Shoreline Change (1951–2015) Nome, Alaska

REPORT OF INVESTIGATIONS 2020-10 Overbeck and others, 2020 NOME

doi.org/10.14509/30552 165°28'W 64°32'N 165°24'W 4.000 Feet 64°32'N 1,000 Meters **Shoreline Change Rate** meters/year (feet/year) Erosion (-2.3 to -1.0) -0.7 to -0.3 -0.3 to 0.3 (-1.0 to 1.0) Stable 0.3 to 1.0 (1.0 to 3.3) 1.0 to 2.3 (3.3 to 7.5) Accretion Transect length is the shoreline change envelope, which is the distance between the two farthest-apart shorelines at that location. 4 **CEHIII** 165°28'W 64°30'N 165°24'W

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 1951 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 1951 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.

This work is part of the Coastal Infrastructure Erosion Vulnerability Assessment project funded by the Denali Commission Environmentally Threatened Communities Grant Program. Data used to conduct the analysis were paid for by the State of Alaska and the Federal Emergency Management Agency in the 2018 update to the Alaska State Hazard Mitigation Plan.

54°31'N