

MAKALI‘I AREA DESCRIPTION

Makali‘i Point is located on the northeast coast of O‘ahu. The beach is composed of calcareous sand with terrigenous alluvium around Punalu‘u Stream mouth. Shallow fringing reef protects the shoreline from the full energy of northeast tradewind waves and refracted north swells. The beach is lined with seawalls and homes located close to the shore.

Shoreline change rates calculated for Punalu‘u Beach Park (transects 152 - 178) indicate that this beach has experienced long-term accretion averaging 0.1 ft/yr (1928 - 2015). However, inspection of the historical shorelines in this area shows that this portion of shoreline is highly variable and has eroded since the 1970's. Punalu‘u Beach Park through Makali‘i Point (transects 179 - 252) has experienced moderate to high long-term erosion rates (up to -1.2 ft/yr). Chronic erosion along a narrow, seawall-lined beach has resulted in loss of the beach at most transects in this area with the beach likely disappearing along the entire length at high tide.

Previous studies (Hwang, 1981; Sea Engineering, 1988) found little net change to the vegetation line, which was typically stabilized by seawalls, from 1949 - 1988. Hwang's measurements of water line positions showed some accretion north of Makali‘i Point from 1949 - 1975, which has since been lost to erosion.

For more information see: <http://www.soest.hawaii.edu/asp/coasts/oahu/index.asp>

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; Makali‘i Point; Punalu‘u Beach Park