

moths, mastodons, ground sloths, bison, horse, and camel are associated with remains of small rodents and insectivores that describe changes in habitat and age of deposit.

### 3.9.9 Seiches and Tsunami

A seiche is an oscillation of a landlocked body of water that can cause water damage to buildings, roads, and infrastructure that surround the body of water. Located in western Riverside County and near to the HCLE Corridor study area are five bodies of water that could result in seiche damage: Diamond Valley Lake, Canyon Lake, Lake Elsinore, Lake Mathews, and Lake Perris. Alternative proximity to these lakes is shown in Figure 3.9.2, General Geology.

A tsunami is a great ocean wave produced by submarine earth movement or volcanic eruption. The HCLE Corridor study area is more than 40 km (25 mi) from the Pacific Ocean. Therefore, the potential for tsunamis is nonexistent.

### 3.9.10 Subsidence

Subsidence refers to the loss of surface elevation due to the loss or gain of subsurface support as associated with soil compaction, changes in groundwater table volumes, and/or earthquakes. Subsidence can occur suddenly or over a long period of time and typically occurs in alluvial valleys. The HCLE Corridor alternative bandwidths are located primarily within alluvial valleys and on or adjacent to granitic hills and mountains.

Figure 3.9.4 of this document illustrates areas at risk for subsidence within and in the vicinity of the project area. Also, Figure S-7 of the new Riverside County General Plan (Planning Center, 2002) illustrates areas with documented subsidence.