

History of Restoration Along the Middle Rio Grande

Richard A. Valdez¹, Linnea Spears-Lebrun² and Sarah Griffin²

¹Retired, SWCA Environmental Consultants, Logan, UT, USA

²SWCA Environmental Consultants, Durango, CO, USA

Historically, the Middle Rio Grande flooded laterally from snow-melt runoff, ranging from destructive floods to devastating droughts. To control the river's flow, five mainstem dams were constructed in New Mexico, along with hundreds of miles of levees and over 100,000 steel jetty jacks that confined and narrowed the river channel, effectively delinking the historic floodplain. This floodplain disconnection led to the decline of many native plants and animals, and there are currently five species listed under the Endangered Species Act, including the Rio Grande silvery minnow (*Hybognathus amarus*), southwestern willow flycatcher (*Empidonax traillii extimus*), New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), yellow-billed cuckoo (*Coccyzus americanus*), and Pecos sunflower (*Helianthus paradoxus*).

In 2003, the U.S. Fish and Wildlife Service issued a biological opinion that directed federal agencies to “...conduct habitat/ecosystem restoration projects in the Middle Rio Grande...” Nearly 300 sites ranging 0.4–5 ha and totaling 1,600 ha, have been constructed to inundate at discharges of 500–3,500 cfs and provide habitat for riparian species. The efficacy of this habitat restoration has not been systematically evaluated or monitored, but the New Mexico Interstate Stream Commission (NMISC) has conducted studies and evaluations since 2008, with technical assistance from SWCA. In 2023, the NMISC and SWCA initiated a program to catalogue restored sites, determine their geomorphic changes, and identify and recommend priority sites for further improvement.

Contact Information: Richard Valdez, 172 West 1275 South, Logan, UT, USA 84321, Phone: 435-757-7655, Email: valdezra@aol.com