

Shoreline Change (1953–2015)

Kwigillingok, Alaska

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KWIGILLINGOK
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STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

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Projection: NAD83 UTM Zone 3N. Orthoimagery available from elevation.alaska.gov

Shorelines represent the land-water interface. Shorelines were delineated from historical photographs collected between 1953 and 2015. Using the Digital Shoreline Analysis System (DSAS) developed by the U.S. Geological Survey, the measured distance between shorelines through time determines the linear rate of shoreline change at shore-perpendicular transects. The length of shoreline change envelope at each transect location indicates the distance between the nearest and farthest shorelines between 1953 and 2015. The shoreline change envelope is colored by the shoreline change rate (meters/year and feet/year), with hot colors representing erosion and cool colors representing accretion. Linear rates of shoreline change are simplified and do not accurately reflect shoreline erosion and accretion at all locations.

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