



Plate A.1. Cochiti Dam at about RM 232.

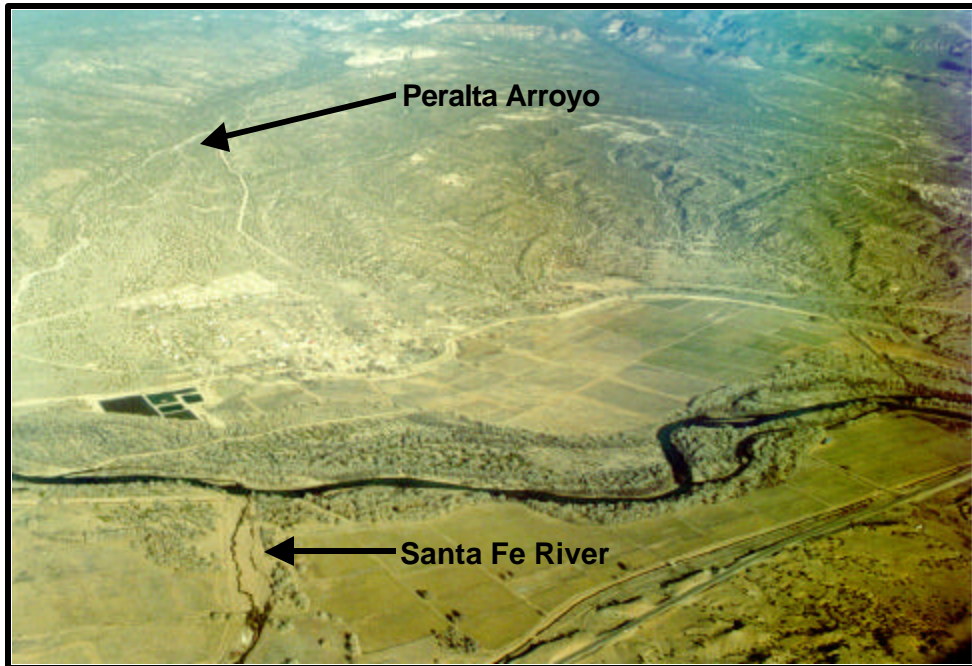


Plate A.2. View of Rio Grande in vicinity of Cochiti Pueblo at about RM 230. The Santa Fe River channel is on the left bank and Peralta Arroyo and fan are on the right bank. Note the split flow and heavily vegetated floodplain.



Plate A.3. View of Rio Grande in the Pena Blanca reach between RM 227 and 230. Split flows and a heavily vegetated floodplain are characteristic of the reach.



Plate A.4. View of bank stratigraphy at Pena Blanca (RM 227). Note the interbedded sands and gravels that reflect the caliber of the sediments that were being transported by the river when the floodplain was formed.

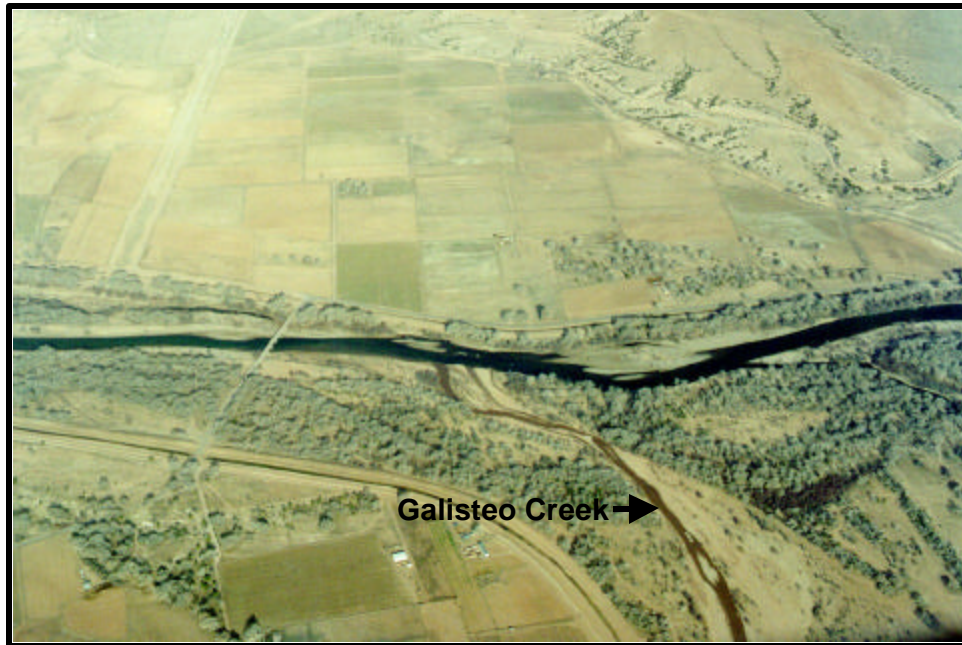


Plate A.5. View of Rio Grande at the Santo Domingo Bridge and confluence with Galisteo Creek at RM 224.5. The constriction caused by the tributary fan is causing some sediment deposition in the channel upstream of the confluence, as is evidenced by the un-vegetated bank-attached bar.



Plate A.6. View of Rio Grande at San Felipe Pueblo and Arroyo Tonque confluence at RM 216.2. The valley constriction formed by the bedrock outcrop and alluvial fan at San Felipe is the boundary between geomorphic Subreaches 1 and 2. Note the absence of unvegetated bars upstream of the confluence.

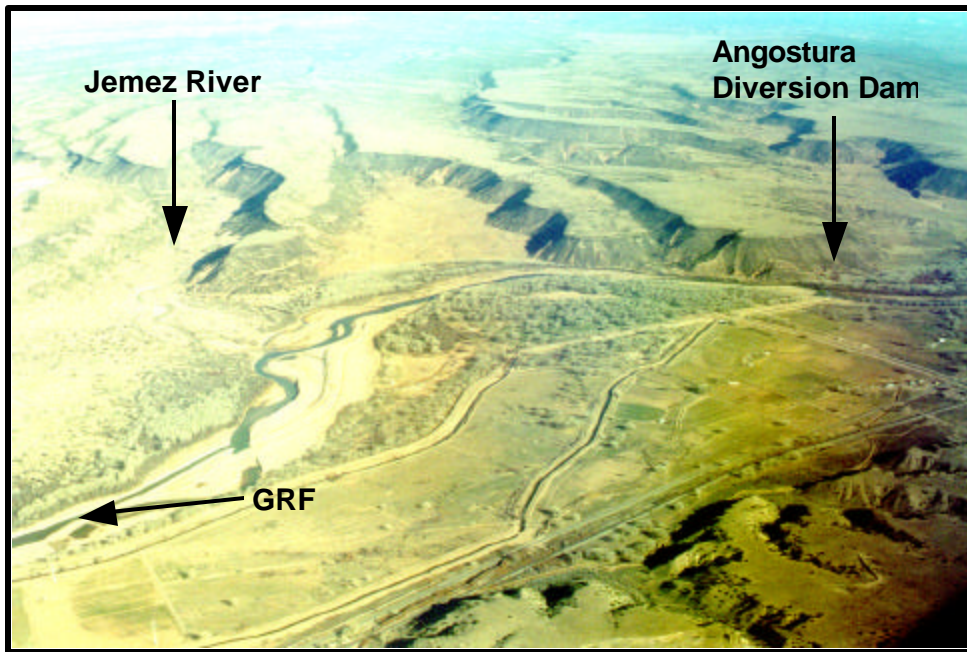


Plate A.7. View of Rio Grande at the confluence of the Jemez River at RM 208.2. The recently constructed GRF and channel modifications on the Santa Ana Pueblo can be seen in the center of the photo. Angostura Diversion Dam, located towards the upper right part of the photo at RM 209.7 is the boundary between geomorphic Subreaches 2 and 3.



Plate A.8. View of Rio Grande at the Angostura Diversion Dam at RM 209.7. Note a bank height of about 6 to 8 feet, indicating some channel degradation below the diversion.



Plate A.9. View of bed material at the head of the mid-channel bar downstream of the Angostura Diversion Dam. The maximum cobble size is 90 mm (Scale is 10 cm long).



Plate A.10. View of Rio Grande at Highway 44 Bridge at Bernalillo (RM 204). The Coronado State Monument is located along the right bank, and it is at this location that sandstone outcrop in the Santa Fe Formation prevents westward migration of the river. Note the partially vegetated sand and gravel bars in the channel.

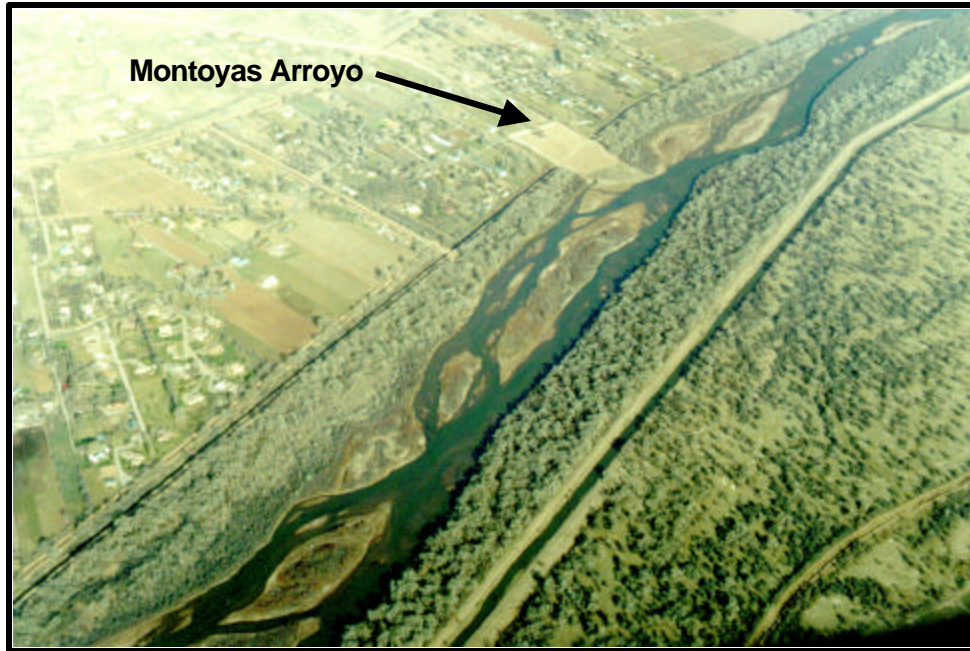


Plate A.11. View of Rio Grande with the confluence with Montoyas Arroyo at RM 198.3. Note the large, relatively high elevation vegetated mid-channel bars. Local sediment supply from Montoyas Arroyo permits the formation of braid bars locally.



Plate A.12. View of Rio Grande at the confluence with Calabacillas Arroyo located just upstream of the Paseo del Norte Bridge (RM 191). Note the high vegetated mid-channel bars upstream of the arroyo, and the lower elevation, less vegetated bars downstream.

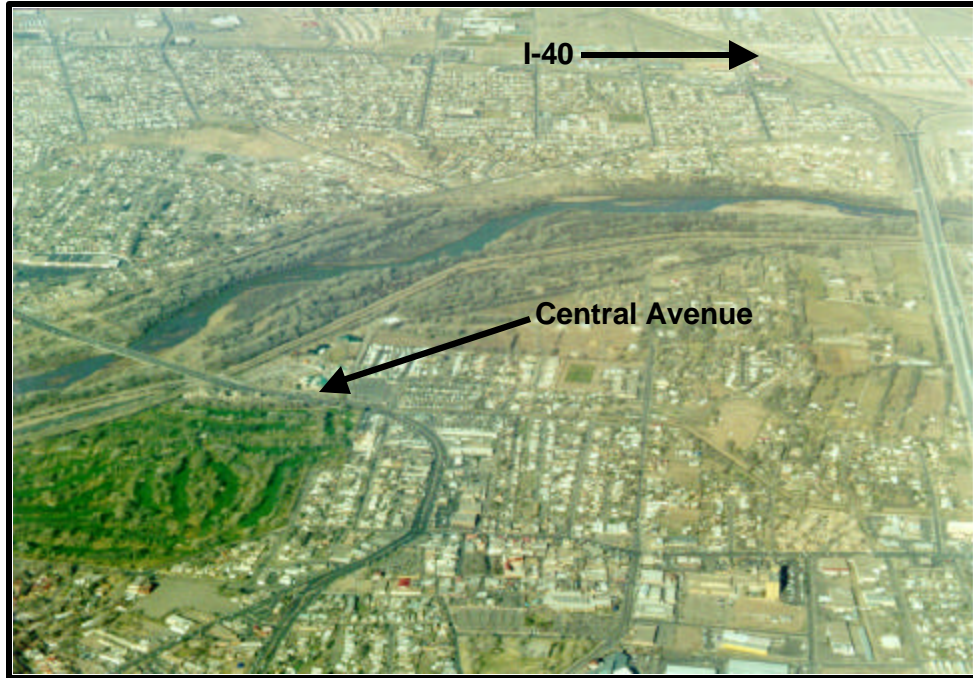


Plate A.13. View of Rio Grande in the vicinity of Central Avenue Bridge, where the USGS Albuquerque gaging station is located (RM 183.4). Note the heavily vegetated bank-attached alternate bars in the reach that constrain the low-sinuosity meandering channel.



Plate A.14. View of the Rio Grande in the vicinity of Bridge Blvd (RM 182). Note the presence of relatively high vegetated bars as well as lower height braid bars.

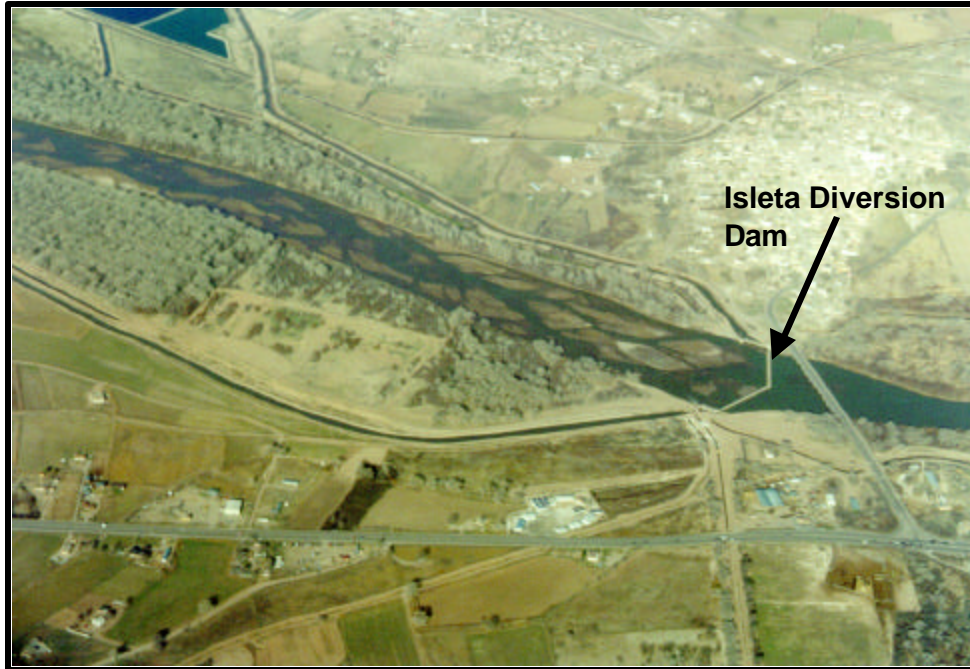


Plate A.15. View of Rio Grande downstream of the Isleta Diversion Dam at RM 169.2. Note the numerous unvegetated braid bars across the entire bed of the channel. The diversion dam is the boundary between geomorphic Subreaches 3 and 4a.



Plate A.16. View of Rio Grande between Isleta and Belen at about RM 164. Note the presence of bank-attached alternate bars and mid-channel braid bars.





Plate A.17. View of Rio Grande in the vicinity of the BNSF Railroad bridge at Belen (RM 147.7). Note the numerous braid bars in the channel. This is the boundary between geomorphic Subreaches 4a and 4b.



Plate A.18. View of Rio Grande at the confluence of Abo Arroyo at RM 139.2. Note the tributary mouth bar that has built out into the Rio Grande and the presence of numerous braid bars in the channel.



Plate A.19. View of Rio Grande at the US Highway 60 Bridge near Bernado (RM 130.6). The USGS gaging station is located at this bridge. Note the presence of numerous braid bars in the channel.



Plate A.20. View of Rio Grande at the confluences of the Rio Puerco and Salas Arroyo at about RM 126.8. Numerous braid bars are present in the channel upstream of the confluences.

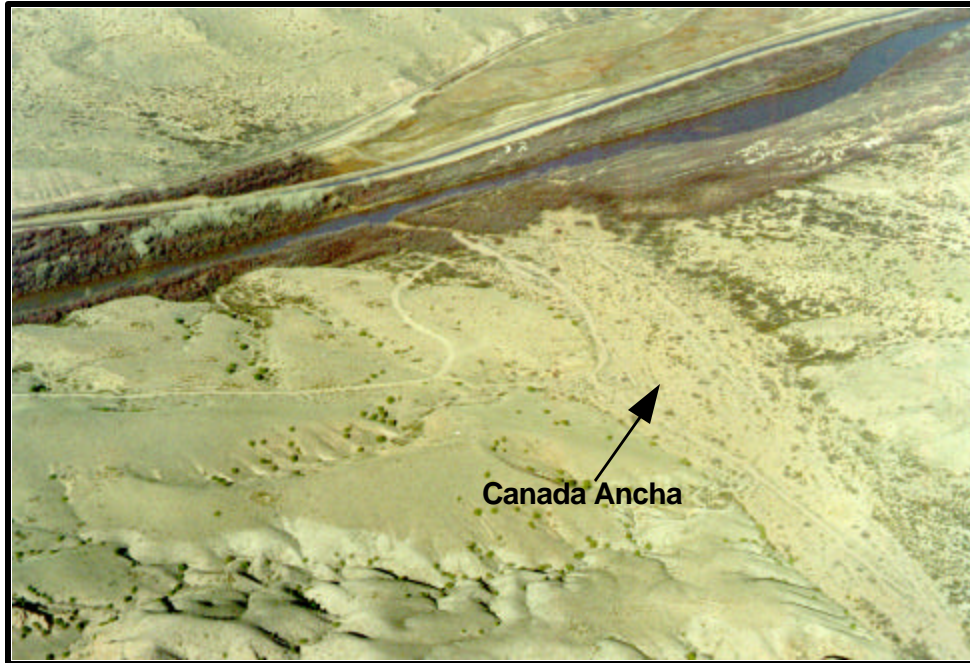


Plate A.21. View of Rio Grande at the confluence with Canada Ancha (RM 120.6) that forms the boundary between geomorphic Subreaches 4a and 5. Note the very narrow valley between outcrops of Santa Fe Formation, and the virtual absence of braid bars in the very narrow channel.



Plate A.22. View of the Rio Grande and the confluence with the Rio Salado at about RM 118.5. Note the size of the mid-channel bars that are composed of sand and gravel.



Plate A.23. View of bed material in Rio Salado. Clasts up to 120 mm are present in the bed, but the bulk of the material delivered to the Rio Grande is sand-sized (Scale is 10 cm).



Plate A.24. View of San Acacia Diversion Dam (RM 116.2) that forms the boundary between geomorphic Subreaches 5 and 6. Note the riprap emplaced to counter the effects of channel degradation downstream of the structure.

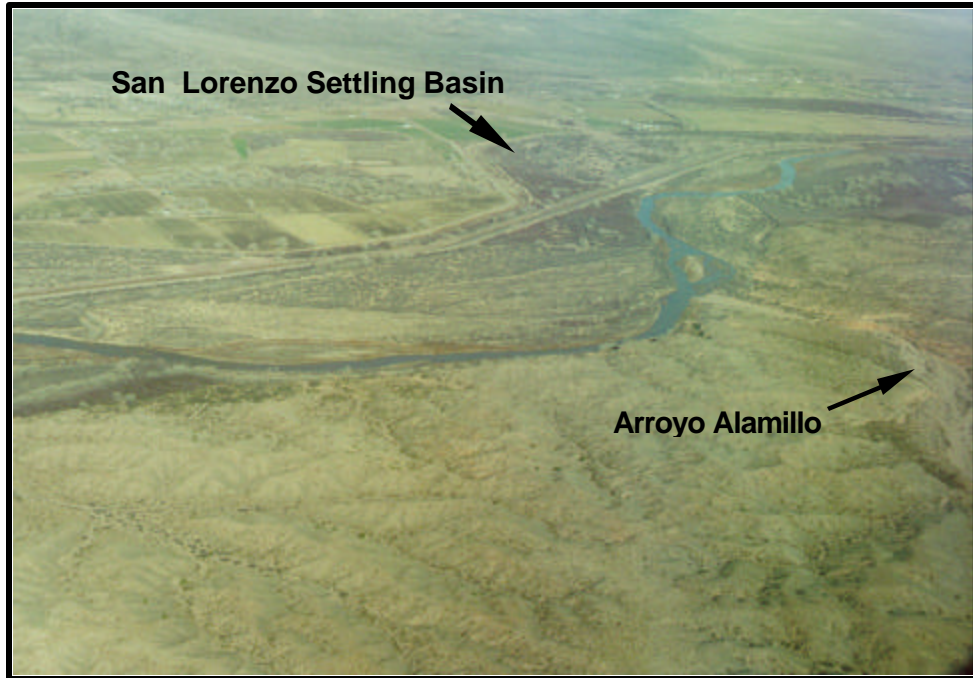


Plate A.25. View of the Rio Grande downstream of San Acacia at about RM 112. The San Lorenzo Settling Basin is located on the west side of the river and Arroyo Alamillo enters from the east. The arroyo is a point source of both sand and gravel. Note the general absence of braid bars in the channel.



Plate A.26. View of the Rio Grande in the vicinity of Lemitar at about RM 108. Note the wide channel and the presence of numerous braid bars.

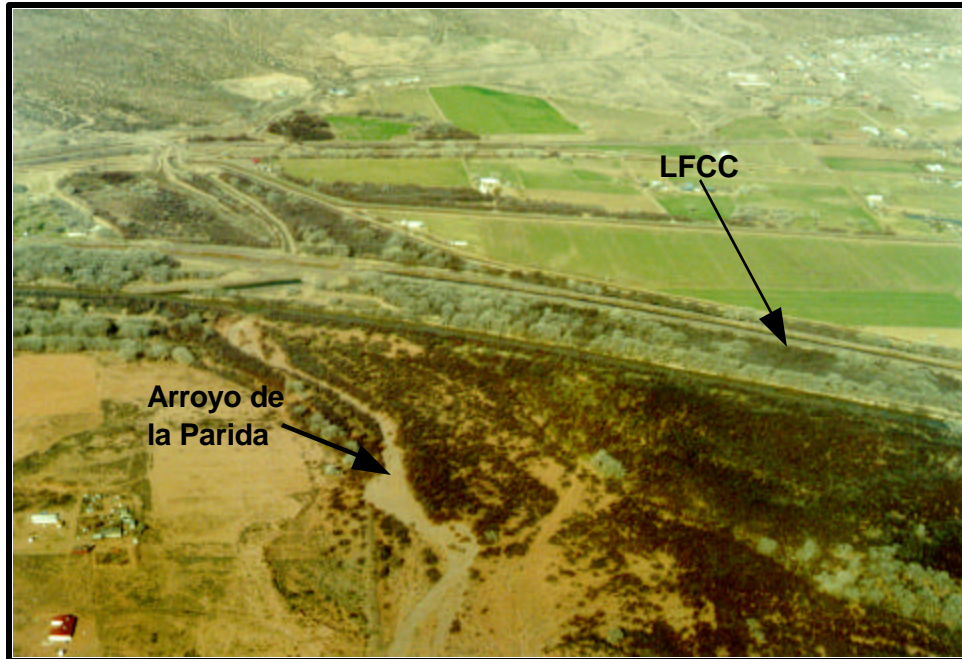


Plate A.27. View of the Rio Grande at the confluence with Arroyo de la Parida at RM 104.8. The alluvial fan constricts the channel of the Rio Grande at this location. This is the boundary between geomorphic Subreaches 6 and 7.



Plate A.28. View of the mouth of Arroyo de la Parida. Note the gravel bar in the bed of the Rio Grande that has been formed by coarse sediments introduced by the arroyo.

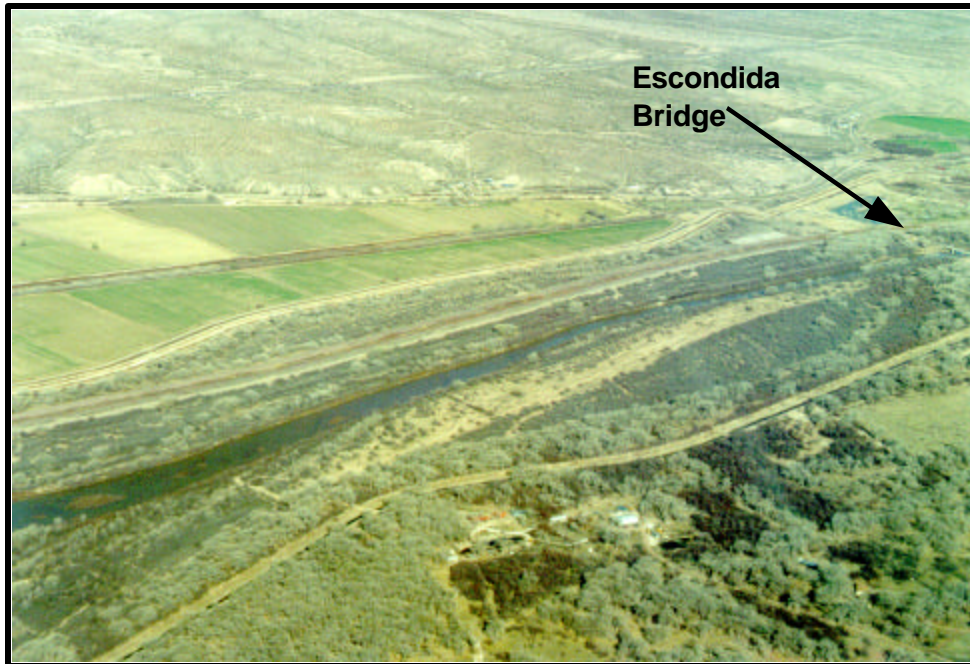


Plate A.29. View of the Rio Grande downstream of the Escondida Bridge at about RM 104. Note the very narrow channel and very limited number of braid bars.



Plate A.30. View of Rio Grande at the confluence with Arroyo de Las Canas (RM 95.2). Note the size of the tributary mouth bar and the sediment deposition upstream, as well as the number of braid bars in the wide channel.

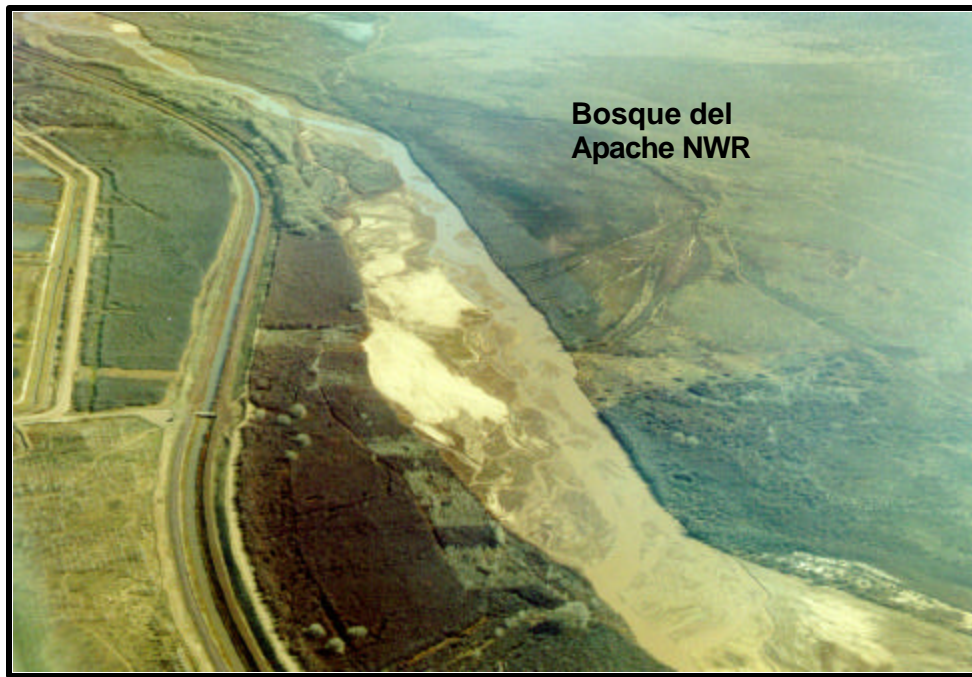


Plate A.31. View of the Rio Grande within the Bosque del Apache National Wildlife Refuge (RM 81) (geomorphic Subreach 8). Mechanical removal of vegetation on the right bank has increased the width of the river with a commensurate increase in the number of braid bars.

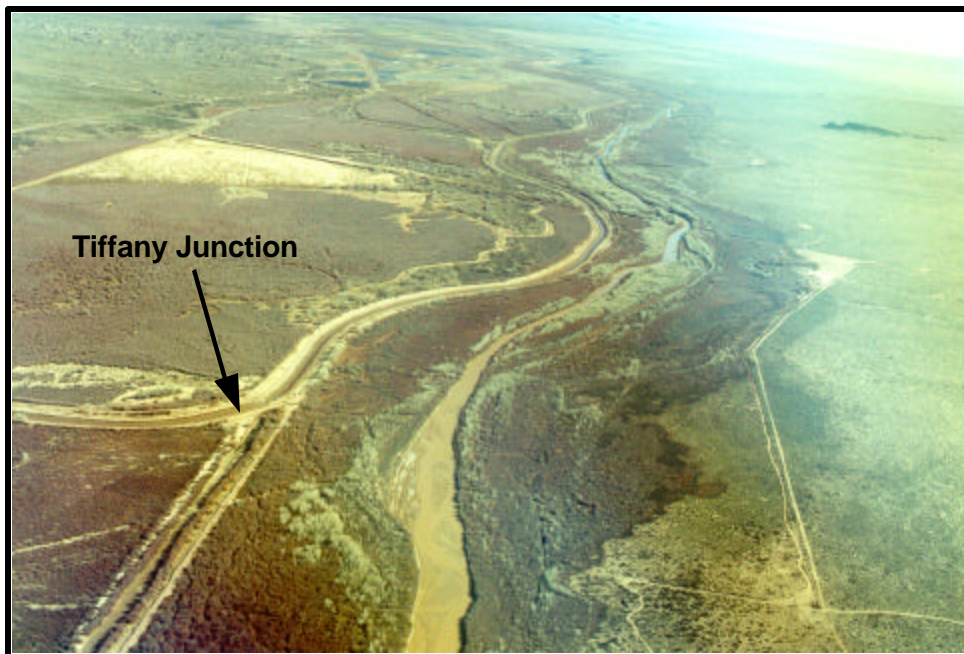


Plate A.32. View of Rio Grande in the vicinity of Tiffany Junction (RM 72.5). Note the narrow channel and the virtual absence of braid bars in the channel.





Plate A.33. View of Rio Grande at about RM 70. The channel is somewhat wider than average in Subreach 8, but the braid bars are covered with a thick drape of mud.



Plate A.34. View of the Rio Grande at the San Marcial Railroad Bridge and USGS gaging station at about RM 68.6. The reach is actively aggrading due to the backwater effects of Elephant Butte Reservoir. Note the extensive braid bars in the channel.



Plate A.35. View of the downstream face of the San Marcial Railroad Bridge showing the effects of aggradation.



Plate A.36. View of the Rio Grande downstream of Fort Craig at about RM 62. The channel is aggraded and contains numerous braid bars.