

River Restoration Activities in the Rio Grande Canalization Flood Control Project



Upper Rio Grande Citizens' Forum
Elizabeth Verdecchia
July 19, 2012

Rio Grande Canalization Flood Control Project

Canalization Project constructed in early 1940s

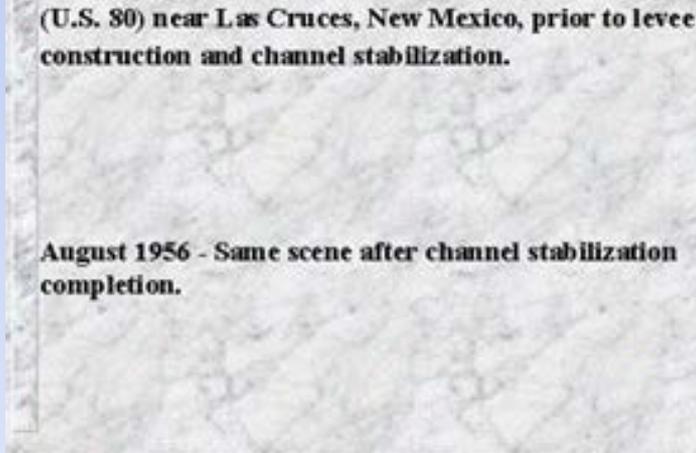
➤ ~ 105 miles
Percha Dam to American Dam
(rectified river channel within a leveed floodway)



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.



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



August 1956 - Same scene after channel stabilization completion.



Rio Grande Canalization Flood Control Project Record of Decision

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

- 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 improving a variety of aquatic and riparian habitats
- ESA liability (SWWF)
- Floodway vegetation management



Canalization Restoration Project Implementation

An aerial photograph showing a long, narrow canal or restoration project site. The canal is filled with water and has a series of wooden posts or markers along its length. A person is standing on the right bank, providing a sense of scale. The background shows a flat landscape with some vegetation and distant hills under a clear sky.

1. Implementation Plan Developed

- Soil and groundwater surveys
- Southwestern Willow Flycatcher and Yellow Billed Cuckoo surveys
- Intensive Cultural Resources surveys and Section 106 clearance
- Site Implementation Plans

2. Environmental Water Rights Framework

3. Conceptual Restoration Plan Land Acquisition

Canalization Restoration Project Implementation cont'd

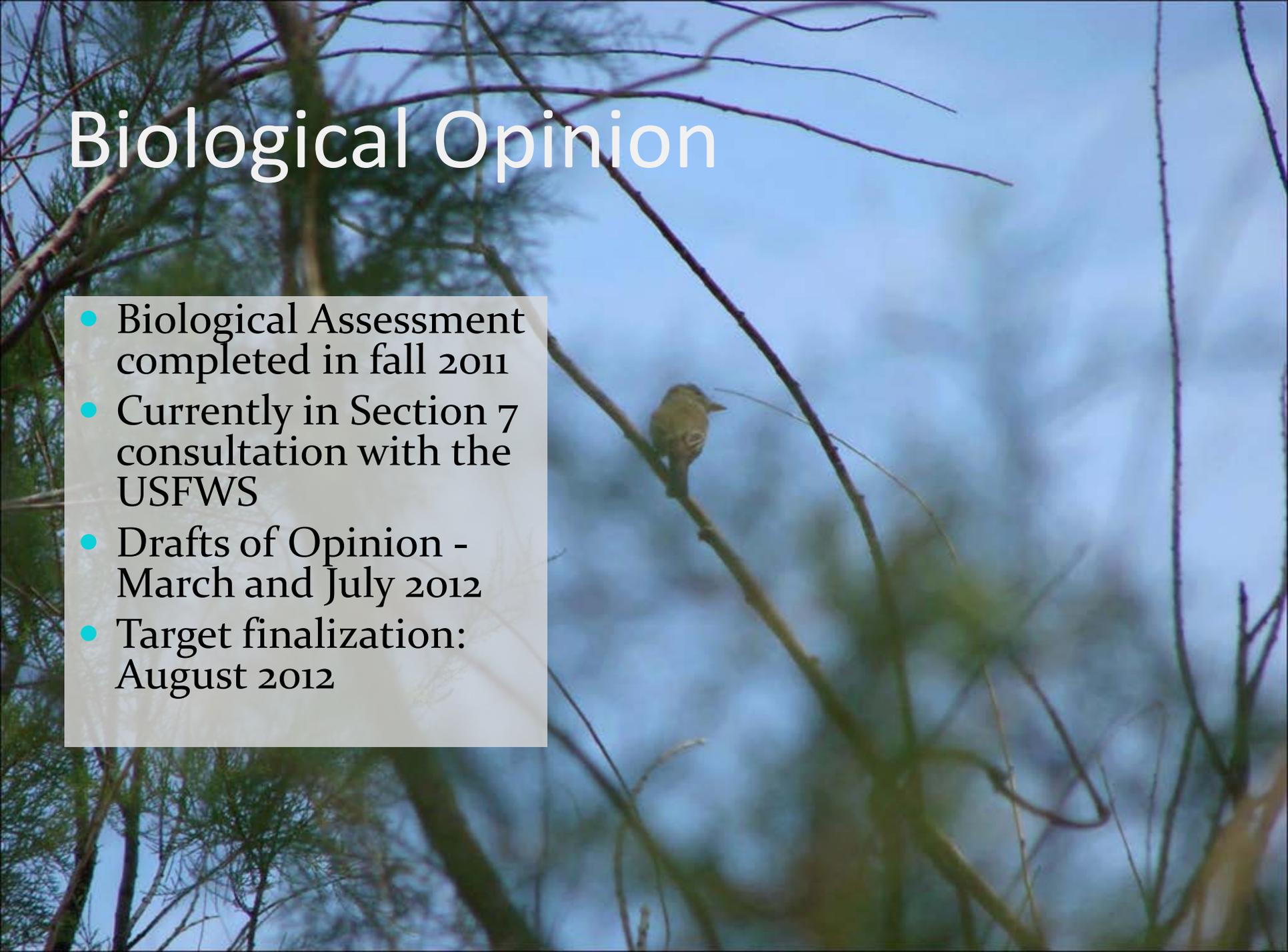
4. Biological Assessment and Section 7 Consultation
5. Pilot Project Implementation
6. Restoration signs purchased/installed
7. ROD Implementation meetings regularly scheduled

Revised Flycatcher Critical Habitat Designation

- Arizona Ecological Services FWS
- August 2011 Revision included 2,090 stream miles, incl. Canalization
- Current Draft Revision published July 12, 2012
- 902 miles being considered for exclusion, incl. Canalization
- **Comments taken through September 10, 2012**



Biological Opinion

A small green bird is perched on a thin, dark branch that runs diagonally across the frame. The background is a clear, light blue sky, with other branches and foliage visible in the foreground and background, some of which are out of focus. The overall scene is a natural, outdoor setting.

- Biological Assessment completed in fall 2011
- Currently in Section 7 consultation with the USFWS
- Drafts of Opinion - March and July 2012
- Target finalization: August 2012

Environmental Water Rights Program

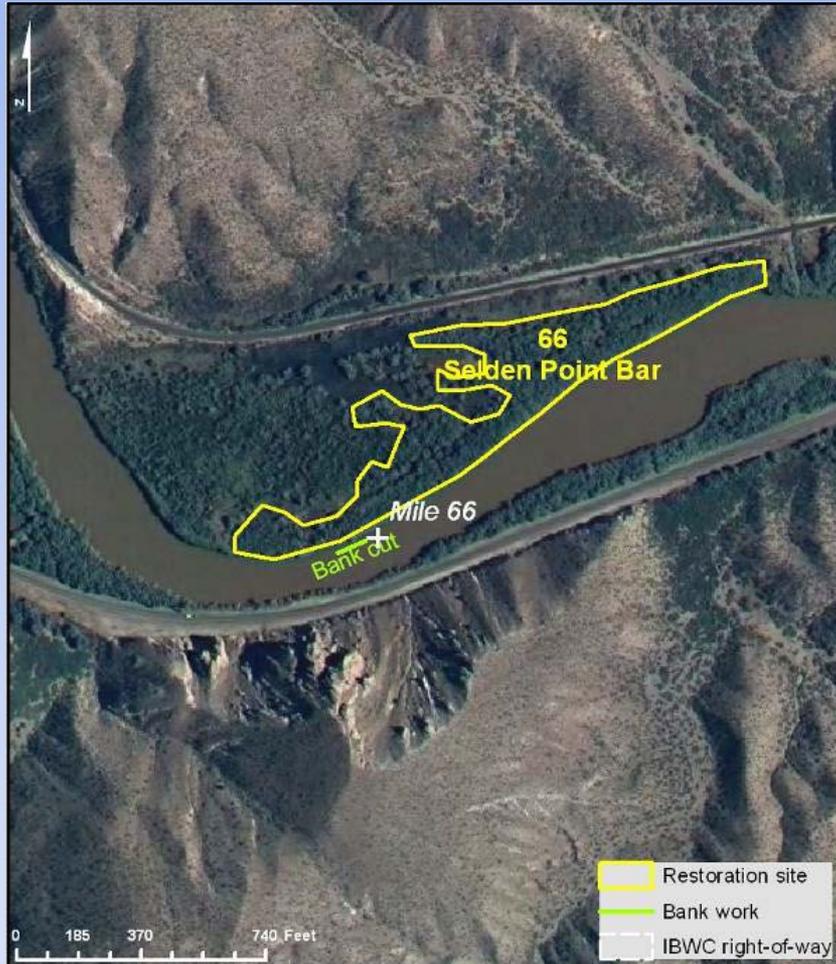


- MOA with USFWS
 - National Fish and Wildlife Foundation (NFWF)
 - Public-private partnership
 - NFWF working with NM Audubon
 - Develop framework for water transactions
 - Need approval and coordination with Bureau of Reclamation, Elephant Butte Irrigation District and El Paso County Water Improvement District #1

FLO-2D Model Update

- Use science to drive channel maintenance decisions
 - Reduce fuel costs, personnel and disposal options, eliminate unnecessary biological impacts
- IBWC has a contract for a Water Budget Study
 - Update 1-D and 2-D models for Canalization
 - Channel conveyance, channel seepage, evaporation, stream groundwater interactions

Property Acquisition



- Seldon Point Bar 7.7 acres purchased in 2011
- Currently considering property in NM with groundwater rights

FWS Pilot Projects



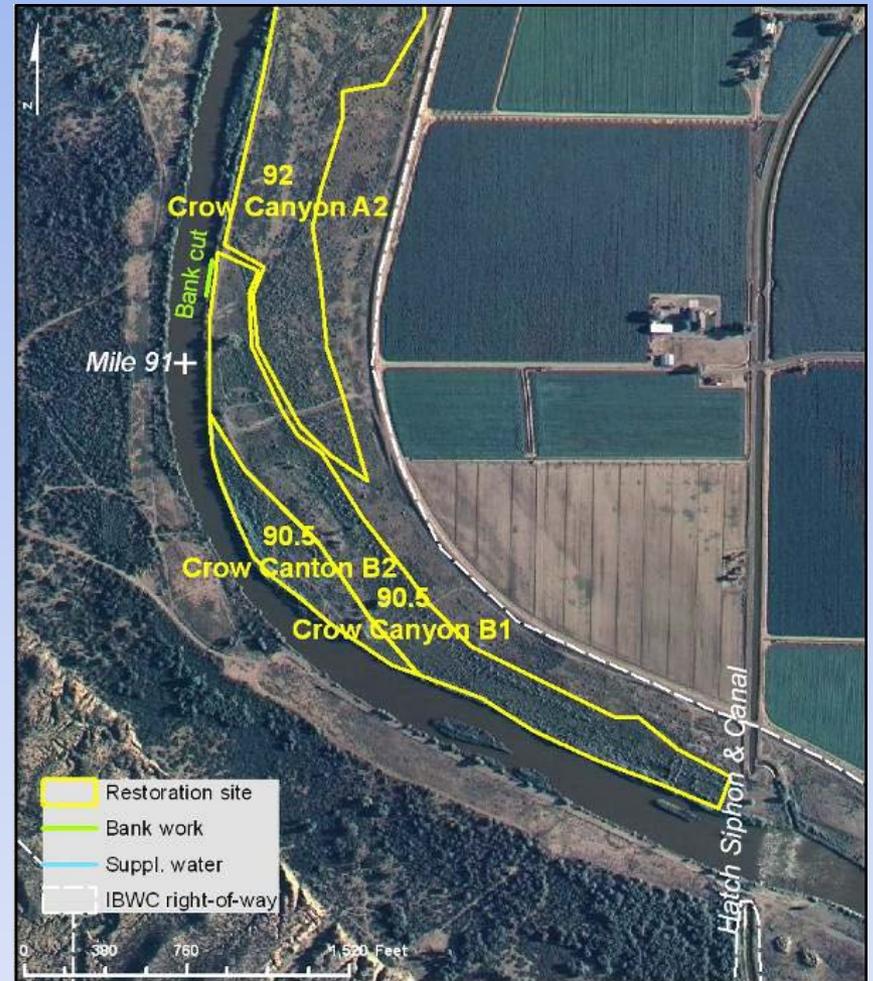
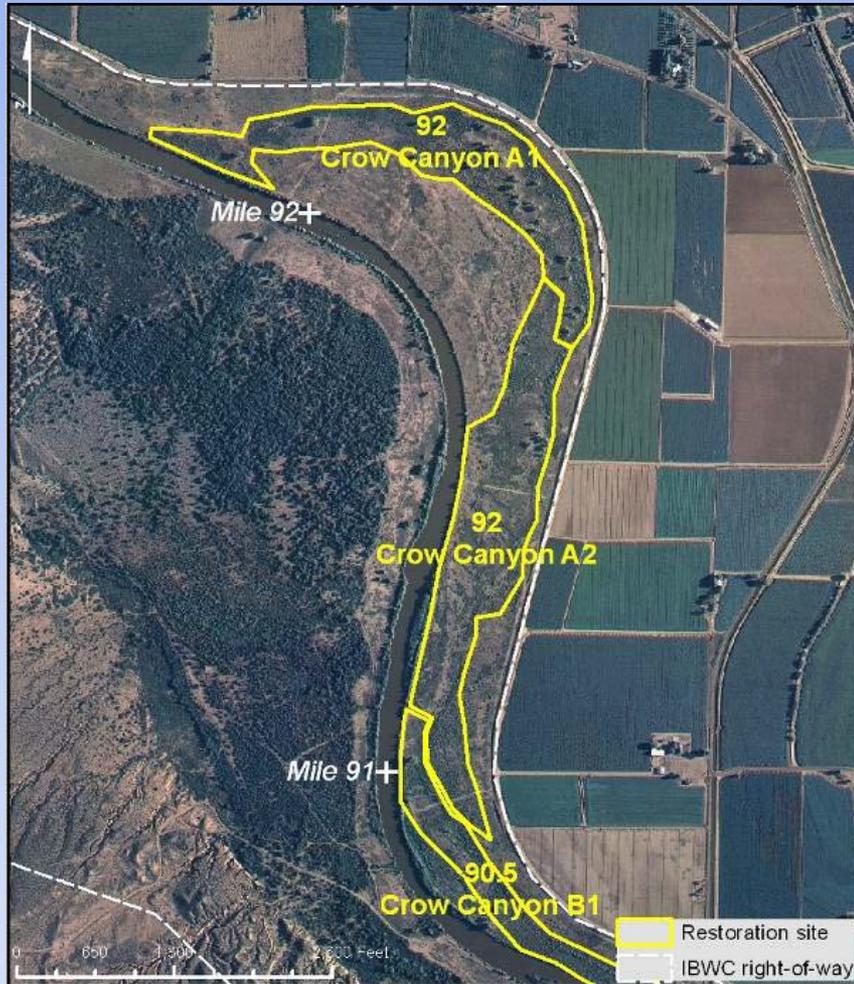
- MOA with USFWS (5-sites)
 - Crow Canyon A (RM 92)
 - Crow Canyon B (RM 90.5)
 - Broad Canyon Arroyo
 - Leasburg Extension Lateral Wasteway 8 (RM 47.8)
 - Mesilla East (RM 41)

07.06.20

Restoration Signs



Crow Canyon Sites



Crow Canyon



- 195 acres of salt cedar treated with herbicide
- Pole-plantings:
 - 187 black willows
 - 40 cottonwoods



Crow Canyon



05/27/2012



- Native willows returning in now-mow areas



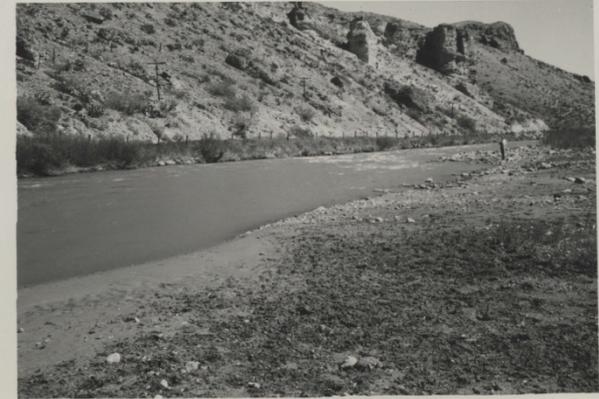
Broad Canyon Arroyo Site



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



Broad Canyon Arroyo Site



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

- Pole-plantings:
 - 274 coyote willows
 - 99 black willows
 - 25 cottonwoods
- Prescribed burns for debris piles



07.05.2012

Leasburg Lateral



- Expanded to 30 acres
- Pole-plantings:
 - 61 black willows
 - 39 cottonwoods
- 26 acres salt cedar treated with stump cut herbicide treatment



Mesilla East



- Expanded to 70 acres
- Pole-plantings:
 - 61 black willows
 - 39 cottonwoods
- 70 acres salt cedar treated with stump cut herbicide treatment



Flycatcher Surveys



- Bureau of Reclamation conducting 2012 surveys
- Territories are increasing since previous surveys
- IBWC's Biological Opinion requires annual surveys



Future Tasks

The background image shows a wide river with a sandy or silty bed. In the foreground on the left, there are tall, thin green reeds or grasses. The middle ground is filled with a dense line of green shrubs and trees. In the far distance, a range of blue mountains is visible under a clear, light blue sky.

- Define areas of no-mow zones
- Updated River Management Plan
- Flycatcher Management Plan
- Increase Signage
- Prioritize next restoration sites

Website

http://www.ibwc.gov/Organization/Environmental/canalization_eis.html

Contact

Elizabeth Verdecchia, Natural Resources Specialist
915-832-4701, elizabeth.verdecchia@ibwc.gov

QUESTIONS?

