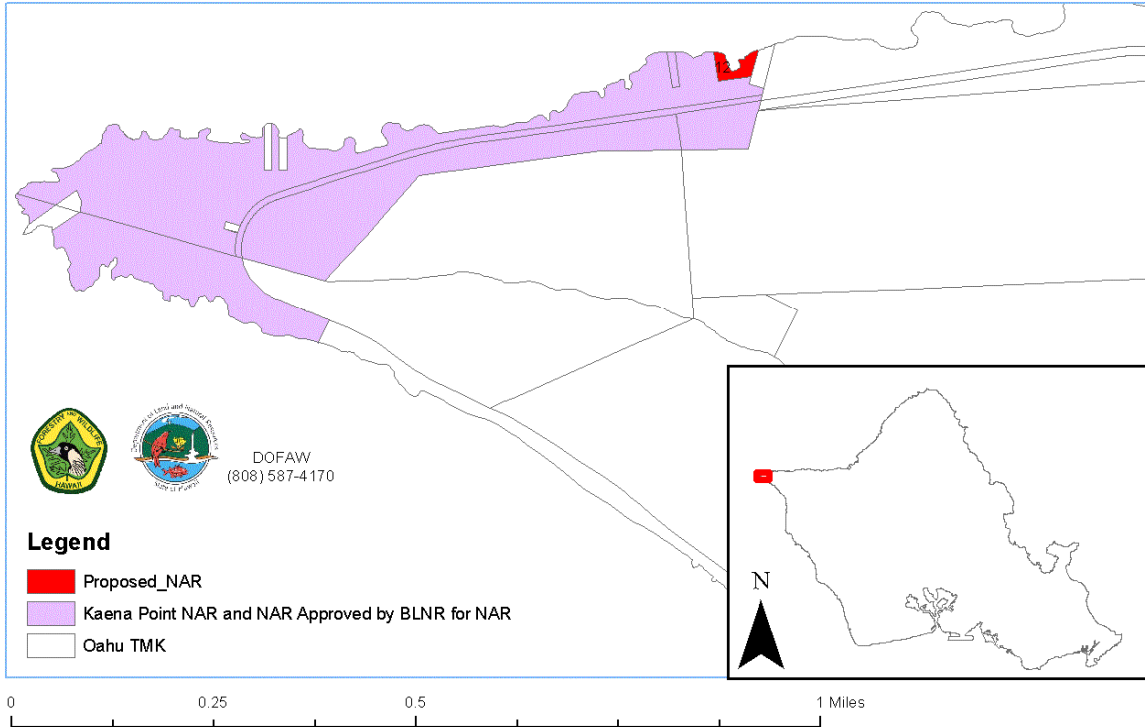
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Experts Consulted:

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 Proposed Extension to Ka`ena Point NAR



Aerial View of Proposed NAR Extension at Ka`ena Point

 Proposed NAR





Cove and beach in proposed NAR Extension, facing north.
Photo: T. Takahama.