

55th Annual New Mexico Water Conference NM Water Resources Research Institute

The Benefits of Restoring Our River Ecosystems

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Pecos River, Bitter Lake NWR

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Restored Rivers Generate Revenue and Jobs Especially For Rural Communities

- Tourism is world's largest industry and 2nd largest industry in NM generating \$5.7 billion annually
- Ecotourism is the fastest growing segment of tourism industry
- Outdoor recreation injects billions into NM's economy playing a substantial role in rural communities
- Fishing, hunting and outdoor recreation sustain 47,000 NM jobs



Restored Rivers Support Significant Biodiversity

- Species richness per unit area of freshwater habitat is greater than marine or terrestrial habitats
- Significant % of all wildlife in Southwest use riparian habitat
- Of the 867 vertebrate species in NM, 55% rely wholly or in part on freshwater habitat for survival
- 66% of NM's Important Bird Areas are located in freshwater habitats

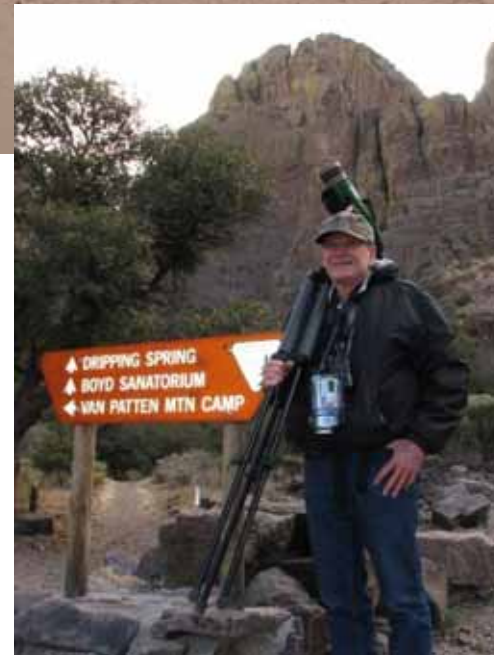


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Restored Rivers Attract Business, Provide Jobs and Ecosystem Services

- Key factors in attracting business, retirees and investment income
- Restoration creates jobs, and leverages federal and private funding
- Restored rivers enhance valuable ecosystem services



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Restored Rivers Provide Free Ecosystem Services Helping to Sustain and Fulfill Human Life

- Generate and maintain biodiversity
- Purify water
- Retain water and recharge groundwater
- Buffer droughts
- Regulate flood peaks and flow velocity
- Cycle and move nutrients
- Genetic and biochemical resources
- Moderate weather extremes



Broad Canyon Ranch

Restored Rivers Reduce Severity of Threats Posed by Climate Variability

- Naturally resilient to disturbance
- Provide linear habitat connectivity to aid distributional shifts
- Provide thermal refugia and favorable microclimates that protect biodiversity



Big Bend National Park

Restored Rivers Reap Big Benefits But Increasingly Stressed



- Greatest stressors: regulated river flows; channelization and invasive species
- North American freshwater systems are losing species at rates comparable to tropical rainforests
- 55% of NM's native fish species are threatened, endangered or extinct
- 31% of NM's assessed stream miles do not meet water quality standards
- 90% of NM's original riparian forests no longer exist and 33% of NM's original wetlands are lost

Meeting the Water Needs of Rivers in the Next Decade

- Market based transactions
- Water conservation program
- Strategic Water Reserve



Rio Grande, Las Cruces, NM

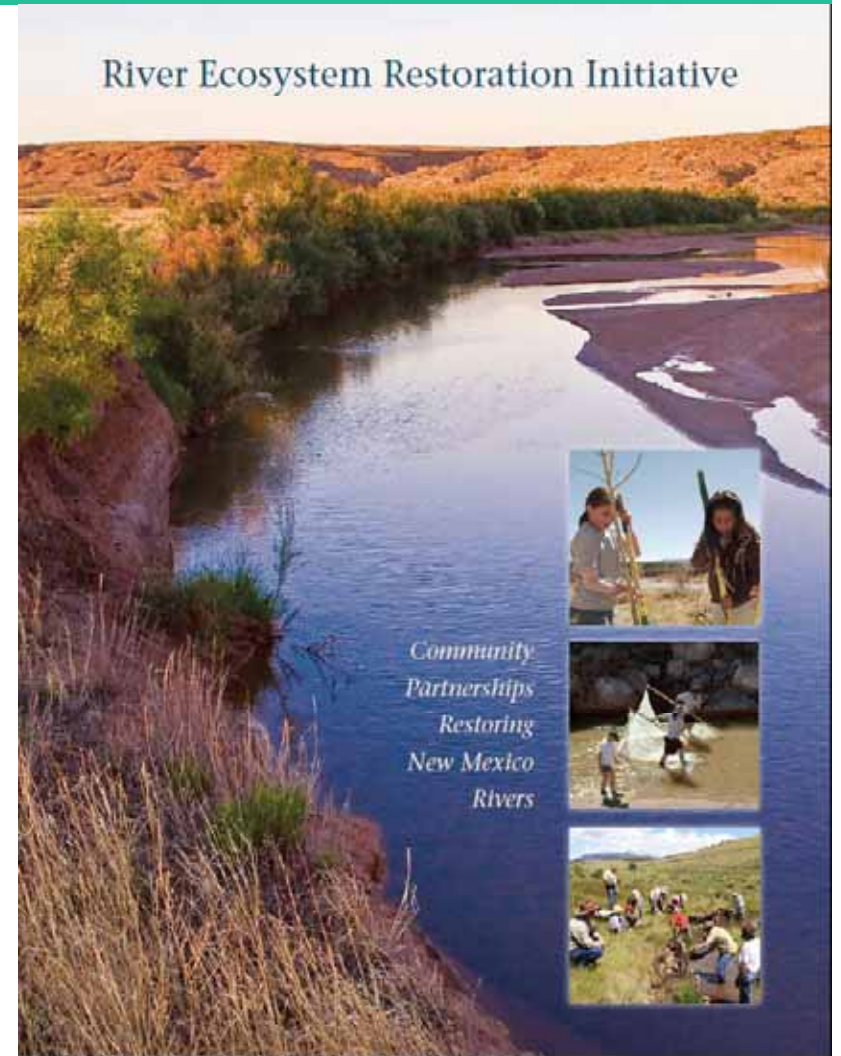
| Authority | Geographic reach | Water rights holder | OSE approval of application for change of use | Funding dependant | Target |
|---|---|--|---|-------------------|---|
| Strategic Water Reserve NMSA Sec. 72-14-3 | Statewide | NMISC with Commission Approval | Yes | Yes | T&E and candidate species that are aquatic or obligate riparian species |
| OSE Approved Water Conservation Program NMSA Sec. 72-5-28 (G) | Statewide | Existing water rights holders—public, private, corporate | No | No | Instream habitat |
| Irrigation District/Reclamation Project Approved Voluntary Market transactions Administrative policy | Southern Rio Grande and other Chapt. 73 Article 10 irrigation districts/ Reclamation Projects | Any interested party—public, private, corporate | No, but Irrigation Bd. approval is required | Yes | Both instream and streamside habitat |

Evolving Institutions for River Restoration

- Inception 2007
- Annual appropriations totaling \$8 million
- Funded 47 community supported restoration projects
- Restored 2,394 riparian acres and 33 river miles in first two years

Learn more at:

www.nmenv.state.nm.us/swqb/reri/



Evolving Institutions for River Restoration

- **Natural Heritage Conservation Act**
- Enacted in 2010, codified at NMSA 75-10-1 *et. al.*
- \$3.5 million awarded to seven conservation easements protecting ecological, agricultural, scenic and cultural values on 12,500 acres

AN ACT
RELATING TO THE ENVIRONMENT; ENACTING THE NATURAL HERITAGE CONSERVATION ACT; PROVIDING POWERS AND DUTIES; CREATING A FUND; PROVIDING FOR THE ACQUISITION OF CONSERVATION AND AGRICULTURAL EASEMENTS AND FOR RESTORATION PROJECTS; PROHIBITING THE ACQUISITION OF EASEMENT INTERESTS OR OTHER RIGHTS OF ACCESS THROUGH EMINENT DOMAIN OR OTHER CONDEMNATION PROCESS; MAKING AN APPROPRIATION.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

Section 1. SHORT TITLE.--This act may be cited as the "Natural Heritage Conservation Act".

Section 2. PURPOSE.--The purpose of the Natural Heritage Conservation Act is to protect the state's natural heritage, customs and culture by funding conservation and agricultural easements and by funding land restoration to protect the land and water available for forests and watersheds, natural areas, wildlife and wildlife habitat, agricultural production on working farms and ranches, outdoor recreation and trails and land and habitat restoration and management.

Evolving Institutions for River Restoration

- **Rio Grande Environmental Management Program (2007)**

- Rio Grande basin

- Authorized up to \$15 million annually

- for planning, construction and monitoring of fish and wildlife enhancement

- for long-term monitoring, data inventory and analysis, applied research and adaptive management

- Administered by USACOE

PUBLIC LAW 110-114—NOV. 8, 2007

121 STAT. 1041

Public Law 110-114
110th Congress

An Act

To provide for the conservation and development of water and related resources, to authorize the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States, and for other purposes.

Nov. 8, 2007
[H.R. 1495]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the “Water Resources Development Act of 2007”.

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Water Resources Development Act of 2007.
Inter-governmental relations.
33 USC 2201 note.

SEC. 5056. RIO GRANDE ENVIRONMENTAL MANAGEMENT PROGRAM, COLORADO, NEW MEXICO, AND TEXAS.

(a) DEFINITIONS.—In this section, the following definitions apply:

(1) RIO GRANDE COMPACT.—The term “Rio Grande Compact” means the compact approved by Congress under the Act of May 31, 1939 (53 Stat. 785), and ratified by the States.

(2) RIO GRANDE BASIN.—The term “Rio Grande Basin” means the Rio Grande (including all tributaries and their headwaters) located—

(A) in the State of Colorado, from the Rio Grande Reservoir, near Creede, Colorado, to the New Mexico State border;

(B) in the State of New Mexico, from the Colorado State border downstream to the Texas State border; and

(C) in the State of Texas, from the New Mexico State border to the southern terminus of the Rio Grande at the Gulf of Mexico.

Other Opportunities . . .

- **Regional water plan updates**
- **NM's Water Cabinet**
- **Water Trust Board**
- **Middle Rio Grande flood reduction projects**
- **Secure Water Act**
- **Integrated river basin management**

QUESTIONS?

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