3.16 UTILITIES

It is important to consider the location of and possible effects on utility lines during any roadway construction. In the early planning stages of a project, CDOT designers coordinate with owners and conduct an inventory of utilities within and adjacent to the project area. Once the list of utilities is known, an evaluation of opportunities for utility improvements and potential utility conflicts is conducted, and an assessment of utility impacts is prepared.

For the New Pueblo Freeway project, utilities (including water, sanitary sewer, storm drainage, telephone, fiber optics, cable television, natural gas, and electrical lines) were found to intersect and parallel the project corridor.

More than 14 entities provide utility services to residential, commercial, and industrial areas along I-25, including the City of Pueblo and other local, regional, and state agencies. This section pertains to utilities that may be affected by the project and is based on information obtained through research and communication with the utility owners and other public and private sources, as detailed in the *Utilities Technical Memorandum, New Pueblo Freeway* (CH2M HILL, 2005h). This analysis did not include field surveys, potholing, or other physical explorations to confirm the location of underground utilities. As a part of future engineering design efforts for this project, field investigations will be conducted to confirm the location, dimension, and characteristics of utilities found within the project area. Impacts to railroad facilities are discussed in **Section 3.1 Transportation**.

3.16.1 Affected Environment

The presence of private or public utilities in highway right-of-way (ROW) means that CDOT would need to coordinate with utility owners if a utility has the potential to conflict with proposed road construction. This coordination would take place during final project design when the exact impacts to utilities are better known.

As many as 113 utility lines are located in the project corridor, including water; sanitary sewer; storm drainage; telephone, fiber optics, and cable television; and natural gas and electric utilities. These lines run above and below ground both parallel to and across the I-25 corridor. The following sections identify the primary utility lines of concern for the New Pueblo Freeway project. Further details on utilities in the project area may be found in the *Utilities Technical Memorandum, New Pueblo Freeway* (CH2M HILL, 2005h).

3.16.1.1 Water

Municipal water is supplied by the City-owned Pueblo Board of Water Works. Water is conveyed by a network of pipelines throughout the project area. Lines intersect I-25 at most major street intersections from 29th Street to Pueblo Boulevard. The larger water lines (with diameters from 20 to 24 inches) are located adjacent to both banks of the Arkansas River and along 27th Street, 8th Street, and 4th Street.

Coolant water is supplied to the Evraz Rocky Mountain Steel Mills through two privately-owned supply systems that convey water from the Stem Beach reservoirs south of Pueblo. Both lines are located parallel to and east of I-25. An older, 48-inch wooden pipeline that is located immediately adjacent to I-25 (across the highway from JJ Raigoza Park and Illinois Avenue) is no longer actively used but has been identified by Evraz Rocky Mountain Steel Mills staff as an emergency backup conveyance system. A 60-inch pipeline located east of the 48-inch wooden pipeline provides the primary source of cooling water for the steel mill.

The Bessemer Ditch is a concrete-lined facility built in the 1890s that delivers irrigation water to farms east of Pueblo. The ditch crosses I-25 just north of Jones Avenue between the Central Avenue and Minnequa Avenue/Indiana Avenue interchanges.

3.16.1.2 Sanitary Sewer Service

Sanitary sewer services are provided by the City of Pueblo Public Works Department. Sewer lines run parallel and cross beneath I-25, including under residential alleys near I-25 in the Bessemer Neighborhood.

3.16.1.3 Storm Drainage

Storm drainage in the corridor is provided by the City of Pueblo Public Works Department. A network of storm sewer lines runs parallel to and across (beneath) I-25 throughout its length. Currently, I-25 does not have a significant

enclosed storm drainage system. A storm drain system with pump stations is located at 29th Avenue, and four detention basins are located west of I-25 between 24th Street and 28th Street.

A 72-inch storm sewer approaches the project corridor on the south side of the Arkansas River just west of the I-25 bridge. On the river's north bank, a 100-inch brick-lined storm sewer dating to the early 1900s runs south on Santa Fe Avenue, turns east along Locust Street south of the Runyon Field Sports Complex, and outfalls east of the Runyon Field Sports Complex and the Fountain Lakes State Wildlife Area.

3.16.1.4 Telephone, Fiber Optics, Cable Television

Telephone service in the project area is provided by Qwest Communications and MCI. Qwest's lines intersect I-25 at six major intersections: copper lines cross at Pueblo Boulevard, Abriendo Avenue, and 25th Street; major copper and fiber optic lines cross at Santa Fe Drive, 4th Street, and 21st Street/US 50B. MCI owns fiber optic lines that parallel the rail tracks and are within railroad ROW. MCI lines cross I-25 south of Arkansas River near Santa Fe Drive and near Grand Avenue.

Touch America maintains a fiber optic line east of I-25 in the railroad ROW. In 2005, CDOT installed fiber optic lines east of I-25 from 1st Street to US 50B. Comcast provides cable television through a line that crosses I-25 at 4th Street.

3.16.1.5 Natural Gas and Electrical Services

Natural gas in Pueblo is provided by Xcel Energy, the company that maintains gas lines in the corridor. The Xcel "south town" transfer station serves more than 30,000 customers in the south part of the City and is located southeast of the Santa Fe Avenue/Santa Fe Drive intersection.

Xcel Energy also owns the Comanche Station, a coal-fired, steam-electric generating station located outside the study area, southeast of the Evraz Rocky Mountain Steel Mills. The Comanche Station provides the Evraz Rocky Mountain Steel Mill's electric utility, and all other electricity generated is transported to the power grid or sold to the Pueblo-area electric distribution company, Black Hills Energy.

Black Hills Energy has 11 overhead crossings of I-25, including a 69-kilovolt line at Maryland Avenue. Black Hills Energy owns the Freemary electrical substation located west of I-25 between Maryland Avenue and Illinois Avenue.

3.16.2 Environmental Consequences

The New Pueblo Freeway project would impact utilities in the project area during highway construction and infrastructure improvements; further impacts would be unlikely following construction. Because utility relocations and coordination with utility owners can be expensive and time consuming, project designers would attempt to develop project alternatives that avoid or minimize impacts.

3.16.2.1 No Action Alternative

The No Action Alternative would include minor improvements, repair, and routine maintenance to I-25; therefore, there would be no impacts to utilities. Standard upgrades and maintenance to utility lines would continue to be performed by utility owners.

3.16.2.2 Build Alternatives

The Build Alternatives would impact a number of utilities in the project area. The utility infrastructure network includes numerous above- and below-ground lines that intersect and parallel the highway. Utility lines are concentrated at Pueblo Boulevard, Northern Avenue, Mesa Avenue, the north and south banks of the Arkansas River, 4th Street, 8th Street, and 29th Street – all of which would be impacted by reconstructing I-25 under either Build Alternative. The Build Alternatives provide the opportunity to improve storm drainage from I-25 by constructing an enclosed trunk line that allows treatment of stormwater before it is discharged. This beneficial impact is discussed in more detail in **Section 3.15 Water Quality**.

North Area

For both Build Alternatives, the above- and below-ground utility lines concentrated at 4th Street, 8th Street, and 29th Street would be impacted by reconstructing I-25.

South Area

Both Build Alternatives would encroach on the alternate 48-inch line conveying coolant water to the Evraz Rocky Mountain Steel Mills between JJ Raigoza Park and Illinois Avenue. This line acts as the alternative coolant water source for the Evraz Rocky Mountain Steel Mills. The primary line would not be impacted by either Build Alternative.

Central Area

Existing I-25 Alternative

The Existing I-25 Alternative would affect storm drainage and natural gas utilities. Specifically, this alternative would:

- Approach the 72-inch storm sewer line that outfalls on the south bank of the Arkansas River west of the I-25 bridge and cross over the 100-inch storm sewer line located under Santa Fe Avenue and Locust Street.
- Require relocation of Xcel Energy's south town natural gas transfer station at the southeast corner of the Santa Fe Drive/Santa Fe Avenue intersection.

Irrigation utilities also would be impacted by the Existing I-25 Alternative. Widening of I-25 would slightly encroach on the Bessemer Ditch, requiring widening of the existing box culvert. The existing ditch crossing would be designated as an on-street bike path.

Modified I-25 Alternative

The Modified I-25 Alternative would affect the storm drainage and natural gas utilities in the same way as the Existing I-25 Alternative. The Modified I-25 Alternative would require a new crossing for I-25 over the Bessemer Ditch. The existing I-25 roadway and crossing would remain in place and become Santa Fe Avenue.

3.16.3 Mitigation

Unless otherwise specified, the following mitigations apply to both the Existing I-25 Alternative and the Modified I-25 Alternative.

- During future design efforts, the location of all utilities in the I-25 corridor will be confirmed by field investigations, including locating lines below ground. If public or private utilities are expected to be affected by the project, alternate delivery systems will be provided to ensure uninterrupted service, and lines or stations will be relocated as needed. When appropriate, CDOT will look for opportunities to provide space for new utilities or upgrade existing ones.
- CDOT will negotiate an agreement (through purchase of either a temporary or permanent easement) with the Bessemer Ditch Company for the new roadway structure over the irrigation ditch under the Modified I-25 Alternative or for the widening of the existing box culvert that encroaches on the ditch in the Existing I-25 Alternative.
- The 100-inch brick-lined storm sewer located on the Arkansas River's north bank is a potential historic resource. If, during future design efforts, impacts to this line are identified, CDOT will engage in National Historic Preservation Act Section 106 consultation with the State Historic Preservation Officer and consulting parties regarding this resource.