

Chapter 3. Affected Issues and Environmental Resources

3.1 Introduction

A review of the two alternatives resulted in the identification of nine issues and environmental resources that either must be reviewed by law or could be affected by the proposed project or by taking no action. The nine issues and environmental resources identified correspond to those identified in Chapter 1, Section 1.5. This chapter describes the existing conditions for each issue and environmental resource.

3.2 Description of Relevant Affected Issues and Resources

3.2.1 Federal- and State-Listed Species

Three Federally protected species were identified that could potentially occur in the project area, the bald eagle, the southwestern willow flycatcher, and the Rio Grande silvery minnow. No known or potentially present State-listed protected species were identified in consultation with the NMDG&F (2005), and the NMRPTC (1999). Lists of rare plant and wildlife species known to occur in Sandoval County are contained in Appendix B.

Although transient bald eagles are known to use the Rio Grande corridor during the winter, no nests have been located in the project area. Wintering bald eagles are present within the Middle Rio Grande Valley and have been observed flying and perching in the project area. During southwestern willow flycatcher surveys conducted from 1994 to 1996, 17 territories were found along the middle Rio Grande. More recently (2004), 12 to 16 breeding pairs were located on the San Juan Pueblo, about 70 miles north of the project area, and 8 to 12 pairs were found on the Isleta Pueblo, about 30 miles south of the project area (A. Coykendall, 2004 pers. comm.). The Pueblo of Sandia, following Service protocols, has been surveying the project area for southwestern willow flycatcher since 2002. No birds have been found in the project area, and the habitat in the project area is not suitable for nesting. The project area is located within the Angostura Reach of the Rio Grande, and Rio Grande silvery minnow have been found in the river at monitoring sites just upstream (i.e., U.S. Highway 550 bridge) and downstream (i.e., Rio Rancho wastewater treatment facility) of the project area. There are no known occurrences of any other Federal- or State-listed protected species of plants or animals in the project area.

3.2.2 Vegetation and Wildlife

Vegetation at the project area is dominated by non-native species including saltcedar (*Tamarix* spp.), Russian olive (*Elaeagnus angustifolia*), Siberian elm (*Ulmus pumila*), and other ground-layer weedy species on the New Mexico State Noxious Weeds List (Appendix B). Native vegetation found in the project area includes Rio Grande cottonwood and coyote willow. According to the Wetlands/Riparian Database that exists for this portion of the Rio Grande (New Mexico Heritage Program 2000), the project area consists of highly disturbed vegetation communities that are frequently flooded, but not altogether scoured, and typically dominated by the Coyote Willow / Threesquare Bulrush Alliance (Muldavin et al. 2000). Other existing or potential vegetation alliances that are found within the project area include the Cottonwood / Coyote Willow Alliance, the Cottonwood-Gooding Willow Alliance, the Cottonwood / New Mexico Olive Alliance, and the Cottonwood-Russian Olive / Saltcedar Alliance.

Mammal species common to the area include: coyote (*Canis latrans*), raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), skunk (*Mephitis mephitis*), beaver (*Castor canadensis*), and various species of mice, rats, bats, rabbits, and other small mammals. Birds that can be found in the region at different times of the year include: herons, ducks, turkey vultures, hawks, doves, hummingbirds, crows, and numerous other species. A more complete list of animal species known to occur in the general area, obtained from the NMDG&F BISON-M database along with their scientific names, is located in Appendix B.

3.2.3 Noxious Weeds

Populations of State-listed noxious weeds have been observed in the project area during site visits. Most of the species observed are considered Class B and Class C noxious weeds, according to the current State list of noxious weeds as shown in Appendix B. Some control efforts were recently implemented at the project area following a fire in 2003. Saltcedar, Russian olive, and Siberian elm were the species targeted during the control efforts.

3.2.4 Erosion Control and Water Quality

Turbidity, from erosion in the reach of the Rio Grande that flows through the project area, is greatest during periods of high runoff. High-flow events from rainstorms or rapid snow melts in the mountains cause scouring of the banks and bottom of the Rio Grande as well as the streams and arroyos that empty into the river. This scouring results in high sediment loading and gradual erosion of the river's banks. Over time this erosion leads to a natural tendency of the river to meander back and forth from side to side. Surface runoff adds to sediment loading and turbidity in the river.

Any activities that reduce or eliminate vegetation have the potential to result in erosion until vegetation is re-established. The project area is surrounded by a region of farming, ranching, and, more recently, residential development. Farming activities (e.g., plowing and tilling), ranching activities (e.g., livestock grazing), and clearing activities for development often eliminate or reduce vegetation, even if only temporarily, and thus become a potential cause of sediment loading in the river during periods of high runoff.

3.2.5 Air Quality

The Clean Air Act of 1970, as amended, established National Ambient Air Quality Standards (NAAQS) (40 CFR 1 § 81.332) to protect the public from exposure to dangerous levels of several air pollutants. Southern Sandoval County is in Air Quality Control Region (AQCR) 152 – Albuquerque – Mid Rio Grande. The AQCR 152 has been classified as an attainment area for all air pollutants identified in the NAAQS (eCFR 2005). Because of this classification for Southern Sandoval County, the proposed project is not subject to EPA requirements for ambient monitoring. The project area is occasionally used by people driving utility vehicles along the east levee, which results in the generation of a small amount of exhaust and fugitive dust during dry conditions.

3.2.6 Cultural and Archaeological Resources, and Sacred Sites

Section 106 consultation with the New Mexico SHPO will be handled under the terms of a Programmatic Agreement, which sets out guidelines for the consultation process regarding

Middle Rio Grande river maintenance projects. Native American tribes were consulted for the Programmatic Agreement. A copy of this Programmatic Agreement is contained in Appendix A.

3.2.7 Indian Trust Assets (ITAs)

Indian Trust Assets or resources are defined as legal interests in assets held in trust by the U.S. Government for Native American Indian tribes or individual tribal members. Examples of ITAs are lands, minerals, water rights, other natural resources, money, or claims. An ITA cannot be sold, leased, or otherwise alienated without approval of the Federal government. The project area is located primarily on Native American Indian Trust lands as part of the Pueblo of Sandia.

3.2.8 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that the effects on minority and low-income populations within a project area be given special consideration to determine if the proposed action would result in disproportionate adverse effects to their communities. According to the most recent data from the U.S. Bureau of Economic Accounts (2005), the annual per capita income for the State of New Mexico in 2003 was \$24,995. The 2003 annual per capita income for Sandoval County was \$25,523. According to the most recent data from the U.S. Census Bureau (2005), 29.4 percent of the residents of Sandoval County were Hispanic or Latino in 2000 and 16.3 percent of the residents of Sandoval County were of American Indian or Alaskan Native descent in 2000.

3.2.9 Visual Resources

Visual quality along this segment of the Rio Grande varies somewhat, depending on the specific site in question and the viewer. For the most part, the river corridor is well vegetated with riparian species, although much of the vegetation is non-native and considered invasive. Many human-made features along the river are visually prominent including housing, roads, bridges, canal systems, levees, and communication towers. At a more site-specific level, riprap, jetty jacks, and levees are the most prominent human-made features at the project area.