

3.0 Affected Environment

3.1. Introduction

The relevant resources described in this chapter are those that would have the potential to be affected by the proposed Project. The effects (impacts or issues) to these resources created by the alternatives if implemented are discussed in Chapter 4.

3.2. Description of Relevant Resources (see issues from 1.6 of Chapter 1)

3.2.1. Wildlife

Approximately 20 mammal and 216 bird species occur on or near the proposed Project site. No federal Threatened and Endangered species or their habitat exists on or near the Project.

The Pecos River Muskrat which is on the Texas Parks and Wildlife (TPW) species of concerned list has been sighted 3 to 4 miles southeast of the Project site in irrigation ditches. In addition, the Pecos River Muskrat is also known to live in canal systems and around hydraulic structures (Prevention and Control of Animal Damage to Hydraulic Structures, Hegdal and Harbour USDA, BOR, US Government Printing Office, April 1991. page 51.). Muskrats are found in wet environments, favoring locations with four to six feet of water. While muskrats are found in ponds, lakes, and swamps, their favorite locations are marshes, where the water level stays constant. Marshes provide the best vegetation for muskrats. The nests of the muskrats are formed by piles of vegetation placed on top of a good base, for example a tree stump, generally in 15 to 40 inches of water (Newell, T. 2000).

3.2.2. Cultural Resources (Issue #2 Historic Features of the Riverside Canal)

The proposed Project takes place entirely within the District, which is included on the NRHP. Three hydraulic structures in excess of 50 years of age would be replaced in the Project. These structures include the Franklin, Partidor, and Wasteway One Check structures. In addition, the width of the Canal in the Project will be modified. Pages 13 and 14 show pictures of the existing structures on the NRHP.

In addition to the Canal, the Pueblo has designated the Park as a Traditional Cultural Resource. The resources are traditional plants (see page 16) that are necessary for the Pueblo to carry on their cultural events.

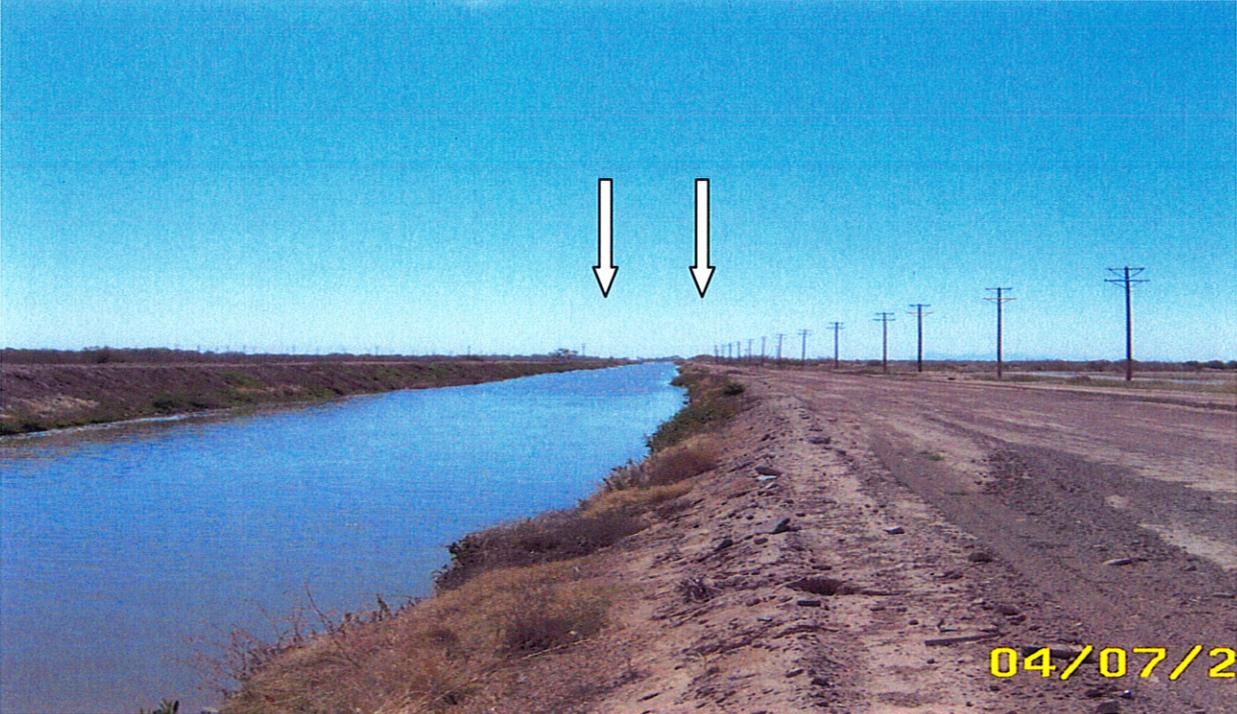
View of the upstream side of Franklin Check Structure (on the left) and the Partidor Check Structure (on the right).



View of the existing Wasteway One and Check Structure on the left.



Typical view of the width of the Riverside Canal as it currently exists



3.2.3. Water Resources

The groundwater level of the area under the Park is controlled by the elevation of the bottom of the Rio Grande, the Riverside Intercepting Drainage Canal, and the River Intercepting Drainage Canal. Currently, the groundwater level is greater than the bottom elevation of the drainage canals, and therefore the groundwater level is not controlled by the amount of seepage from the Canal. As long as these drains have flow, the elevation of the bottom of the drains controls the groundwater level in the park area. Furthermore, when excess water is available, the District has voluntarily made treated effluent water available to UTEP for application on the lands of the Park. Typically, approximately 45 cfs of water is provided to the Park from October to February of each year. This equals a volume greater than 10,000 acre-feet per year which exceeds by several times the amount of water that recharges the alluvium aquifer (under the Park) as a result of seepage from the portion of the Canal adjacent to the Park.

3.2.4. Wetlands

A shallow water emergent wetland (30 acres) located on the west side of the Park adjacent to the Canal was created as a mitigation measure to replace acreage lost as a result of the Rio Grande American Canal Extension Project. Federal agencies involved with this project are the Service and the IBWC.

The emergent wetland and the Park was planted with riparian vegetation that is being enhanced by water donated by the District during the non-irrigation season from a wastewater treatment plant nearby. The Project has been identified as a source of water (contingent upon water rights) to enhance the establishment of the emergent wetland. In addition, the District has made provisions for the Friends and the UTEP to acquire water rights so that they may apply for a turn out for additional water during the irrigation season.

3.2.5. Vegetation

The following is a table provided by the Pueblo listing traditional plants that are located in or near the proposed Project:

Common Name	Scientific Name (Genus)	Existing in the Riverside Canal
Cottonwood	Populus	No
Grass	Poaceae	Yes
Jaras	Salix	Yes
Jaria	Asteraceae	Yes
Jimson Weed	Datura	No
La lengua de vaca	Rumex/Rheum	No
Quelites	Chenopodium	No
Quelites	Amaranthus	No
Sunflower	Helianthus	No
Te de abuela	Polygonum	No
Tornillo	Prosopis	No
Toritos	Tribulus	No
Trompillo	Solanum	No
Varas	Salix	Yes

Plant species listed in the previous table represents vegetation in and along the Canal, the Park, and the Rio Grande. In addition, vegetation in and along the Canal is regularly mowed by the District as part of normal Canal O&M to allow carriage of water.

3.2.6. Environmental Justice

Federal agencies are required to identify and address disproportionately high and adverse human health or environmental effects of its activities on minority and low-income populations. The proposed Project site was selected based on the need to reduce seepage and evaporation from the Canal.

3.2.7. Indian Trust Assets

Indian trust assets (ITAs) are legal interests in property held in trust by the U.S. for Indian tribes or individuals. For example, ITAs include land, minerals, hunting and fishing rights, and water rights.



3.2.8. Air Quality and Noise

3.2.8.1. Air Quality

EPA Region 6 describes areas along the U.S.-Mexican border that do not meet National Ambient Air Quality Standards (NAAQS). El Paso County is designated as non-attainment for PM-10 (dust). The project area is in an area that fails to meet or attain NAAQS for particulate matter or PM-10. High particulate levels have been attributed to the many unpaved streets and roads in the lower valley (Parkhill, Smith & Cooper, Inc. and CH2M Hill 1997).

3.2.8.2. Noise

Typical noise levels in the Project area may normally range from 25 to 60 dBA (A-weighted decibels) and is caused by existing nearby industrial facilities.

4.0 Environmental Consequences

4.1. Introduction

This chapter discusses the scientific and analytical basis for the summary comparison of effects in section 2.4 of Chapter 2. Included in the chapter are predicted effects of each alternative on selected environmental resources.

4.2. Predicted Effects on Each Relevant Issue and Resources

4.2.1. Wildlife

No Action A

Lining the Canal with concrete, replacement of leaky gates and check structures would not occur. As a result, wildlife such as the Pecos River Muskrat would not be affected.

Proposed Action B

The Service has stated in a letter (see attached Appendix A) that habitat for federally listed threatened and endangered wildlife species is not known to exist on or near the proposed Project.

The Pecos River Muskrat known to exist in canals similar to the Canal was listed by the TPW as a as a species of concern; but not a threatened and endangered species by the Service. A presence or absence survey was conducted by the TPW within the proposed Project area and the adjacent Park. The survey identified muskrat fecal matter in the Canal and the Park, however, the fecal matter was not specifically identified with the Pecos River Muskrat.