PLAN HOLD
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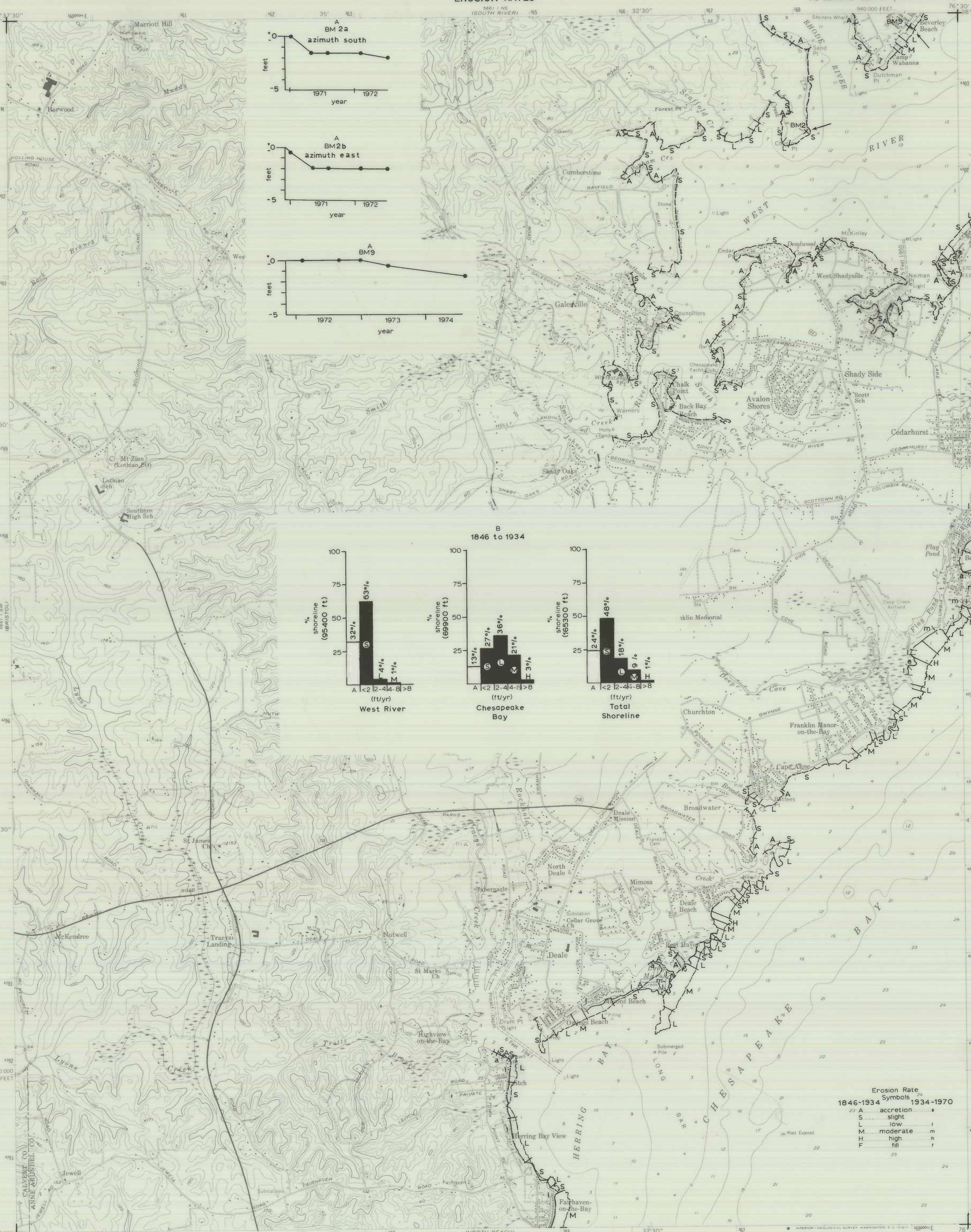
CZM MAP 29 B

HISTORICAL SHORELINES AND EROSION RATES

DEALE QUADRANGLE
MARYLAND
7.5 MINUTE SERIES (TOPOGRAPHIC)

5661 I NW (BOWIE)
5661 I NE (SOUTH RIVER)
5761 IV NW (ANNAPOLIS)
5661 I SW (BRISTOL)



(NORTH BEACH) 5661 II NE
(LOWER MARLBORO) 5661 II NW

Mapped by the Army Map Service
Edited and published by the Geological Survey

Control by USGS, USC&GS, USCE

Culture and drainage in part compiled from aerial photographs taken 1938 and 1942. Topography by planetable surveys 1944. Culture revised by the Geological Survey by photogrammetric methods from aerial photographs taken 1955. Field check 1957

Hydrography compiled from USC&GS chart 550 (1957)

Map prepared by Maryland Geological Survey with funds from National Oceanographic Atmospheric Administration (NOAA) made available through Department of Natural Resources Coastal Zone Management Program
Compiled by Robert D. Conkwright, 1975
Basic data from M.G.S. Bulletin 6

UTM GRID AND 1970 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
7½° 133 MILS
0°59' 17 MILS

SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10 FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 0.9 FOOT

Erosion Rate Graphs

A. Line graphs represent a measured rate of erosion for specific points along the shoreline.

B. Histograms indicate prevalent erosion rate categories for different shoreline areas.

1846 SHORELINE - - - - - - -
1934 SHORELINE —·—·—
BASE MAP SHORELINE 1970

MARYLAND
QUADRANGLE LOCATION

Erosion Rates

Exact erosion rates can be calculated by dividing the distance between shorelines by the difference in their dates. Erosion rate categories can be estimated by using the Erosion Rate Scale in the right-hand margin. Place the left-hand line of the scale against the earliest shoreline and read the name of the erosion rate category.

INTERIOR—GEOLOGICAL SURVEY WASHINGTON D C —1971

DEALE, MD.
N3845—W7630/7.5
1957
PHOTOREVISED 1970
AMS 5661 I SE—SERIES V833