

The Ojinaga Valley: at the Confluence of the Lower Río Conchos and the Río Bravo

ENGLISH EXECUTIVE SUMMARY



Mural of the confluence of the rivers. Photo: Gerardo Jiménez

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ENVIRONMENTAL DEFENSE

finding the ways that work

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The primary purpose of the report is to provide information about the management of water in the lower Río Conchos basin in Chihuahua, primarily in the Bajo Río Conchos irrigation district (DDR 090). The full report provides data regarding water availability, distribution and use and it examines the social, regulatory and binational context affecting water management in this region.

Because this is the last major water using area on the Conchos above its confluence with the Río Bravo/Río Grande, what happens here is often a determining factor in how much water reaches the Río Grande. As far as Environmental Defense can determine, this is one of the first published reports on irrigation trends in this critical portion of the basin.

The Bajo Río Conchos irrigation district lies near the city of Ojinaga, Chihuahua. Farmers use surface water from the upstream Luis León Reservoir (also known as El Granero) and local groundwater for irrigation of alfalfa, pecans and a few others crops. A persistent drought and reduced flow from dams further upstream on the Conchos have combined to significantly reduce irrigated acreage over the last few years. In addition, farmers that previously grew corn, cotton and wheat have converted to alfalfa or other pasture grasses. The alfalfa is primarily used locally as beef cattle feed, though some is exported to dairies in other areas of Chihuahua.



Figure 1. Luis León (El Granero) reservoir, 2002 (© David Lauer)

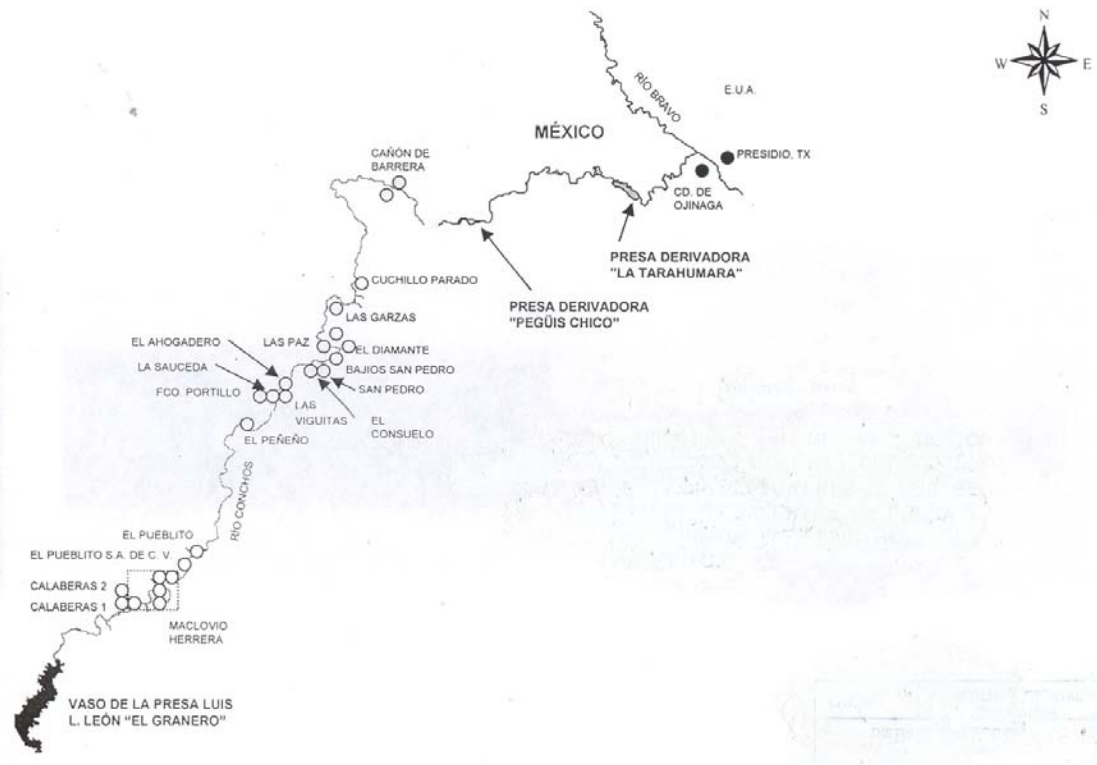


Figure 2. General layout of lower Río Conchos basin¹.

Farming in the Bajo Río Conchos has gone through many transitions, from early native American agriculture to early 18th century settlements to the present day system of reservoir releases, canals and drains. The Luis León dam was one of the last to be built on the Conchos. Completed in 1968, it is designed for both flood control and irrigation water supply. It has a capacity of 850 Mm³, with 500 Mm³ allocated for flood control.

While the Bajo Río Conchos district reportedly has an irrigable surface area of over 10,000 hectares, during the last 20 years the maximum cultivated acreage was about 7050 hectares (1986). In 2002, only about 2700 hectares were irrigated (some with groundwater). Annual surface water used for irrigation in the District has been on the order of 80 to 120 Mm³ over the last decade.

Under old surface water rights concessions, irrigation also occurs between the reservoir and the irrigation district. Though irrigation use in this stretch has not been well quantified, it appears to be on the order of 30 to 50 Mm³.

The decline in water availability, other factors undermining the economic viability of farming in this area and the availability of better-paying jobs north of the border have

¹ The Cañon de Peguis is located in the "Cañon de Barrera" area.

led to significant land fallowing and out-migration. While there is a small water rights trading market within the district, it is not a situation where big growers have bought up farms to consolidate large irrigation operations. In fact, the vast majority of the farms in the District are less than 20 hectares, with 8 to 10 hectares being the median size.

The Bajo Río Conchos aquifer has been tapped for both municipal purposes and, more recently, for irrigation. Available data indicate that the aquifer is recharged on the order of 90 Mm³/year, while use averages about 37 Mm³/year. Urban use accounts for about a quarter of aquifer pumping, with irrigation accounting for the remainder.

While there is some potential for canal lining and other irrigation water conservation in the Bajo Río Conchos irrigation district, it might be more productive to focus on the following:

- Assisting local farmers in switching to higher-valued, but less water intensive crops, including those that are suitable for export from the local area (this will involve technical assistance, as well as assistance on the distribution and market access front); and
- Recognizing and placing more emphasis on the economic value of the Conchos as a resource for eco-tourism, including El Granero reservoir, the river canyons that lay between El Granero and the irrigation district (Peguis and Cuchillo Parado), and linking those areas to Mexico's Cañon Santa Elena reserve, as well as the complex of state and federal protected areas on the U.S. side of the border in the Big Bend region.



Cañon de Peguis. Photo: Gerardo Jiménez

Follow-up note: In 2004, Environmental Defense will be working with BioDesert, A.C. and local organizers to characterize the biological values and economic potential associated with protection of the Cañon de Peguis. We will also be collaborating on an analysis of a salt cedar plug that has developed in the middle of the river, just above the Presa Tarahumara (see map). This salt cedar plug, which has grown rapidly over the last decade, may have a significant adverse effect on the amount of Conchos flow that can reach the Río Bravo.

