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 within the WT Corridor area are two bodies of water that could result in seiche damage: Diamond Valley Lake and Lake Skinner. Diamond Valley Lake is located approximately 762 m (2,500) ft west of existing Route 79 (Alternatives 1, 3, 5a and 5b) and Lake Skinner is located approximately 914 m (3,000 ft) west of Alternatives 5a and 5b.

A tsunami is a great ocean wave produced by submarine earth movement or volcanic activity. The WT Corridor study area is greater than 40 km (25 mi) from the Pacific Ocean. Therefore, the potential for tsunamis is non-existent.

3.9.10 Subsidence

Subsidence refers to the loss of surface elevation due to the removal of subsurface support such as 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 WT Corridor alternative bandwidths are located primarily within alluvial valleys and on or adjacent to some granitic hills and mountains.

Figure 3.9.4 of this document illustrates areas susceptible to 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.