New Mexico's Rapid Assessment of Lowland Riverine Wetland Ecosystems: Understanding Condition to Carry Out Comprehensive Restoration

***Maryann M. McGraw*[1], *Esteban H. Muldavin*[2], *Elizabeth R. Milford*[2]**

[1]New Mexico Environment Department, Surface Water Quality Bureau, Santa Fe, NM, USA

[2]Natural Heritage New Mexico Division, Museum of Southwestern Biology, University of New Mexico, Albuquerque, NM, USA

Given the predominantly arid environment of New Mexico, water is not only more limited but is highly variable across the landscape and through seasons and years. New Mexico's lowland riverine corridors are highly dynamic and complex fluvial environments supporting biologically complex ecological communities. The complexity of lowland riverine corridors guided the development of New Mexico's Rapid Assessment Method (NMRAM) for lowland riverine wetlands tailored to represent the ecological integrity of a relatively large low-gradient river system flowing through a broad river valley and structured to recognize the evolution of fluvial surfaces in response to flooding and channel migration. The NMRAM for lowland riverine wetlands uses a set of 14 observable and relatively easy to measure landscape, biotic and abiotic map-based and field-based indicators to express the condition against a reference disturbance gradient. It was originally developed in the context of a relatively intact reference set (the Gila River in NM), and scores may be significantly lower in controlled river systems such as some reaches of the Rio Grande. The premise is that the current condition score applies to the entire sample area which represents the Wetland of Interest and considers the restoration in the context of the entire complex. However, the scores for individual metrics or attribute category can be used to target restoration measures that improve ecological integrity and may increase overall scores. A checklist of stressors that are potential drivers of declining ecological condition helps identify what might be affecting condition primarily at a landscape scale.

Contact Information: Maryann McGraw, NMED Surface Water Quality Bureau Wetlands Program, 1190 St. Francis Drive, Rm 2059N, Santa Fe, New Mexico, Phone: 505-490-3135, Email: maryann.mcgraw@env.nm.gov