This map displays structural contours on top of the Talbert and Bolsa aquifer systems in relation to mean sea level, the interpreted thickness of these aquifers and the areal and 1/10 elevations of effective aquifer volume development in these distributed units. Probable seaward extensions of these aquifer units are not within the area of this investigation and are not interpreted.

The top and thicknesses of these aquifers have been interpreted from lithologic descriptions contained to well logs, primarily water well logs. The Talbert aquifer is the larger of these two sand units in length, width, thickness and areal extent and extends from the mouth of the Bolsa Basin, northeast to the City of Anaheim (Plate 2). To the seaward between Huntington and Newport Beaches (Plate 3). The Bolsa Basin aquifer, east of the +110 elevation structural contour line, the top and bottom of the Talbert aquifer is not readily distinguishable from similar coarse clastic sediments overlying and underlying this unit.

The Bolsa aquifer is the smaller of these two sand units in length, width, thickness and areal extent and extends from the vicinity of the City of Westminster, (Plate 1) southerly to the seaward between Bolsa Chica and Huntington Beaches, (Plate 3). The Bolsa Basin aquifer is in hydraulic continuity with the upper portion of the Talbert aquifer to the vicinity of the City of Westminster.

The Talbert and Bolsa aquifer units are alluvial age sediments and are major segments of total alluvial age sedimentation within the area of this investigation. The areal extent and shape of these coarse clastic units and the velocities of seismic waves passing through these units will be critical factors in estimating the near-surface effects of earthquake induced ground shaking.