

3.19 PALEONTOLOGICAL RESOURCES

Paleontology is the study of past geological periods as known from fossil remains. This section provides information on the existing geology and paleontology in the I-25 project corridor and the analysis of any impacts to these resources.

3.19.1 Affected Environment

In accordance with the Colorado Historical, Prehistorical, and Archaeological Resources Act of 1973, pedestrian field surveys were conducted in April 2004 along the I-25 corridor. The corridor is within the City of Pueblo urban area, with much of the outcrops covered by construction projects or vegetation; however, exposures of the underlying bedrock do occur, primarily in roadcuts and behind buildings. The bedrock exposures and anthills associated with these outcrops were examined for fossils. In addition, fossil localities and information about paleontological resources in the study corridor were gathered from U.S. Geological Survey publications and the fossil locality databases at the University of Colorado Museum and the Denver Museum of Nature and Science (CH2M HILL, 2004b).

Literature research identified seven surficial deposits overlying three bedrock units in the I-25 corridor. The highway rests on these surficial deposits for most of the length of the study corridor. The deposits are largely covered by vegetation or pavement throughout the area, especially on the terraces south of the Arkansas River. These surficial deposits rest on bedrock that is visible north of the Arkansas River and south of Goat Hill, as well as in artificial cuts south of the Arkansas River (CH2M HILL, 2004b).

No fossils have been documented in the I-25 corridor by the University of Colorado Museum, the Denver Museum of Nature and Science, or U.S. Geological Survey published reports. The only fossils found during the April 2004 field survey were fragments of inoceramid (extinct saltwater clam) shells located in a cut south of Santa Fe Drive between Santa Fe Avenue and Trail Avenue. Publications have documented that fossils are locally abundant in Pueblo, although generally poorly preserved as impressions in the bedrock. No other locally occurring surficial units are known to contain fossils (CH2M HILL, 2004b).

3.19.2 Environmental Consequences

3.19.2.1 No Action Alternative

Because the No Action Alternative includes only minor improvements, repairs, and routine maintenance, it would not create new areas of disturbance in the I-25 area; therefore, no disturbance of subsurface paleontological resources would occur.

3.19.2.2 Build Alternatives

Neither the Existing I-25 Alternative nor the Modified I-25 Alternative would impact any known significant paleontological resources.

3.19.3 Mitigation

If any fossils or other paleontological resources are found anywhere in the project area during construction, construction activities will be halted and the CDOT staff paleontologist will be contacted immediately to assess the significance of the find and make further recommendations.