

# River Restoration Activities in the Rio Grande Canalization Flood Control Project in the Lower Rio Grande, NM

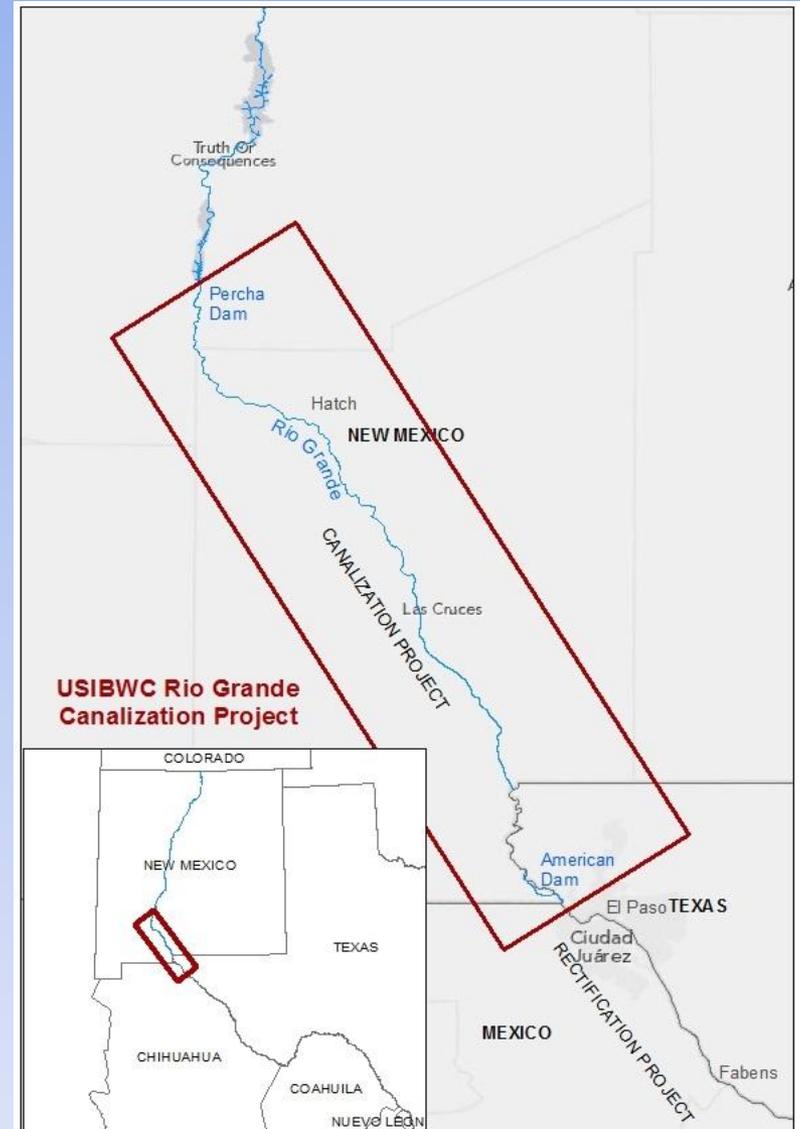


Elizabeth Verdecchia  
International Boundary and Water  
Commission, U.S. Section  
New Mexico Water Conference  
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# Rio Grande Canalization Flood Control Project

## Canalization Project authorized by Congress in 1936

- 105 miles from Percha Dam to American Dam
- Rectified river channel within a leveed floodway
- To facilitate deliveries under the 1906 Convention with Mexico and to control floods





**October 1938 - Canalization Project.  
Looking upstream on Rio Grande at Picacho Bridge  
(U.S. 80) near Las Cruces, New Mexico, prior to levee  
construction and channel stabilization.**

**August 1956 - Same scene after channel stabilization  
completion.**



**October 1942 - Same scene after levee construction  
and at start of channel stabilization works.**



# Rio Grande Canalization Flood Control Project Record of Decision



## **Record of Decision (ROD) signed by Commissioner Ruth, June 4, 2009**

- 8-year stakeholder discussions
- Integrated Land Management Alternative selected
- 10-year Implementation period
- Retains multiple O&M measures currently conducted for water delivery, flood control, and channel maintenance
- Allows for increased flood containment capacity (FEMA levee accreditation)
- Implements several environmental restoration measures

# Record of Decision Environmental Measures

## Environmental improvements

- Grazing Leases discontinued
- 30 restoration sites (550 acres) targeting 12 riparian habitats
- Endangered Species Act liability
- Floodway vegetation management, including ~2,000 acres of No-Mow Zones
- Environmental Water Rights



# Stakeholder meetings

- ROD Implementation meetings regularly scheduled
- Participants include:
  - Irrigation districts
  - Local Elected Officials
  - Environmental Groups
  - Other federal agencies (USBR, USFWS)
  - USIBWC staff in Engineering, Environmental, and Operations divisions

# Implementation of Restoration Sites

## Interagency Agreement with USFWS

- 5 sites 2011-2013
  - 300 acres saltcedar removal
  - 4,600 native tree planted
- 4 new sites 2013-2016
  - About 25 acres of saltcedar removed

07.06.20

## Restoration Signs



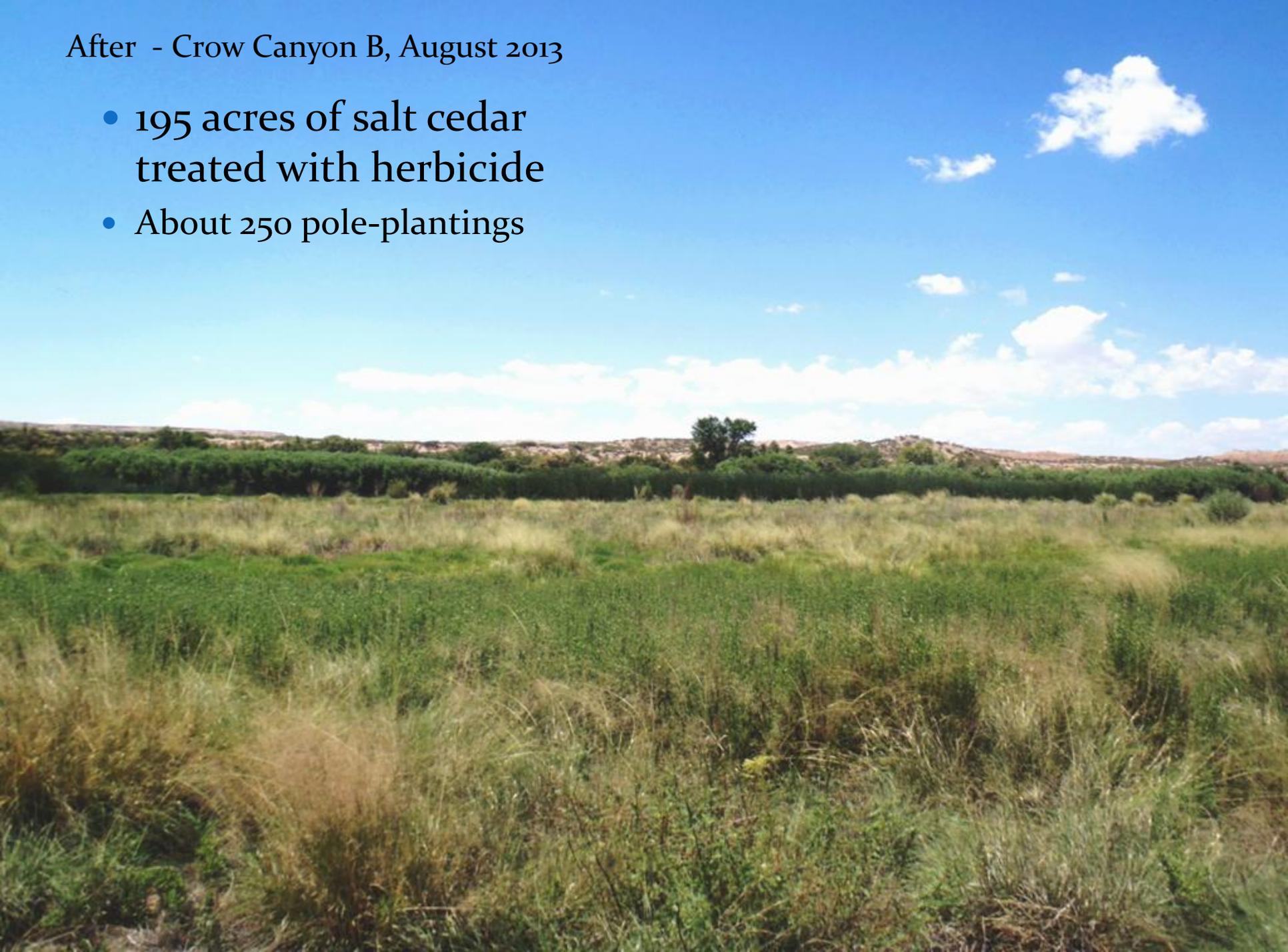
# Crow Canyon Restoration Sites

Before - Crow Canyon B, summer 2011



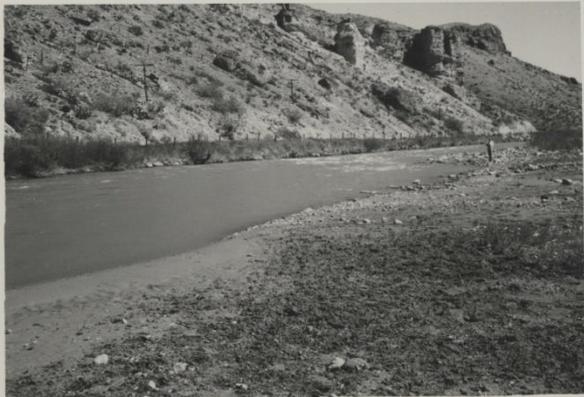
After - Crow Canyon B, August 2013

- 195 acres of salt cedar treated with herbicide
- About 250 pole-plantings





# Broad Canyon Arroyo Site



LOOKING DOWNSTREAM AT RAPIDS IN RIVER AT MOUTH  
OF BROAD CANYON, APRIL 25, 1940



08.17.2011

# Broad Canyon Arroyo Site

- 20 acres of salt cedar treated by excavator in 2012
- 8.5 acres left where YBC was observed



05.04.2012



- Prescribed burns for debris piles conducted January 2013



01.09.2013

February 2013



- 2,500 pole-plantings

# Broad Canyon Arroyo Site

August 2013



- 30 acres salt cedar treated with stump cut herbicide treatment
- 1,500 pole-plantings

# Leasburg Extension Lateral



- 70 acres salt cedar treated with stump cut herbicide treatment
- 500 pole-plantings

## Mesilla East



# Groundwater Monitoring Wells



- 55 wells installed at 21 sites within the floodplain in 2013-2014
- Measure variation during drought and irrigation releases

# Environmental Water Transaction Program

- USIBWC is establishing a program to obtain water rights
  - Offset depletions caused by increased vegetation
  - Supplemental irrigation
  - Environmental flows (or simulate overbank conditions)
- Public-private partnership
  - National Fish and Wildlife Foundation (NFWF), NM Audubon, and Elephant Butte Irrigation District (EBID)
  - Develop framework for purchasing water rights
- USIBWC plans to buy a minimum of 475 acres of water rights to meet requirements in the ROD.
  - Willing sellers
  - Pay fair market value

# Future Tasks

A wide river flows through a landscape with green vegetation and mountains in the background under a blue sky. The river is the central focus, with lush green bushes in the foreground on the left and a dense line of trees on the opposite bank. In the distance, a range of mountains is visible under a clear blue sky with some light clouds.

- Finalize River Management Plan and Channel Maintenance Plan
- Purchase Water Rights and begin supplemental irrigation
- Implement next restoration sites

# Website

[http://www.ibwc.gov/EMD/canalization\\_eis.html](http://www.ibwc.gov/EMD/canalization_eis.html)

# Contact

Elizabeth Verdecchia, Natural Resources Specialist  
915-832-4701, [elizabeth.verdecchia@ibwc.gov](mailto:elizabeth.verdecchia@ibwc.gov)

# QUESTIONS?