

River Restoration Opportunities in the Middle Rio Grande even in a Water Uncertain Future

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The Rio Grande has changed rapidly in the past century primarily due to human intervention, from historically highly variable spring and monsoonal flows accompanied with widespread flooding and massive sediment movement along with extensive periods of drought and river drying into segmented river sections of controlled flows between dams to supply water for agriculture and reduce flooding to allow for development. Surface water was apportioned on the Rio Grande in the early 1900's between the states of Colorado, New Mexico, and Texas without attention to the ecological impacts on the river with the result that many native fishes were extirpated or became extinct and riparian habitats and wetlands were lost. With changing regulatory and societal values, restoring wildlife habitats particularly for federally listed threatened and endangered species, such as the Rio Grande Silvery Minnow and Southwestern Willow Flycatcher, within the remaining floodplain of the Middle Rio Grande has become a critical part of many federal, state, and local water manager's objectives while continuing to achieve their core missions. The New Mexico Interstate Stream Commission and the Middle Rio Grande Conservancy District have worked closely with other stakeholders to address multiple challenges in the Middle Rio Grande that affect the ability to deliver irrigation water, ensure interstate stream compact obligations to downstream water users are met, and manage and restore native plant communities and processes in rapidly changing climate, ecosystem, and water resource conditions. Examples of work include removing lateral constraints in the river, manual redistribution of sediment and vegetation, creating pulse flows for spawning fish, native vegetation planting, creation of habitat features, strategically providing water at irrigation outfalls, managing for fire, rehabilitating fire-scarred lands, and participating in water conservation and adaptive management.

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