

NEW MEXICO WATER RESOURCES RESEARCH INSTITUTE

Recent Research

NMWRRI MISSION

Located on the New Mexico State University campus in Las Cruces, the New Mexico Water Resources Research Institute's mission is to develop and disseminate knowledge that will assist the state and nation in solving water problems.

Through the funding of **RESEARCH** and demonstration projects, the NMWRRI provides opportunities for faculty members and students statewide to use their knowledge and experience to solve New Mexico's pressing water problems. The WRRI works primarily with the three major research universities in New Mexico: New Mexico State University, University of New Mexico, and New Mexico Tech.

An integral part of the institute's mission is **TRAINING** students who will someday be our water professionals. Over the past four decades, the NMWRRI has financially supported over 600 students who have worked with faculty in their respective departments on water-related research. Many more students, particularly at the undergraduate level, have worked on projects supported by the WRRI.

The institute maintains a vigorous **INFORMATION TRANSFER** program that takes results from the university to the user and the public. Technical publications, newsletters, conferences, press announcements, and presentations keep the citizens of New Mexico apprised of new technology and research advances.

Federal Authorization

The NMWRRI was established in 1963 by the NMSU Board of Regents and became one of the first of 54 state institutes approved nationwide under the authorization of the 1964 Water Resources Act. The Act created and funded Water Resources Research Institutes in each state in the nation.

Endangered Species Recovery Research Underway

The biology of many endangered species is poorly understood, as is the case with the critically endangered Rio Grande silvery minnow. New Mexico State University Professor David Cowley leads a research team who is studying the early life history of the silvery minnow in an attempt to provide a more effective recovery plan for the fish. Cowley, his research associates, and students are conducting pilot laboratory studies and field studies to learn basic facts related to downstream drift of silvery minnow embryos. The researchers are also conducting an inventory of vegetation associated with water conveyance structures. The assessment of vegetation could suggest modifications of water conveyance structures associated with fish passage. This is a very important effort at a time when urban growth and drought are exacerbating stress on water supplies, which negatively impact the survival of the silvery minnow.



Professor David Cowley (left), postdoctoral student Victoria Pritchard, and graduate student Patrick Shirey, look for Rio Grande silvery minnow and other native species on the San Antonio river-side drain in the Socorro Division of the Middle Rio Grande Conservancy District, New Mexico. Photo by Rossana Sallenave, May 2003.



New Mexico State University student Jared Lujan monitors groundwater in the Middle Rio Grande region of New Mexico.

Evapotranspiration (ET) Study of the Middle Rio Grande

A five-year study of evapotranspiration in the Middle Rio Grande region of New Mexico will soon be completed. Funded by the U.S. Bureau of Reclamation, the study deals with one of the larger components of the hydrologic cycle - riparian evapotranspiration. Reliable monitoring of the Rio Grande requires reasonable estimations of natural riparian instream flow losses and evapotranspiration rates of the major riparian vegetation. This study identifies and evaluates the water consumptive use of riparian vegetation, especially saltcedar, cottonwood, Russian olive, and saltgrass.



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