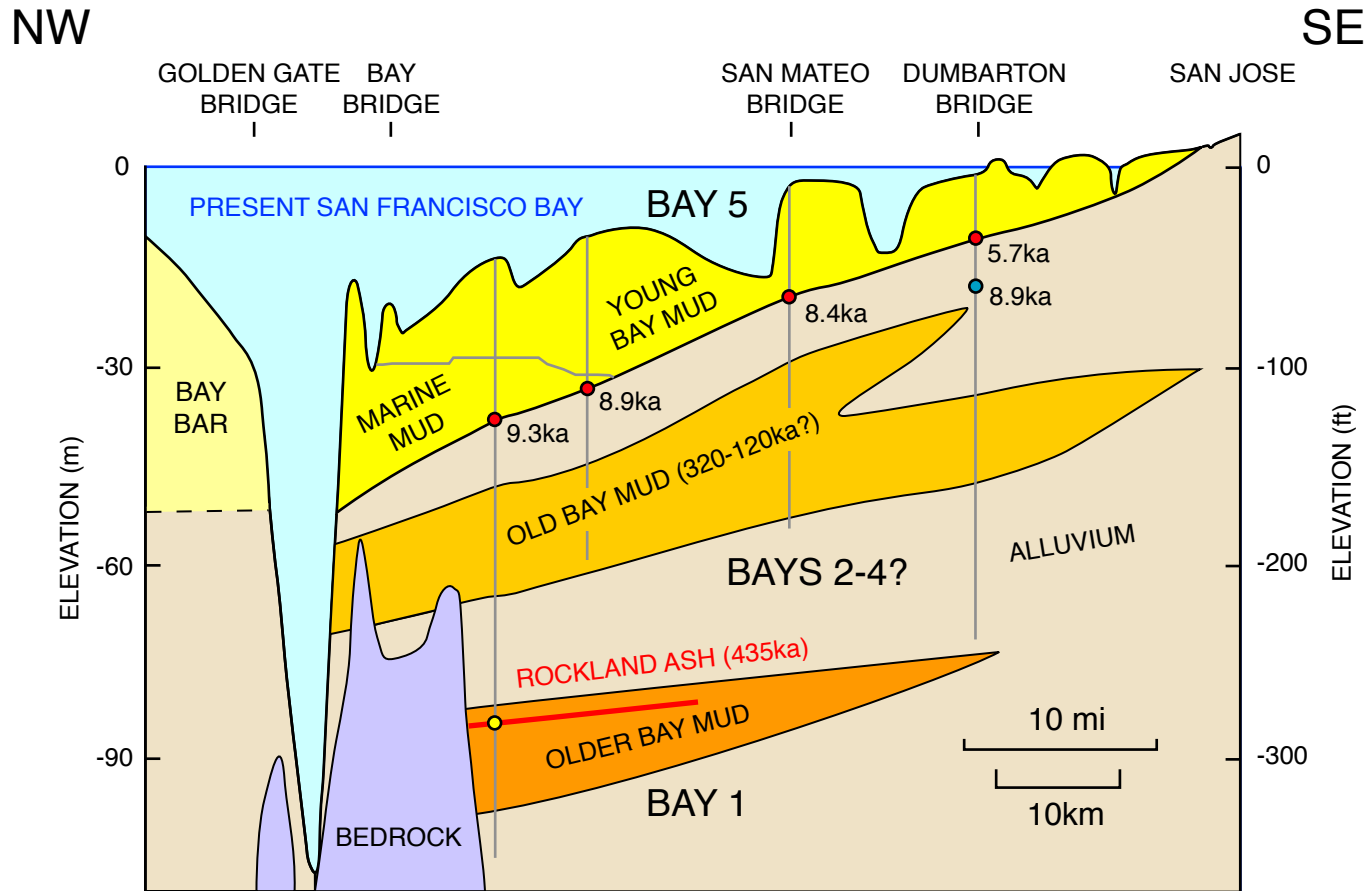


BEDS OF OLD MUD BENEATH THE SOUTH BAY RECORD PREVIOUS BAYS



Deep engineering borings penetrate beds of old bay mud beneath the south bay, indicating there were at least two bays prior to the present bay. Deep water borings at the east end of the Dumbarton Bridge penetrate four old mud layers, indicating there were four previous bays. A deep boring just south of the Bay Bridge penetrated a thin layer of volcanic ash, (Rockland ash) dated at 435,000 years, indicating the oldest bay (BAY 1) correlates with the sea-level highstand dated independently at about 430,000 years. Subsequent beds of bay mud are tentatively correlated with sea-level highstands dated at about 320,000, 210,000 and 120,000 years (BAYS 2-4.). Radiocarbon dates (red dots) at the base of the young mud being deposited in the present bay (BAY 5, yellow) agree with the independently dated rise in sea level at the end of the last Ice Age. The interbedded alluvium was deposited by streams during periodic Ice Ages, when sea level was much lower than it is today, and there was no bay.