

APPENDIX 9

**MRGCD PROPOSED CONSERVATION
MEASURES – 7/24/2012 DRAFT**



Memorandum

To: MIKE HAMMAN, AREA MANAGER – US BUREAU OF RECLAMATION
From: SUBHAS K. SHAH, CE/CEO *SKS*
Date: JULY 24, 2012
Re: **PROPOSED BA CONSERVATIONS MEASURES**

Attached are the proposed Conservation Measures to the Biological Assessment that were approved by the Middle Rio Grande Conservancy District Board of Directors at their regular meeting on July 23, 2012.

Please contact me if you have additional questions.

SKS/eb

Attachment

Proposed MRGCD Conservation Measures

Preamble

1. Pursuant to its statutory general grant of powers (NMSA 1978, § 73-14-48), MRGCD has authority to enter into an endangered species Recovery Implementation Program (RIP) and to undertake certain species survival and recovery actions to be incorporated within the MRGRIP Action Plan. However, MRGCD has no authority to violate its statutory obligations and MRGCD is specifically prohibited from relinquishing control of the waters or lands of the District or from administering or managing District waters in such a way as to impair the private water rights of individual irrigators or its own statutory water rights (NMSA 1978, § 73-14-47).¹
2. MRGCD has the authority to develop an Operating Plan to carry out some of the programs within the RIP that will benefit listed species (NMSA 1978, §§ 73-14-48 *et seq.*), but MRGCD has no authority to relinquish its authority to implement the terms of such an Operating Plan to any third party, particularly when such implementation may involve control of the use of the District waters or lands (NMSA 1978, § 73-14-47).
3. MRGCD has the authority to lease or otherwise provide reservoir storage space for a “supplemental water pool” and to assist in developing programs for use of that storage to provide protection for the RGSM consistent with the RIP, and as a contribution to cost-share, but it cannot do so in a way that reduces storage for persons entitled to receive water from the MRGCD (NMSA 1978, § 73-14-47).

Consistent with the above limitations, the MRGCD proposes the following actions for conservation of the species:

- A. The MRGCD recognizes the need for ESA compliance and the need to continue to cooperate with Reclamation in future compliance efforts, which include the conjunctive management of water for species needs, municipal withdrawals, RGC obligations, and irrigation needs. The MRGCD will develop annually an Operating Plan. This Plan will coordinate the delivery of irrigation water to water rights holders and water users within the MRGCD. The Plan will also assist in meeting the needs of the listed species for population survival and recovery, including spawning, recruitment and survival habitat needs as determined by using the best available scientific information. The development and implementation of this MRGCD

¹ See *Gutierrez v. MRGCD*, 34 N.M. 346, 282 P. 1 (1929) (citing the full protection of private water rights afforded by Section 316 of the Conservancy Act).

Operating Plan will be incorporated into the Middle Rio Grande Recovery Implementation Program (MRGRIP) Action Plan as part of the conservation actions and/or tasks which are expected to permit the MRGRIP to attain and maintain compliance with the ESA.

B. The MRGCD will cooperate with state and federal agencies in creation and operation of a "supplemental water pool" consisting of up to 30,000 AF to be stored in available space in Abiquiu reservoir. Water stored for ESA purposes may, subject to ISC approval, be stored under the authority of the Strategic Water Reserve. Water stored separately by MRGCD for irrigation purposes will be managed by the MRGCD under its authority contained in the Conservancy Act. The conjunctive management of MRGCD water will provide some environmental and biological benefits to RGSM. The creation of the SWR was authorized by the NM Legislature in 2005, for the purposes of providing a water reserve to help New Mexicans manage through drought periods. In addition to meeting the needs of water users and NM's delivery obligations under the RGC, a goal of the pool will be to assist in providing flows needed for ESA purposes, and in so doing, to protect the rights of existing water users. Storage space at Abiquiu Reservoir for the pool was set aside by the ABCWUA as a result of a settlement between ABCWUA and Environmental groups when the ABCWUA was seeking to permit and construct its SJC Diversion works.

Water supply for the pool may come from a variety of sources including uncontracted SJC water and purchases of SJC water by the Federal Government from willing sellers. The use of surplus SJC water would be a primary choice for development of water supply, along with RG water stored as a result of NM having relinquished credit water in Elephant Butte reservoir to Texas under the Rio Grande Compact. Use of this water would be subject to the limitations of New Mexico water law. MRGCD is largest and most likely recipient of credit water stored as a result of relinquishment and in the absence of ESA requirements would logically be the recipient of most of this water. Relinquishment credit water (more correctly stated as the right to store water against relinquished NM RGC credits) is made available by the New Mexico Rio Grande Compact Commissioner. MRGCD will urge that a percentage of water resulting from credit relinquishments to the pool be allocated for ESA purposes. MRGCD will cooperate with appropriate entities to maximize NM credit status under the RGC, and increase the opportunities for future credit relinquishment to benefit both the ESA needs and MRGCD water supply. Concurrently, MRGCD will expand its opportunity for storage to manage through drought by completion of agreements with ABCWUA to store up to 50,000 AF of water at Abiquiu Reservoir. Space at Abiquiu reservoir for this purpose was pledged by ABCWUA as a result of MRGCD withdrawing its objections to permitting and construction of the ABCWUA SJC diversion works. While MRGCD has authority over water it holds in storage, MRGCD will

cooperate and coordinate with NMISC, ABCWUA, BOR and other appropriate entities to conjunctively manage releases from storage and releases from the pool to maximize flexibility in Rio Chama water operations for the benefit of environmental/recreational concerns, and to minimize evaporative or conveyance losses.

C. Depending on the available water supply and consistent with its primary statutory mission of conveying and delivering water for its use in agriculture, when MRGCD has water surplus to the needs of its irrigators within its canal system, the MRGCD will manage its diversions and outfalls to return excess flows to the Rio Grande for habitat areas and other designated sites, as determined by, and consistent with tasks identified within the MRGRIP Action Plan. The MRGCD will participate with other MRGRIP entities, in particular with the U.S. Fish and Wildlife Service, the MRGRIP Science Coordinator and scientific workgroups, and the MRGRIP management and Executive Committee, to identify and study key habitat areas to which water can be returned, especially during critically dry periods, to serve species population needs for survival and recovery, as determined by the best available scientific information, by maintaining wetted habitat for silvery minnow when drying is occurring elsewhere in the river. This commitment will not compel the District to deliver water to habitat or other sites when it is needed to serve irrigators' requirements.

When the MRGCD determines that water surplus to irrigation needs is not available within the MRGCD system, and flow to designated habitat or other areas for species needs is desired, MRGCD will convey water to these areas from available species water resources. MRGCD's contribution will be to bear the conveyance loss from point of release at a reservoir to point of delivery at habitat area, if MRGCD is delivering water along these same pathways for irrigation purposes. An exception may occur if delivery of water to a designated habitat area requires the use of a canal or other water pathway which is not normally or currently in use, in which case species water would be required to incur actual conveyance losses.

D. The MRGCD will cooperate and assist with the creation and enhancement of specific habitat areas, the so-called "String of Pearls" to provide a series of refuge areas where RGSM populations may be maintained during normal periods of low and intermittent flow in the MRG. These areas tend to be located near MRGCD outfalls which typically discharge excess water, or which can be readily used to convey species water with minimal losses. These areas are located in the Albuquerque, Isleta, and San Acacia reaches of the Rio Grande. The MRGCD will maintain its outfalls and, consistent with existing agreements, the federal agencies will provide

maintenance and enhancement of river areas through channel shaping, bank modification, vegetation management, food management, and biological management (non-native or predator removal) to provide conditions suitable to preserving maximum numbers of RGSM in good health for extended periods of time. The "String of Pearls" will provide RGSM refugial habitat between Cochiti reservoir and Bosque del Apache. The locations of the pearls are illustrated in the following map:

E. To allow more precise control and management of water supply to San Acacia dam, MRGCD will pursue construction of a siphon near Bernardo, NM to deliver excess irrigation returns from the San Juan Riverside Drain system directly to the Unit 7/Socorro Main Canal system. This is envisioned to allow for more reliable water supply to the MRGCD Socorro division while simultaneously reducing the total annual volume of water required for diversion at San Acacia dam. This would be anticipated in turn to benefit peak flows through San Acacia dam, and sediment movement and river morphology upstream and downstream of San Acacia dam with associated benefits for RGSM. During times of low or no flow, the Bernardo siphon could be envisioned to assist with management of the "String of Pearls" by creating a refugial area downstream of the siphon itself, and creating a more dependable water supply at San Acacia dam for the maintenance of a refugial area downstream of the dam. It is anticipated that costs of this project operations will be borne in part by the MRGCD, and in part by the federal government. Once the anticipated water supply benefits of the Bernardo Siphon Project have been realized, distribution of water supplies resulting from the Project could be directed by the District to meet the needs of water users in the MRGCD Socorro division in conjunction with those of the listed species.

F. To provide a water supply for the last pearl on the string, MRGCD will construct a return flow collection system at its southern boundary. Excess water from the San Antonio Acequia, the Socorro Main South Canal, the Socorro Riverside Drain, and the Elemendorf Drain will be routed to a central collection/distribution point. At the distribution point, water will be directed into the Low Flow Conveyance Channel and will be lifted back to the Rio Grande through a permanent electrically powered pumping station to be constructed by the MRGCD and operated and maintained by the BOR. It is anticipated that costs of these operations will be supported as cost-share by the MRGCD, and also by the federal agencies and the MRGRIP. Distribution of water at this point will be to meet the needs of the listed species, the water rights of the Bosque del Apache National Wildlife Refuge, and RGC delivery obligations.

G. Recession Management

During inevitable low and intermittent flow periods on the RG, RGSM mortality may be greatly reduced by controlled rates of recession, allowing individuals to move to suitable habitat locations (the String of Pearls). Controlling this rate of recession can be challenging, and has in the past resulted in usage of large amounts of species water. This may be at the conclusion of the spring snowmelt period, or after periods of heavy precipitation. To the extent permitted by the Rio Grande Compact, a controlled rate of recession may be produced by USACE reducing releases from Cochiti reservoir in a series of small steps. As a part of the conservation measures to the MRGRIP, the MRGCD will establish a policy where during times of floodwater storage and managed recession for RGSM, MRGCD available natural flow will be determined by the theoretical release from Cochiti reservoir in the absence of any such managed recession. In this way, USACE may have greater flexibility in controlling the rate of recession for RGSM without affecting NM's RGC deliveries to Elephant Butte. This mechanism would require an update to the Water Control Manual for Cochiti reservoir.

H. The MRGCD will actively participate in the creation of habitat to benefit the lifecycle of the RGSM. Habitat creation will be the responsibility of an interagency team consisting of MRGCD, the NMISC, BOR, USFWS, and USACE. The MRGCD will provide assistance in obtaining funding (cost share, etc.) and/or land for habitat restoration. Habitat restoration may be focused on enhancing the interconnection between active river channel and floodplain, as well as other types of restoration. Habitat restoration will be engineered to provide progressively greater levels of inundation at increasing flows, resulting in a range of habitat types. An initial goal over a XX year period will be 75 acres of RGSM habitat across the range of discharges.

I. To the degree permitted by New Mexico water law, the MRGCD will cooperate with efforts to establish a program whereby groundwater users within the MRGCD may offer water for lease to BOR or other groups for the express purpose of providing flows from wells for endangered species. Water provided to this program will be from willing lessees with pre-1907 or pre-basin groundwater pumping rights for agricultural use. Transfers of use of irrigation wells to instream uses will need to go through the OSE application and permitting process. Administration of this program must necessarily involve close coordination with the NMOSE and MRGCD to establish appropriate volumes of water and rates of flow, and to insure and verify that land from which pre-1907 water rights have been transferred for species use do not continue to be irrigated (absent an MRGCD water bank withdrawal).

J. While the development of new modeling and analysis continues to assist in addressing species management uncertainties, the MRGCD will continue to fund the current PVA and statistical data analysis efforts through a research agreement as a contribution to the scientific understanding of the RGSM.

Joint Biological Assessment,
Part I – Water Management
Appendices