

for irrigation. Under New Mexico law, all surface water and ground water belong to the public and are subject to State appropriation for beneficial use. In part of the study unit in New Mexico, three designated ground-water basins have been declared by the State; within these basins, a permit is required for any water used.

MAJOR WATER-QUALITY ISSUES

The following water-quality issues have been identified, in conjunction with the Southern High Plains liaison committee, as high-priority regional issues of concern to State and local water-resource managers:

- Introduction of nitrate and pesticides to playa lakes and ground water from agricultural cultivation practices.
- Introduction of nitrate, chloride, and metals to playa lakes and ground water from dairies and cattle feedlots.
- Introduction of volatile organic compounds, chloride, and metals to playa lakes and ground water from petroleum exploration and production activities.
- Introduction of nitrates, metals, and pesticides to playa lakes and ground water from urban storm-water runoff and treated-sewage wastewater effluent.
- Quantification of the areal distribution of recharge rates and determination of the age of recharged water throughout the study unit.
- Quantification of the effects of best management practices on water quality.

COMMUNICATION AND COORDINATION

Communication and coordination between the USGS and water-management or other related scientific organizations are critical components of the NAWQA program. Study-unit liaison committees have proven highly effective in this process and consist of representatives from Federal, State, and local agencies; universities; and those in the private sector who have water-resource responsibilities.

Specific activities of each liaison committee include (1) exchange of information on and prioritization of water-quality issues of regional and local interest; (2) identification of sources of water-quality data and other information—for example, land use, demographics, soils, land management practices, and pesticide use; (3) assistance in design and scope of project elements; and (4) review of project planning activities, findings, and interpretations, including reports. Information about technical reports and hydrologic data related to the NAWQA program can be obtained from:

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 Southern High Plains NAWQA study
 U.S. Geological Survey
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