**Middle Rio Grande Endangered Species Collaborative Program**

**Guiding Principles**

# Mission

The Middle Rio Grande Endangered Species Collaborative Program provides a collaborative forum to support scientific analysis and implementation of adaptive management to the benefit and recovery of the listed species pursuant to the Endangered Species Act within the Program Area, and to protect existing and future water uses while complying with applicable state, federal and tribal laws, rules, and regulations.

# Goals

1. Establish and maintain a self-sustaining population of endangered Rio Grande silvery minnow (RGSM) distributed throughout the Middle Rio Grande (MRG).
2. Maintain and protect the MRG recovery unit goals for endangered southwestern willow flycatcher (SWFL).
3. Maintain and protect suitable threatened yellow-billed cuckoo (YBCU) habitat in the MRG.
4. Establish and maintain a self-sustaining endangered New Mexico meadow jumping mouse (NMMJM) population in the MRG.
5. Maintain and protect the threatened Pecos sunflower (PESU) in the MRG.
6. Avoid the future listing or up-listing of species in the Collaborative Program area.
7. Manage available water to meet the needs of endangered species and their habitat.

# Objectives

## RGSM Objectives

A-1) Estimate the abundance of augmented and wild born RGSM populations in the Angostura, Isleta, and San Acacia reaches from year to year.

A-2) Increase understanding of how the life history traits of the RGSM change over time and space, to better inform management of the species and increase the probability of recovery.

A-3) Determine the relationships between base flow and survival and recruitment of RGSM in the MRG.

A-4) Evaluate suitable environmental flow (i.e., timing, duration and magnitude of spring hydrograph), given system constraints and opportunities, needed to cue spawning and recruitment for the RGSM population.

A-5.1) Refine existing research and modeling efforts to understand the quantity and quality of habitat available at different flow regimes by 2030.

A-5.2) Develop a range of options for increasing habitat availability and refugia at life stage limiting flow regimes for all life stages by 2030.

A-6.1) Evaluate the effects of species management (i.e., propagation, augmentation, rescue/salvage) on RGSM genetic diversity.

A-6.2) Evaluate the effects of species management (i.e., propagation, augmentation, rescue/salvage) on RGSM population viability.

## SWFL Objectives

B-1) Monitor for SWFL in the MRG management unit of the Rio Grande recovery unit.

B-2) Determine SWFL habitat availability within the MRG.

B-3.1) Characterize optimal breeding habitat conditions in currently occupied SWFL locations to inform restoration.

B-3.2) Manage successional processes that maintain existing SWFL breeding habitat in the Program Area.

B-3.3) Expand SWFL breeding habitat through restoration efforts in the Program Area.

## YBCU Objectives

C-1.1) Characterize optimal habitat (i.e., foraging and nesting) conditions on landscape and microhabitat levels in currently occupied YBCU locations to inform habitat mapping and restoration efforts.

C-1.2) Determine successional processes that promote optimal YBCU habitat (i.e., foraging and nesting) in the Program Area.

C-1.3) Expand monitoring efforts for YBCU.

## NMMJM Objectives

D-1.1) Initiate and support NMMJM monitoring efforts to locate existing populations, identify relevant habitat features, and identify potentially suitable unoccupied habitat.

D-1.2) Contribute to efforts to expand habitat and preserve existing habitat in the MRG.

## PESU Objectives

E-1.1) Continue and expand monitoring and surveying for PESU stands in the West-Central New Mexico Recovery Region.

E-1.2) Preserve and expand existing habitat stands in the West-Central New Mexico Recovery Region.

## Other Objectives

F-1) Monitor trends in ecosystem function in the MRG for indications of decline (e.g., changes in vegetation structure and composition, population trends in other special status species, etc.).

F-2) Determine the impacts from non-native vegetation on listed species’ habitat availability and population dynamics.

G-1) Support efforts to enhance the operational flexibility of water managers to support species.

G-2) Outreach to external stakeholders and the public about Collaborative Program activities, initiatives, and priorities.