2. Action Area

The project area is the immediate area involved in the proposed action, while the action area is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 CFR 402.02). The project area is within the geographic area where Reclamation has legal authorization to perform programmatic actions associated with the MRG Project (see section 5). The river mile (RM) designations used in this document, as with the Part I, water management BA component, are those developed from the 2002 controlled aerial photography within the boundaries of the MRG Project.

2.1 River Maintenance Action Area

Located in the Rio Grande Rift, the Rio Grande flows downstream through a series of valleys separated by canyons—for example, White Rock Canyon and local constrictions (e.g., Sevilleta bend or the location of Isleta Diversion Dam) (Reclamation 1977; Lagasse1980). The project and action area for river maintenance activities, under this consultation, is defined as the Rio Grande from Velarde, New Mexico, downstream to the Full Pool Elephant Butte Reservoir Level. The lateral extent of the project area generally is defined by the levees located to the east and west of the mainstem of the river. Under certain (likely limited) circumstances, the levee may be relocated to provide more area for river migration. In situations where levees on one or both sides are missing, the lateral extents are confined by the historical flood plain (geological constraints, such as terraces and rock outcroppings). Between RM 72 and RM 69, the LFCC separates from the Rio Grande, with the Rio Grande being bounded on the west by the Tiffany Levee. The area between the Tiffany Levee, up to and including the LFCC further to the west, is also a potential work area for river maintenance (an average distance of approximately [~] 7,000 ft).

For this BA, the following 10 reaches and associated river mile and landmark designations will be used as graphically shown in figure 1 and as described in table 1.

These 10 reaches have distinct geomorphic differences and characteristic attributes. These are described in more detail in the Middle Rio Grande River Maintenance Plan, Part 1 Report (Reclamation 2007). The White Rock Canyon and Cochiti Lake Reach is not discussed in this report since Reclamation has no authorized river maintenance and there are no future Reclamation planned activities in this reach. Reclamation does conduct river maintenance work from the Elephant Butte (EB) Full Pool Reservoir Level to the current EB Reservoir



Figure 1. Geomorphic reach designation.

Table 1. Geomorphic Reaches

Geomorphic Reach Name	Description
Velarde to Rio Chama	Velarde, New Mexico (RM 285) to Rio Chama Confluence (RM 272)
Rio Chama to Otowi Bridge	Rio Chama Confluence (RM 272) to NM 502 - Otowi Bridge (RM 257.6)
Cochiti Dam to Angostura Diversion Dam	Cochiti Dam (RM 232.6) to Angostura Diversion Dam (RM 209.7)
Angostura Diversion Dam to Isleta Diversion Dam	Angostura Diversion Dam (RM 209.7) to Isleta Diversion Dam (RM 169.3)
Isleta Diversion Dam to Rio Puerco	Isleta Diversion Dam (RM 169.3) to Rio Puerco Confluence (RM 127)
Rio Puerco to San Acacia Diversion Dam	Rio Puerco Confluence (RM 127) to San Acacia Diversion Dam (RM 116.2)
San Acacia Diversion Dam to Arroyo de las Cañas	San Acacia Diversion Dam (RM 116.2) to Arroyo de las Cañas (RM 95)
Arroyo de las Cañas to San Antonio Bridge	Arroyo de las Cañas (RM 95) to San Antonio – U.S. 380 Bridge (RM 87.1)
San Antonio Bridge to River Mile 78	San Antonio – U.S. 380 Bridge (RM 87.1) to RM 78
River Mile 78 to Full Pool Elephant Butte Reservoir	RM 78 to the Elephant Butte Full Pool Reservoir Level

Level. Reclamation will consult separately on this work. Reclamation also conducts river maintenance work between the EB Dam and the I-25 Bridge south of Caballo Dam. This work is outside the current action area for MRG BA. The work in this reach has a negligible impact on endangered species since the minnow is extirpated from the reach and critical habitat for the willow flycatcher does not exist within the defined river maintenance work area for this reach (river maintenance does not conduct work within the current pool of Caballo Reservoir).

2.2 Other Reclamation MRG Activities Action Area

The project and action areas for other Reclamation MRG activities include the footprint (drain, O&M roads, spoil levees, and immediately adjacent property along the drain corridor) of the MRG Project drains (Drain Unit 7, Drain Unit 7 Extension, La Joya Drain, San Francisco Drain, San Juan Drain, Elmendorf Drain, and the Escondida Drain) and the LFCC. The LFCC is typically adjacent to the western levee, relative to the river, and maintenance activities may occur between the eastern toe of the western spoil levee and the toe drain to the west of the western O&M access road (an average distance of 230 feet, with occasional distances up to 300 feet). The LFCC, within the context of defining

an action area for this BiOp, parallels the river from San Acacia downstream to the Full Pool Elephant Butte Reservoir Level. The two exceptions to the LFCC being adjacent to the levee are around RM 111 and roughly between RM 72.5 and RM 69. At RM 111, there are two additional areas (total length of about 2,200 feet) where the LFCC footprint is extended (average additional width of 250 feet) to allow space for stockpiling materials used for river maintenance activities. Between RM 72.5 and RM 69, the LFCC also separates from a spoil levee, with the Tiffany Levee further to the east.

2.3 The MRGCD MRG Activities Action Area

The project and action areas for the MRGCD MRG activities includes the footprint (facility structure, O&M roads, spoil levees, and immediately adjacent property facility structure) of irrigation and flood control structures and facilities between Cochiti Dam and the southern boundary of Bosque del Apache National Wildlife Refuge (BDANWR).