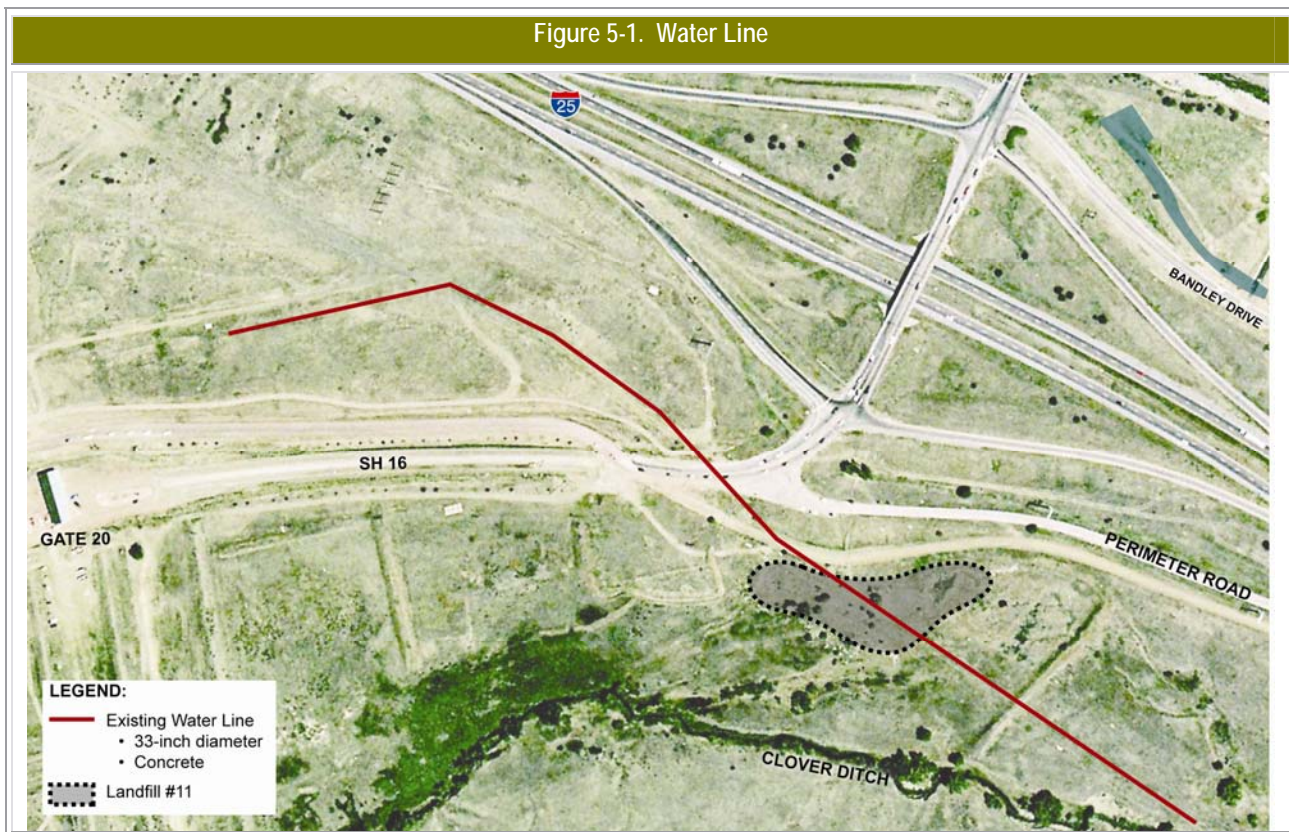


CHAPTER 5.0 ISSUES RELATING TO BUREAU OF RECLAMATION

This separate subsection of the SH 16 EA summarizes the effects of the Proposed Action on the 33-inch water line owned by the Bureau of Reclamation and serving customers of the Fountain Valley Authority. The water line lies on the west side of I-25 in an easement on Fort Carson (see **Figure 5-1**). The water line is part of the Fountain Valley Conduit, one of many Bureau of Reclamation facilities constructed as part of the Fryingpan-Arkansas project.



The construction and operation of this multipurpose water project was authorized by Congress on August 16, 1962. In 1965 the Southeastern Colorado Water Conservancy District was formed and entered into a contract with the United States, through the Bureau of Reclamation, to repay a share of the reimbursable cost involved in construction of the project. The Fountain Valley Authority, established as a separate entity under the Southeastern Colorado Water Conservancy District, is responsible for

supplying water to their customers (the communities of Fountain, Security, Widefield, Colorado Springs, and Stratmoor Hills).

The Fountain Valley Conduit begins at Pueblo Dam and ends near Academy Boulevard about 3.5 miles north of SH 16. The conduit conveys approximately 20,100 acre-feet (or about 6.5 billion gallons) of project water annually to the communities it serves. The Fountain Valley Conduit is 45 miles long and ranges from a 42- to 14-inch-diameter pipe.

IMPACTS OF THE NO-ACTION ALTERNATIVE

If no action is taken, there will be no effect to the 33-inch water line. The water line would remain in its existing location within an easement on Fort Carson.

IMPACTS OF THE PROPOSED ACTION

The Proposed Action will require the relocation of approximately 1,450 linear feet of the existing 33-inch water line. The reconstruction of the SH 16/I-25 interchange would place a portion of SH 16 and the interchange loop ramp over about 1,050 feet of the water line. The embankment material required for the interchange and loop ramp would place as much as 15 feet of fill over the water line. Because it would be buried so deep and the ramp would be over it, maintenance and repair of the water line would be difficult if it were left in place, and some repairs to the water line could require the closure of the interchange ramp. Therefore, the Fountain Valley Authority requested that the water line be relocated outside of the interchange area. The location that was selected was farther to the west between the outside edge of the interchange fill slope and the relocated perimeter road on Fort Carson. The total relocated section of the water line would be approximately 1,900 linear feet (see **Figure 5-2**).

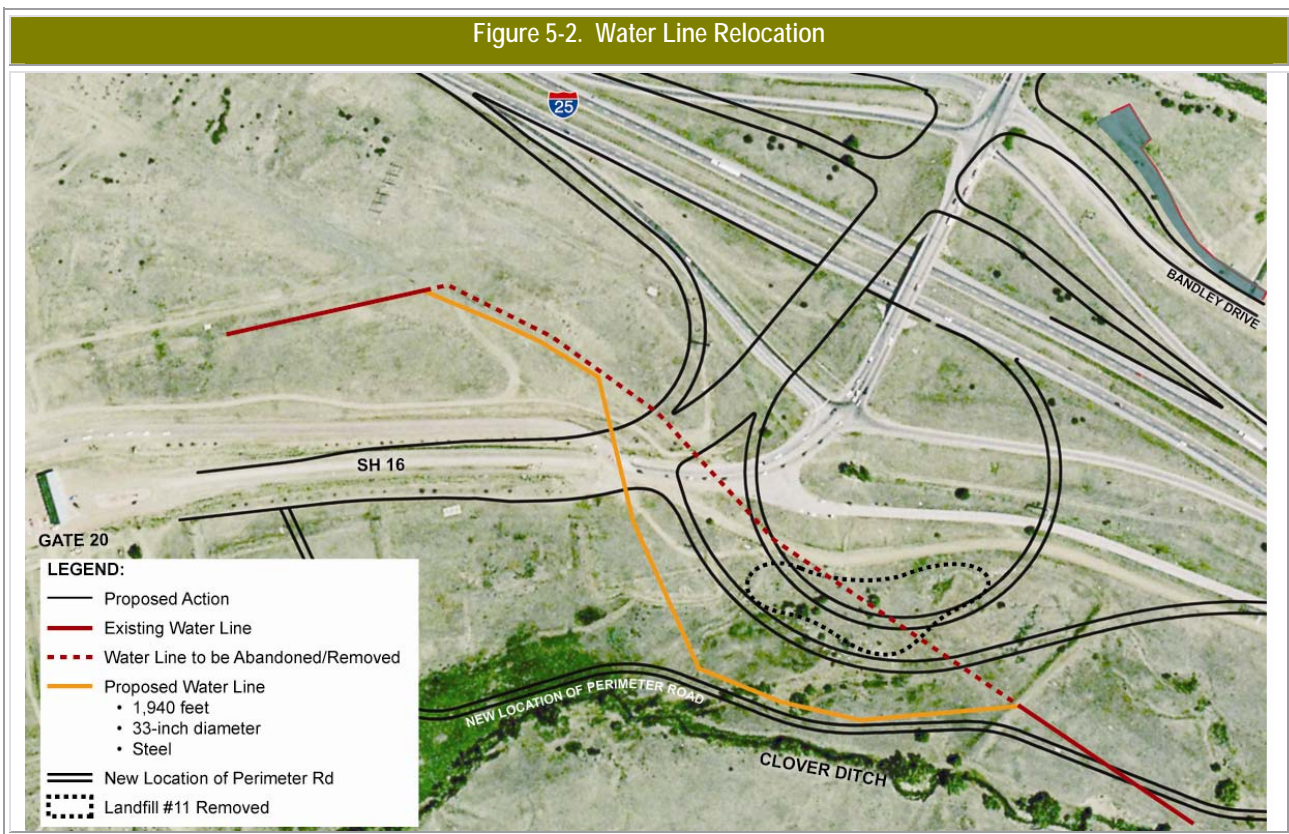
The entire interchange footprint area, including the area outside of it where the water line would be relocated, was investigated by qualified experts for a variety of social, economic, and environmental resources and issues. These included but were not limited to, cultural resources, threatened and endangered species, wetlands, paleontological resources, and hazardous waste.

The land in this area is used by Fort Carson as a buffer, a location for other utilities, and for a perimeter road. It is not used for training by Fort Carson and does not contain buildings or other Army facilities. No archaeological or historic sites were found in this area. No threatened or endangered species are present in the area, and none would be directly or indirectly affected by the Proposed Action. No wetlands or paleontological resources were identified within the study area. The relocation of the water line would

disturb sparse upland grasses and shrubs. No additional trees would be removed to accommodate the relocated water line.

The existing 33-inch water line is partially located within Landfill #11 on Fort Carson. According to information provided by the Army, this landfill contains debris from past building demolition projects. Limited testing conducted by CDOT determined that materials containing friable and non-friable asbestos are present in Landfill #11. CDOT will entirely remove all solid wastes, including the asbestos-containing materials.

Figure 5-2. Water Line Relocation



MITIGATION MEASURES

To minimize disruption of service, the relocated portion of the water line would be constructed prior to work that would require the demolition of the existing water line. The relocated line will be a 33-inch welded steel pipe.

CDOT will prepare the legal descriptions for the new easement where the water line will be relocated, and Fort Carson has agreed to the relocation of the water line on their

property. CDOT will pay for the design and construction costs associated with the relocation of the water line. The design of the water line and legal descriptions for the easement will be approved by the Bureau of Reclamation and Fountain Valley Authority.

Portions of the existing 33-inch water line would be removed as part of the removal of materials from Landfill #11. Other portions of the water line could be abandoned in place if mutually agreed upon. After the water line is relocated, the disturbed area will be reseeded with appropriate upland native grass and brush species.

Table 5-1 summarizes the impact and mitigation related to the relocation of the 33-inch water line and the role in mitigation by the Bureau of Reclamation (BOR) and the Fountain Valley Authority (FVA).

Table 5-1
Impacts and Mitigation Related to the Water Line Relocation

Impact	Issue	Mitigation by CDOT	BOR/FVA Role in Mitigation
The proposed interchange will require the relocation of the existing 33-inch water line.	Legal descriptions for an easement for the relocated water line are required.	CDOT will describe and define the easement.	BOR/FVA will approve the relocation alignment and easement description.
	Relocation of the water line will require design for the horizontal and vertical alignment.	CDOT will pay for the design.	BOR/FVA will review and approve the design.
	Relocated water line must meet current standards and specifications.		BOR/FVA will assure that the design meets current design standards.
	Disruption of service must be kept to a minimum.	CDOT will require phasing of the relocation to minimize disruption to service.	BOR/FVA will approve the phasing plan.
	Cost to relocate the water line.	CDOT will pay for the relocation of the water line.	
	The existing water line traverses Landfill #11.	CDOT will excavate, remove and dispose of all landfill materials and that portion of the 33-inch water line within it in accordance with the requirements of the Colorado Department of Public Health and Environment.	
	Portions of existing water line would be abandon.	CDOT will remove a portion of the existing water line and other portions will be abandoned in place.	BOR/FVA will approve of abandonment methods.

continued

Table 5-1 (cont'd.)
Impacts and Mitigation Related to the Water Line Relocation

Impact	Issue	Mitigation by CDOT	BOR/FVA Role in Mitigation
	Construction of the water line will disturb soils and vegetation.	CDOT will require the use of appropriate temporary and permanent BMPs to minimize soil erosion and will revegetate disturbed areas with appropriate upland species.	