

4.9.2.8 Subsidence

According to the new Riverside County General Plan Safety Element, subsidence occurs predominantly at the base of mountains where alluvial soil formed from rapid runoff accumulation. The southwestern portion of the WT Corridor study area is located in areas with documented subsidence and subsidence susceptible areas, which includes Alternatives H, 5a, and 5b. Subsidence-susceptible areas are located in the northern portion of the study area, where Alternatives 1, 3, 7a, and 7b are located. Also, Figure 4.3 of the Biological Resources Technical Report maps clay soils, which are associated with the increased risk for subsidence, in relation to the WT Corridor alternatives. Overall, very little clay soil is present within the study area, except for some small areas underlying Alternatives 1, 3, 5a, 5b, and 7a. Therefore, structural damage and hazards associated with subsidence are potential effects under all of the build alternatives.

4.9.3 Potential Mitigation Measures to be Considered in Tier 2

- 4.9.3.1 The recommendations of the project engineering geologist shall be implemented as part of the construction level geologic review and investigation for the selected alternative.
- 4.9.3.2 The new Riverside County General Plan policies applicable to geological concerns shall be implemented.
- 4.9.3.2 In the event that excavation activities expose buried and unanticipated paleontological resources on portions of the project, the construction foreman should temporarily halt or divert equipment and call the Lead Agency to contact a qualified paleontologist to evaluate the significance of the resource.

4.9.4 Tier 2 Studies

Following the selection of a preferred alternative in Tier 1, Tier 2 engineering studies will evaluate a variety of alternatives (including modes, facility type, precise alignments, and design features). More detailed Tier 2 environmental studies will evaluate these alternatives more closely and identify potential impacts with more certainty. A geotechnical study will be conducted to identify specific geological concerns for the preferred alternative.