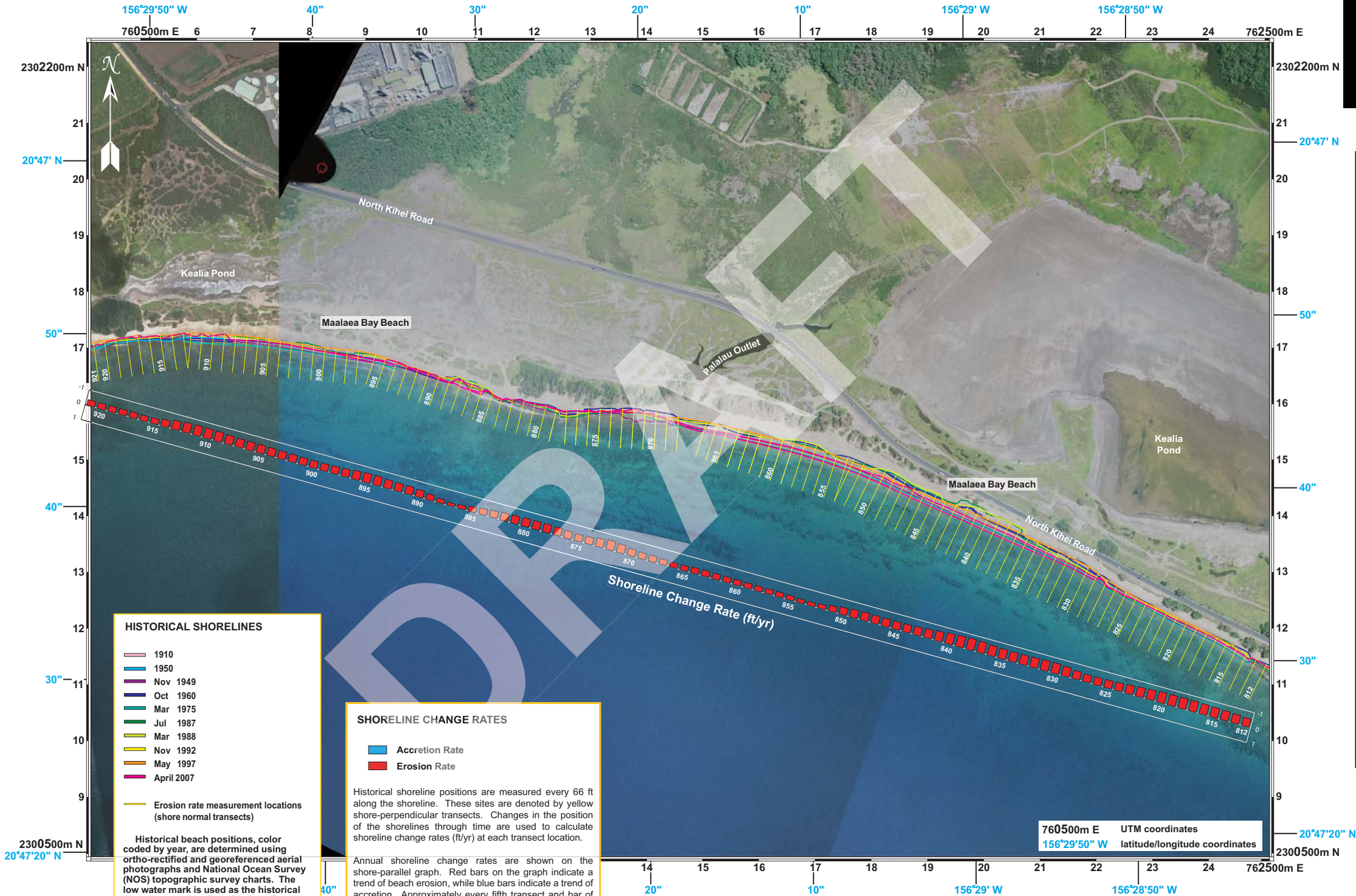
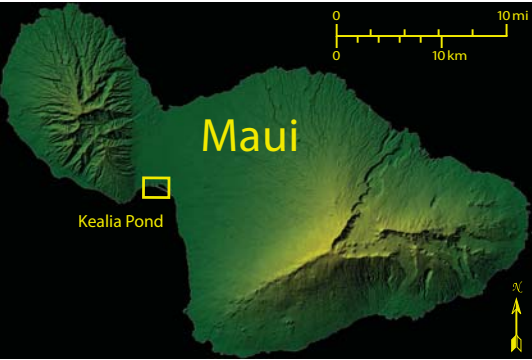


# Kealia Pond, Maui, Hawaii



TRANSECT	ST(ft/yr)	SETBACK(ft)	TRANSECT	ST(ft/yr)	SETBACK(ft)
812	-0.5	51.8	868	-0.4	44.7
813	-0.6	54.4	869	-0.4	45.2
814	-0.6	56.3	870	-0.5	48.0
815	-0.7	57.8	871	-0.6	52.9
816	-0.7	59.0	872	-0.6	56.2
817	-0.7	59.8	873	-0.6	53.2
818	-0.7	60.1	874	-0.5	48.6
819	-0.7	60.1	875	-0.4	47.1
820	-0.7	59.6	876	-0.5	48.7
821	-0.7	58.4	877	-0.5	51.5
822	-0.6	56.5	878	-0.5	52.3
823	-0.6	54.5	879	-0.5	52.1
824	-0.5	52.2	880	-0.5	52.1
825	-0.5	50.6	881	-0.5	51.6
826	-0.5	49.5	882	-0.5	50.2
827	-0.5	49.8	883	-0.5	47.9
828	-0.5	52.2	884	-0.4	45.5
829	-0.6	56.3	885	-0.3	42.0
830	-0.7	58.6	886	-0.2	37.4
831	-0.7	58.3	887	-0.2	35.1
832	-0.6	57.0	888	-0.3	38.6
833	-0.6	56.3	889	-0.4	43.8
834	-0.6	56.2	890	-0.5	48.8
835	-0.6	56.8	891	-0.5	51.4
836	-0.7	58.6	892	-0.5	52.1
837	-0.7	61.4	893	-0.6	53.1
838	-0.8	62.7	894	-0.6	55.8
839	-0.7	61.9	895	-0.6	56.0
840	-0.7	59.9	896	-0.6	53.5
841	-0.6	57.0	897	-0.5	50.5
842	-0.6	53.9	898	-0.5	49.1
843	-0.5	51.9	899	-0.5	48.5
844	-0.5	50.6	900	-0.5	48.2
845	-0.5	50.4	901	-0.5	48.7
846	-0.5	50.2	902	-0.5	49.8
847	-0.5	51.0	903	-0.5	50.7
848	-0.5	51.6	904	-0.5	51.3
849	-0.5	50.9	905	-0.5	52.0
850	-0.5	48.4	906	-0.5	52.3
851	-0.4	43.9	907	-0.6	52.8
852	-0.3	39.4	908	-0.6	54.2
853	-0.2	37.1	909	-0.6	57.1
854	-0.2	37.4	910	-0.7	57.8
855	-0.3	39.4	911	-0.7	58.0
856	-0.3	40.9	912	-0.6	57.0
857	-0.3	41.1	913	-0.6	54.2
858	-0.3	41.1	914	-0.5	47.8
859	-0.3	41.7	915	-0.4	43.3
860	-0.3	42.3	916	-0.3	42.4
861	-0.4	42.7	917	-0.4	43.3
862	-0.4	43.6	918	-0.4	43.3
863	-0.4	44.4	919	-0.4	43.2
864	-0.4	43.9	920	-0.4	43.3
865	-0.3	41.7	921	-0.4	43.6
866	-0.3	41.0			
867	-0.4	42.8			

**HISTORICAL SHORELINES**

- 1910
- 1950
- Nov 1949
- Oct 1960
- Mar 1975
- Jul 1987
- Mar 1988
- Nov 1992
- May 1997
- April 2007

Erosion rate measurement locations (shore normal transects)

Historical beach positions, color coded by year, are determined using ortho-rectified and georeferenced aerial photographs and National Ocean Survey (NOS) topographic survey charts. The low water mark is used as the historical shoreline, or shoreline change reference feature (SCRF).

For situations in which there is coastal armoring or rocky shoreline seaward of any vegetation, the vegetation line is drawn along the seaward side of the rock or armoring. If there is no sandy beach in these areas, both the vegetation line and the SCRF are delineated along the mean high water line.

Movement of the SCRF is used to calculate erosion rates along shore-normal transects spaced every 20 m (66 ft) along the shoreline. The 1987 SCRF is not used in the calculation of the AEHR, however it provides a gauge of seasonal uncertainty.

**SHORELINE CHANGE RATES**

- Accretion Rate
- Erosion Rate

Historical shoreline positions are measured every 66 ft along the shoreline. These sites are denoted by yellow shore-perpendicular transects. Changes in the position of the shorelines through time are used to calculate shoreline change rates (ft/yr) at each transect location.

Annual shoreline change rates are shown on the shore-parallel graph. Red bars on the graph indicate a trend of beach erosion, while blue bars indicate a trend of accretion. Approximately every fifth transect and bar of the graph is numbered. Where necessary, transects have been purposely deleted to maintain consistent along-shore spacing. As a result transect numbering is not consecutive everywhere.

The ST method is used to calculate shoreline change rates for the study area. The rates are smoothed along shore using a 1-3-5-3-1 technique to normalize rate differences on adjacent transects. For more information on erosion rate methods and results see: <http://www.soest.hawaii.edu/asp/coasts/oahu/index.asp>

**AREA DESCRIPTION**

The Kealia Pond study area (transects 812 – 921) encompasses the west half of Maalaea Bay Beach fronting Kealia Pond and North Kihei Road. The area is exposed to south swells in summer months. Easterly tradewinds blow offshore in this area year-round. The Kealia study area has experienced low to moderate erosion rates since 1910, with an average rate of all transects of -0.5 ft/yr.