



USDA-CSREES 2007 National Water Quality Conference

[Designing Water Markets in the Rio Grande Basin](#)

Managing drought in agriculture has taken on growing importance as population growth and environmental concerns place increasing pressures on agricultural water use. One alternative for agricultural water resource management in areas of recurrent drought is allocation through market mechanisms. In this research, we present a framework for designing a water market that takes into account both irrigator preferences regarding market transfer mechanisms as well as the particular circumstances of an irrigation district. As a case study, we present the design of a water market for the Elephant Butte Irrigation District (EBID) in the Rio Grande Basin of New Mexico. The issues that EBID must consider in designing a water market are common to many districts and include: the emergence of new water demands, particularly from housing developments, increasing environmental pressures, and adjudication and duty of water uncertainties. The goal of the water market is to ensure a balance between agricultural and urban demands while complying with current New Mexico water law and new regulations emanating from the Office of the State Engineer. Issues that are explored in the research include price setting vs. private negotiation, the impact of the water market on conservation practices and crop productivity, and how best to ensure sufficient supplies for agriculture while meeting increasing demands from other sectors. Results provide a rubric for designing water markets in areas where conflicting priorities are an issue.

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