

‘ĀINA HAINA AREA DESCRIPTION

The beaches of ‘Āina Haina and Niu are located on the south coast of O‘ahu in Maunalua Bay and are bounded by Wailupe and Niu Peninsulas. Waves are typically small (< 1 ft) along all portions of this shoreline. A shallow fringing reef shelters the shoreline from southern hemisphere swells and trade wind swells, which commonly affect this side of the island. Sea-walls line the shoreline throughout the study area and the beaches are interrupted by several rock groins.

The east end of Niu Beach (transects 63 -69) was lost to erosion between 1971 and 1975 after a brief period of accretion around 1967, which may be related to run-off from the nearby stream (between transects 69 -70). Rates are calculated for shoreline sections where the beach has been lost up to and including the first historical shoreline with no beach. Niu Beach through Kawaiku‘i Beach Park (transects 70 -130) is approximately stable to accreting with the highest rates of accretion around transect 117 (0.7 ft/yr). The beaches at the west end of ‘Āina Haina (transects 130 -150) are eroding. The beach has been lost to erosion at transects 141 -143. The beach at the shoreline to the west of transect 150 was lost to erosion by 1949 due to nearshore dredging; no change rates are calculated here due to insufficient data prior to beach loss.

A study by Hwang (1981) found accretion at Niu Beach and minor erosion at Kawaiku‘i. A follow-up study by Sea Engineering (1998) found net accretion at Niu and Kawaiku‘i beaches.

¹ Hwang, D. (1981) "Beach changes on O‘ahu as revealed by aerial photographs", State of Hawaii, Department of Planning and Economic Development.

² Sea Engineering, Inc. (1988) "O‘ahu shoreline study", City and County of Honolulu, Department of Land Utilization.

Keywords:

O‘ahu; ‘Āina Haina; Maunalua Bay; Wailupe Peninsula; Niu Peninsula; Niu Beach; Kawaikui Beach Park