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Ecological Flows in New Mexico – It Has Been Done

Adrian Oglesby

Federal Ecological Flows Biological Opinions

<u>River</u>	<u>Method</u>	<u>Implementation</u>
Pecos	Minimum Instream Flow	5 cfs at Acme gage
Rio Grande	Minimum Instream Flow + Adaptive Seasonal Minimums	100cfs at Central Bridge dry/average/wet years
San Juan	Habitat-Flow Relationship	Flow recommendations
Gila	Arizona Water Settlement Act	In play - Historic IFIM



Federal Ecological Flows Federal Water Rights – Wild & Scenic

River

Method

Implementation

Red River

Wild & Scenic

US-NM-Molycorp
(IFIM)

Jemez East Fork

Wild & Scenic

Abouselman Adjudication
(negotiated settlement)

Rio Chama

Wild & Scenic

Aragon Adjudication
(settlement schedule)



Federal Ecological Flows Federal Water Rights – Refuges



Bitter Lake National Wildlife Refuge

River

Pecos River

Refuge

Bitter Lake NWR

Implementation

Lewis Adjudication
(5 year monitoring of wetland ET
& spring flow – Stipulated Order)

State Ecological Flows State Storage Permits

Rio Grande & Pecos River Biological Opinion flows stored in “Conservation Pools”

The Compact Commissions are permitting storage of water to support Biological Opinion requirements in Rio Grande & Pecos River reservoirs.

Original authorizations of reservoirs should be expanded to clarify the ability of right holders to store water for ecological flows.



Photo by Ryan Mlynarczy

State Ecological Flows State Water Rights

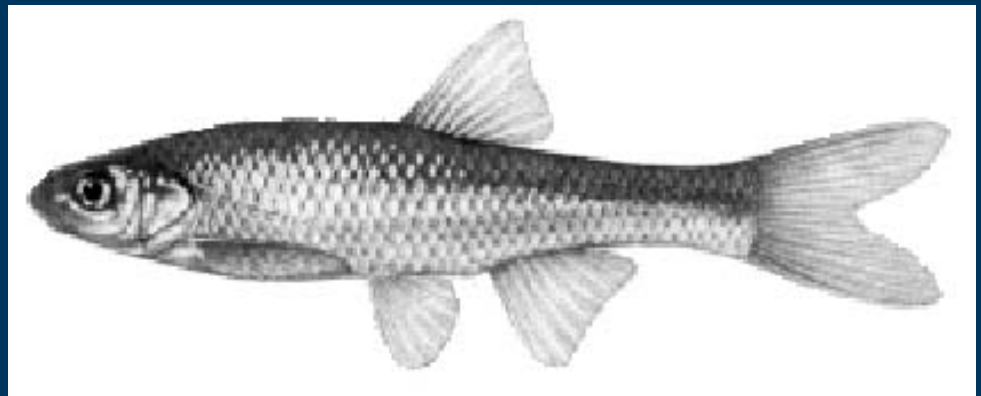
The New Mexico Interstate Stream Commission has applied for and received State Engineer surface water permits to augment the flows of the Pecos River for ESA and Compact compliance.

Vaughan Pipeline:

Groundwater irrigation rights transferred to instream flow,
limited to transfer of Consumptive Use Right

Seven River Wellfield:

Surface and groundwater irrigation rights transfers to instream flow for
Compact deliveries in progress



Bluntnose Shiner by Joseph Tomelleri

State Ecological Flows Strategic Water Reserve

The New Mexico Interstate Stream Commission is authorized to acquire water for ESA & Compact compliance.

Vaughan Pipeline:

Groundwater irrigation rights purchased by New Mexico and then leased to Reclamation to meet Biological Opinion minimum instream flow target.



Photo by James Van Dyke

Rio Grande SWR effort is underway to offset new habitat surface water ET.

State Ecological Flows Conservation Water Program

Water rights may be temporarily “retired” but protected from threat of abandonment or forfeiture if placed in a State Engineer approved Conservation Water Project.

Pecos River CWP:

Sufficient groundwater irrigation rights purchased and retired by New Mexico to overcome 10,000 a/ft/yr compact delivery deficit.

BLM has enrolled surface irrigation rights in Pecos CWP to maintain flows in the Black River.

Mimbres CWP:

Forest Service for chub.

Gila CWP:

Freeport for water right preservation.



Photo by
Patrick McCarthy

Pecos Valley Artesian District:

Long-term water right retirement program to regain groundwater elevation.

Carlsbad Irrigation District:

Historically leased surface water to meet Compact delivery requirements.

Middle Rio Grande Conservancy District:

Cut gross diversions in response to environmental pressure.



Photo by
Cliff Crawford

The New Mexico Living Rivers Program

The Nature Conservancy's Living Rivers Program,
protecting New Mexico's freshwater ecosystems
for nature, people and the future.



Photo © Anthony Howell