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Middle Rio Grande Conservation Action Plan: Framework and Status Assessment

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COLORADO NATURAL HERITAGE PROGRAM

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Executive Summary

We report here on the development of a Conservation Action Plan for sustainable stewardship and enhancement of the natural habitats of the Middle Rio Grande corridor in the context the complex agricultural and urban setting of this vital river landscape. The first steps of the process were to develop ecologically-based framework for stewardship, identifying conservation targets, and providing an initial assessment of their current and desirable future status based on measureable indicators. Additionally, major threats or stressors to the conservation targets are identified and evaluated with respect to the severity of their potential impacts. The overall goal of the planning process is to provide a foundation for developing operational strategies that can be applied to meet conservation goals in collaboration with the many partners and stakeholders.

Taking an ecosystem approach, the five conservation targets were identified: 1) riparian and wetland vegetation communities, 2) native bird communities, 3) native fish communities, 4) wildlife corridors, and 5) ditch and drain habitat. Across these five targets, 36 indicators were evaluated and conditions rated from Poor to Very Good (e.g., noxious weeds, fish habitat complexity, bosque forest structure, etc.). More than 60 percent of the individual indicators were rated as fair while about 15 percent were rated as poor and 20 percent as good or very good. The overall current conditions were rated as fair with a desired condition of good as a target for the coming ten years. Downward trends were mostly rated as mild, suggesting that strategies can be developed that can lead to further improvement and achieving a good rating over the next decade for the Middle Rio Grande.

The identified threats and their potential impacts indicate that the ecosystem as a whole is imperiled. Urban development, dam operations, and channelization are identified as the greatest threats to the majority of conservation targets. Overall, the native fish community is the most imperiled target. Most of the threats identified are systemic and due to large-scale ecosystem modifications for human development and water use. These ecosystem modifications are essential to the more than one-million people who live in the Middle Rio Grande Valley. However, management of both the infrastructure and the water resources can be modified within certain legal and management constraints to make use of available water and sediment to mimic natural conditions that can lead to a reinvigorated Middle Rio Grande ecosystem—one that can sustain fish and wildlife communities along with a resilient cottonwood bosque well into the future.

The next step is to develop strategies and specific objectives that can be applied in and specific reaches of the Middle Rio Grande. This conservation action plan provides a well-structured framework for developing strategies, evaluating progress towards meeting conservation goals, and setting the agenda going forward. The vision is that working together towards a healthy Rio Grande ecosystem will not only provide for sustainable fish and wildlife habitat, but also lead to enhanced water quality and availability, lowered fire hazards, improved recreational opportunities and associated economic vitality, and a collective sense of stewardship pride for this world-class river ecosystem.