

APPENDIX C

WATER RIGHT ISSUES ASSOCIATED WITH THE DEVELOPMENT OF A PROJECT TO REDUCE SEEPAGE LOSSES FROM THE ARCH HURLEY CONSERVANCY DISTRICT CANALS AND TO EXPORT A PART OF THE SAVED WATER OUTSIDE THE CANADIAN RIVER STREAM SYSTEM

by

Eluid L. Martinez
Water Resources Management Consultants LLC

PREFACE

The Tucumcari Project of the Arch Hurley Conservancy District is a U.S. Bureau of Reclamation project (Reclamation). Seepage losses from Project canals and laterals are excessive resulting in losses that typically exceed one-half of the annual releases from Conchas Reservoir on the Canadian River. The U.S. Bureau of Reclamation has evinced an interest in investigating the possibility of salvaging some of the water now lost to leakage from canals in the Arch Hurley Conservancy District and transporting a part of the saved water to the Pecos River basin for use in that watershed to address water supply issues in that basin. These two concepts were embodied in US Senate Bill 1071 of the first session of the 108th Congress. The authorizing section of SB 1071 reads:

- (1) conduct a study to determine the feasibility of implementing a water conservation project that will minimize water losses from the conveyance works of the Arch Hurley Conservancy District;
- (2) consider the options for utilizing any saved water made available from the conservation project including the conveyance of such water, in accordance

with State law, to the Pecos River basin to address water supply issues in that basin; and

- (3) assess the impact the conservation project could have on local water supply in and around the Arch Hurley Conservancy District and any appropriate mitigation that may be necessary if the project is implemented.

In June 2004, Reclamation entered into a contract with the New Mexico Water Resources Research Institute for Phase I of a two phase pre-assessment study designed to address some of the elements in SB 1071. Phase I of Reclamation's investigation of these issues has been directed at the feasibility of significantly reducing canal losses and the associated costs Phase II will be designed to identify potential effect of canal lining on local groundwater supplies, on alternate pipe-line routes, and on the costs associated with the conveyance of some of the saved water to the Pecos River system.

THE PRINCIPAL WATER RIGHT QUESTIONS

SB 1071 notes that any conveyance of Tucumcari Project to the Pecos River basin must be "in accordance with State law" and expresses the concern for the effects of "a conservation project" on the local surface and groundwater supply. Both of these concerns raise a number of water-right issues associated with the two phases of the proposed project. In addition there are policy issues within the purview of Reclamation and of the Board of Directors of the Arch Hurley Conservancy District (the Board). These water-right and policy issues include the following:

1. Can the Board of Directors of the Arch Hurley Conservancy District (the Board) adopt rules and regulations that set conditions and allow the export of Tucumcari Project water for use outside of the District

boundaries that is in excess of Project irrigation demands and that can be saved through a conservation program?

2. If the Board approves water export, can an individual District irrigator, who does not receive a full-supply, seek a remedy in the courts?
3. Can Reclamation adopt policies that allow Tukumcari Project water to be exported for use outside the Project boundaries?
4. Under water permits issued by the New Mexico State Engineer to Reclamation for Tukumcari Project use, can a part of this water saved through a conservation program be used for beneficial purposes outside the Project boundaries and outside the Canadian River Basin?
5. Can aggrieved parties, with claims of interest or impairment (such as the City of Tukumcari), protest an action by the New Mexico State Engineer to approve an application to export water, saved or salvaged as the result of a leakage reduction project, to another basin?
6. Do the Canadian River Compact and related court decrees prevent the exportation of Canadian River water to a basin outside of the Canadian River system?
7. Are there endangered species issues that could prevent the transport of water outside of the Canadian River Basin?

ASSESSMENT OF POLICY AND WATER-RIGHT QUESTIONS

The answer to these questions is primarily dependent on the policies of the Board of Directors of the Arch Hurley Conservancy District (the Board); on contracts, policies and statutory constraints of Reclamation; on permit conditions imposed by the New Mexico State Engineer (SE) for water use in the Tukumcari Project; on constraints, if any, imposed by the Canadian River Compact and the related United States Supreme Court's amended decree in Oklahoma and Texas v. New Mexico, Original No. 109; and on Canadian River wildlife habitat and endangered species issues.

Conservancy Board Policies

Historically, during some irrigation seasons, delivery of water to Project lands within the District has been less than the irrigation demand of the irrigated lands. Any Pecos River system exportation-project would require that the Board of Directors of the District and District water-users agree to forgo the use of "excess saved water" after meeting Tukumcari Project irrigation demands. The Board and Reclamation would have to agree on the definition of the term "excess saved water" and on operational means of computing the amount available for export. Phase II will include guidance on the definition of the term "excess saved water". It appears that exportation of "excess saved water" would only be viable during those years of full, or anticipated near-full, irrigation water supply. Any irrigator that does not receive a full water-supply, because of an exportation project, could seek legal remedies notwithstanding the Board's approval of the exportation project. The Board could also decide to adopt policies to store and carry over in Conchas Reservoir, any "excess saved water" for use in future irrigation years.

Reclamation Contracts, Policies and Statutory Constraints

Policy and statutory issues related to the ownership interest by the Bureau of Reclamation in water rights that are permitted by the State Engineer to the Bureau for the Tucumcari Project and the ownership interest in the physical works of the Tucumcari Project held by Reclamation will have a major bearing on any project to export excess salvaged waters outside the district boundaries. Reclamation also has several contracts with the District related to debt service and to the purpose and place of use of water released from Conchas Reservoir into the District's conveyance system.

Perhaps the earliest of these contracts between Reclamation and the District is dated December 28, 1938. The contract lists the uses of Project water as domestic, irrigation, municipal uses, or "otherwise". The "otherwise" phrase could have referred to a hydro-electric plant that was under consideration at that time. In this contract Reclamation claimed and reserved for the United States, for the use of the District, "all of the increment, waste, seepage, and return flow water which may result from the construction of the Project." It is clear from the language of this contract that Reclamation holds, for the District, the rights to the surface supply and to any seepage related groundwater that is derived directly from the conveyance and use of the Project's surface supply.

This early contract authorizes the District, with the approval of the Secretary of Interior, to use Project water "within or without" of the boundaries of the District for use other than irrigation "not detrimental to the primary uses" specified in the contract. While Reclamation approval is required and subject to the approval of the New Mexico State Engineer, Project water could be exported for use outside the District and apparently

outside the Canadian River Basin, if exportation is “not detrimental” to the primary Project uses.

Reclamation’s involvement and role in any exportation project would depend on existing Bureau policy and on any constraints imposed by the statutory language that authorized the Tukumcari Project. An act of Congress authorizing an exportation project will be needed to permit a project to go forward and to allow Reclamation involvement.

Water Law Administration and State Engineer Regulations and Policies

On July 13, 1956, the New Mexico State Engineer issued license No. 2305, with a priority date of December 5, 1938, to the Bureau of Reclamation to appropriate 300,000 acre-feet of water per annum from the Canadian River and tributaries by means of direct diversion or by storage in the reservoir impounded by Conchas Dam for the purpose of irrigating 42,231.7 acres of land within the Arch Hurley Conservancy District (see Attachment 1). In the application for permit number 2305:

- Irrigation is the only listed use although the permit allows the storage of 7.1 acre-feet of water per acre for irrigation and domestic purposes
- The permit requests a period of use from March to November each year
- The maximum rate of diversion from Conchas Reservoir into the Conchas Canal is set at 700 cfs

It is important to note that Permit 2305 appears to limit the use of water to irrigation purposes only, while the December 28, 1938 Reclamation contract with the District expands the type of use allowed. This issue should be clarified with the Office of the State Engineer before proceeding with a seepage reduction program.

The State Engineer's water-right on line, data-base now lists Reclamation's permit as SP 02305. An explanation of the "SP" designation by the State Engineer Office was verbally obtained from a member of the SEO water-rights division. "SP" designation indicates that it is a surface water permit only, and the 300,000 acre-feet per annum permit is limited to surface rights. However, SEO position is that the District may apply to the State Engineer for supplemental groundwater. The priority date that would be assigned a supplement well was not offered. Also variably obtained from the SEO staff was the ruling that individual farms may not apply for a supplemental well, but that the District may. Because of Reclamation's December 1938 contract with the District where Reclamation reserves its claim to Project related groundwater, the authority of Reclamation over groundwater that may rely on irrigation return-flows and canal seepage should be clarified before the District makes an application for supplemental wells to the State Engineer.

The Tucumcari Project is not the only holder of rights to divert water from Conchas Reservoir. The New Mexico State Parks Commission holds the right for the irrigation of a 62.5 acre golf course at Conchas Lake by means of a pump. These irrigated lands at the lake are a part of the District's 42,231.7 acres and as such receive the same annual allocation of water as do other Project lands. The Corps of Engineers has some limited groundwater rights at the lake, too.

There is just one irrigation water-right on the Canadian from Conchas Reservoir with a priority date earlier than that of the District. The Bell Ranch has a priority date of May 1, 1937 for the diversion of 2,500 acre-feet annually via an 18 inch outlet pipe from

Conchas Reservoir. The irrigated lands lie on the north side of the Canadian River. The diversion rate is limited to 25 cfs.

The New Mexico State Engineer will require the filing of a new application for a change in purpose and place of use for any water committed to an exportation project. That application would be subject to protests from water users within the district and by other affected parties that are concerned with water conservation and public welfare issues. If protested, the application process could be expensive and time consuming to the applicant. Under New Mexico water law, any action by the State Engineer is subject to appeal through the state courts up to the New Mexico Supreme Court.

Individuals and entities with existing permitted groundwater diversions in the area of District canals, laterals and irrigated lands may be adversely impacted by a water conservation project where leakage from the Project irrigation system is significantly reduced. The groundwater supply to wells in the Tukumcari area has included seepage losses from the District's canals since the inception of the Project (see State Engineer Technical Report 30). These groundwater users could protest an application to the State Engineer for the exportation of excess salvaged water. If groundwater diversions by the City of Tukumcari have been, in part, dependent on canal seepage losses, the State Engineer might look at the impact on the public welfare in acting upon any exportation application that would reduce the groundwater supply available to City and other area wells. This question deserves further technical evaluation. It is noted that Phase II of the proposed NMWRRI study will include an assessment of the impact of a leakage reduction program on area groundwater supplies.

A related State water rights issue is whether the State Engineer will recognize the savings or salvage of carriage loss-waters as a” water right” that is subject to a change in place and purpose of use. The State Engineer has recognized the need for carriage loss-water to enable the exercise of a “water right”, but he may not considered any saved or salvaged water as having the status of a” water right”. This issue needs legal analysis before proceeding with additional technical studies for an exportation project.

Canadian River Compact and Related Supreme Court Decisions

Paragraphs 1 and 2 of the United States Supreme Court’s decree, as modified, in Oklahoma and Texas v. New Mexico, Original No. 109 (see Attachment 2) read as follows:

1. Under article iv (a) of the Canadian River Compact (Compact), New Mexico is permitted free and unrestricted use of the waters of the Canadian River and its tributaries in New Mexico above Conchas dam, such use to be made above or at Conchas dam, including diversions for use on the Tucumcari Project and the Bell Ranch and the on-project storage of return flow or operational waste from those two projects so long as the recaptured water does not include the mainstream or tributary flows of the Canadian River provided that transfers of water rights of water rights from above Conchas Dam to locations below Conchas Dam shall be subject to the conservation storage limitation of Compact article iv (b). Nothing in this paragraph shall be deemed to determine whether or not the place of use of water rights may be transferred to locations outside the Canadian River Basin in New Mexico.
2. Under Compact article iv (b), New Mexico is limited to storage of no more than 200,000 acre-feet of the waters of the Canadian River and its tributaries, regardless of point of origin, at any time in reservoirs in the Canadian River Basin in New Mexico below Conchas Dam for any beneficial use, exclusive of water stored for the exempt purposes specified in Compact article ii (d) and on-project

storage of irrigation return flows or operational waste on the Tucumcari Project and Bell Ranch as provided for in Paragraph 1 of this decree.

A discussion on potential constraints imposed by the Canadian River Compact (see Attachment 3) on the exportation of Project water from the Canadian River Basin is presented in a report to the Arch Hurley Conservancy District titled: Analysis of Diversion of Captured Carriage Loss from Conchas Lake to the Pecos River, dated February 2002 and known as the DuMars report. In summary, the DuMars report concludes that an exportation project could be considered to be consistent with the purposes of the compacts (both the Canadian River and Pecos River compacts) and that an seepage reduction and exportation project would constitute conservation of the waters of the Canadian River and would facilitate the more efficient use of the available water supply (DuMars report, page 7). This author concurs with the general conclusions in the DuMars report that the Canadian River Compact does not appear to preclude a conservation and exportation project.

There are Compact issues that will need further analysis before proceeding with additional technical studies for a canal leakage reduction - exportation project. The amended decree language noted above raises some issues that should be addressed. The language of Paragraph 1 of the decree appears to allow the storage of salvaged or conserved operational waste-waters (i.e. seepage losses) at Conchas Dam provided that the seepage salvaged is derived entirely from Project releases at Conchas Dam. This part of the decree does not appear to include credit for water in the District canals where the source of the water is derived from other than Project releases. This author interprets the term “on-project storage” to include storage in the reservoir behind Conchas Dam, the

storage source for the Tucumcari Project. An exportation project where the point of diversion point is at or above Conchas Dam would not appear to be precluded by the Canadian River Compact or the amended decree. This issue merits legal analysis before any additional technical studies are funded for water conservation - exportation project..

Another issue raised by the amended decree is that language of the decree where the Court states that the decree does not take a position on whether or not the place of use of water rights may be transferred to locations outside the Canadian River Basin in New Mexico. This question can be resolved by State Engineer and Congressional actions. It would appear that the Congress will not be constrained in authorizing an exportation project if a State water-right permit is granted which authorizes a change in place and purpose of use of a part of any saved water for an exportation project outside the Canadian River Basin.

Wildlife Habitat and Endangered Species Questions

The construction of the physical works of a significant canal leakage-reduction program and a water exportation project will disrupt the terrain along the canal and construction route. Existing wet lands along unlined District canals will be affected by canal improvements to reduce seepage losses. Tucumcari Lake is an area wet-land that may be subject to drying if a seepage reduction program is initiated. Further technical study is warranted on the issue of wildlife habitat reduction.

The New Mexico Department of Game and Fish 2004 biennial review-final draft recommendation, dated August 2004 (see Attachment 4) for threatened and endangered species does not include any new fish listings to the Department's 2002 biennial review.

Fish listed as endangered or threatened in the draft 2004 review within the Canadian River Basin and the Pecos River Basin are those noted in the DuMars report exhibit 10 (see Attachment 5). No listed threatened or endangered species are noted along the course of the District's canal system. There are no known endangered species below Conchas Reservoir along the Canadian River above Ute Dam that might be affected by an exportation project.

As a consequence of a seepage reduction program and exportation of a part of any saved water, the District's canals may not return appreciable seepage losses and irrigation return flows to the Canadian River. Potential impact of a seepage reduction effort on habitat and endangered species should be considered. The Bureau of Reclamation's involvement in an exportation project will require a NEPA study that will address potential affects of the leakage reduction - exportation project on any endangered species in or out of the Canadian River Basin. The reader is referred to the DuMars report (pages 10-15) for a more comprehensive discussion on the issue of endangered species.

CONCLUSIONS

There are legal and policy issues related to the exportation of a part of any salvaged or saved water made available as a part of a canal leakage reduction program. The Board of the Arch Hurley Conservancy District must endorse the concept of such a project. After that, most of the questions involved will be resolved, in time, by favorable action by the New Mexico State Engineer and by Congressional authorization of a seepage reduction – exportation project. There are a few issues that merit further legal review before a full-scale feasibility study is under taken. These are:

1. Do the Canadian River Compact or the amended Supreme Court decree, preclude an outside the Canadian River Basin exportation project where the point of diversion from the Canadian River system is at or above Conchas Dam?
2. Will the New Mexico State Engineer recognized saved or salvaged canal leakage water as having the status of a "water right" such that water can be diverted from Conchas Reservoir and used for beneficial purposes in the Pecos River Basin?
3. Can individual farmers who receive irrigation water from the District apply to the New Mexico State Engineer for a supplemental well permit? Does Reclamation's December 1938 contract with the District, where Reclamation reserves its claim to Project related groundwater, have the authority to object to a request for a supplemental well if the groundwater involved is derived from irrigation return-flows and canal seepage? Should the State Engineer obtain Reclamation or District approval before acting on an individual request for a supplemental well?