



International Boundary and Water Commission United States Section



Lower Rio Grande Flood Control Project
Arroyo Colorado Post Flood Cleanup
June 22, 2011



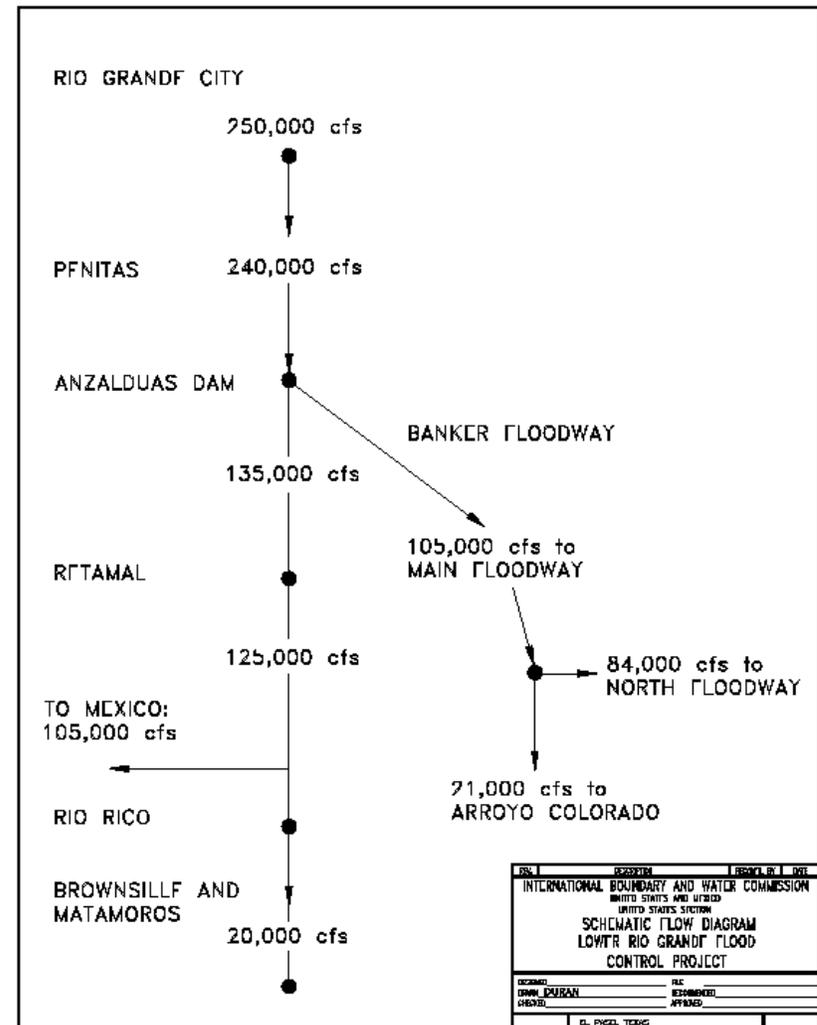
Schematic Flow Diagram Lower Rio Grande Valley

Mexico and the United States equally divide flood flows

The Arroyo Colorado is required to convey 21,000 cfs

During Hurricane Alex, on July 22, 2010, the Arroyo Colorado flow measured 5,460 cfs, with limited freeboard demonstrating the need to improve its hydraulic efficiency

Exhibit 2

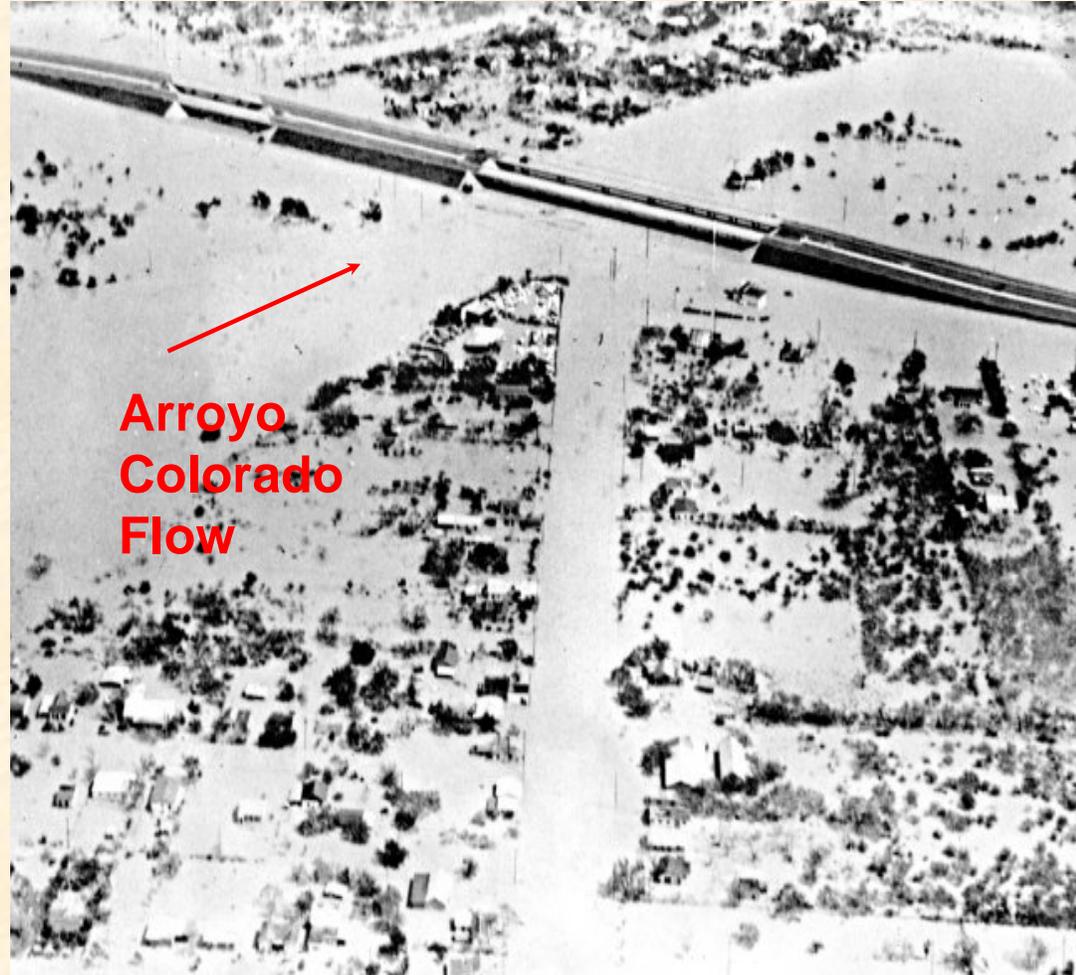




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Arroyo Colorado - History

- Hurricane Beulah
September 1967
flooded Harlingen
via the Arroyo
Colorado



Hwy 77 At Arroyo
Colorado



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Arroyo Colorado - History

- A weir failed causing 60,000 cfs to flow into the Arroyo Colorado



Flooding Harlingen,
Texas, 1967



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Arroyo Colorado - History

- A Divisor Dike was constructed in 1968 to ensure the arroyo will receive its design flow of 21,000 cfs during a major event



Divisor Dike, Hurricane Alex, Arroyo Colorado, Mercedes, Texas

Hurricane Alex / Tropical Depression #2 Impacts

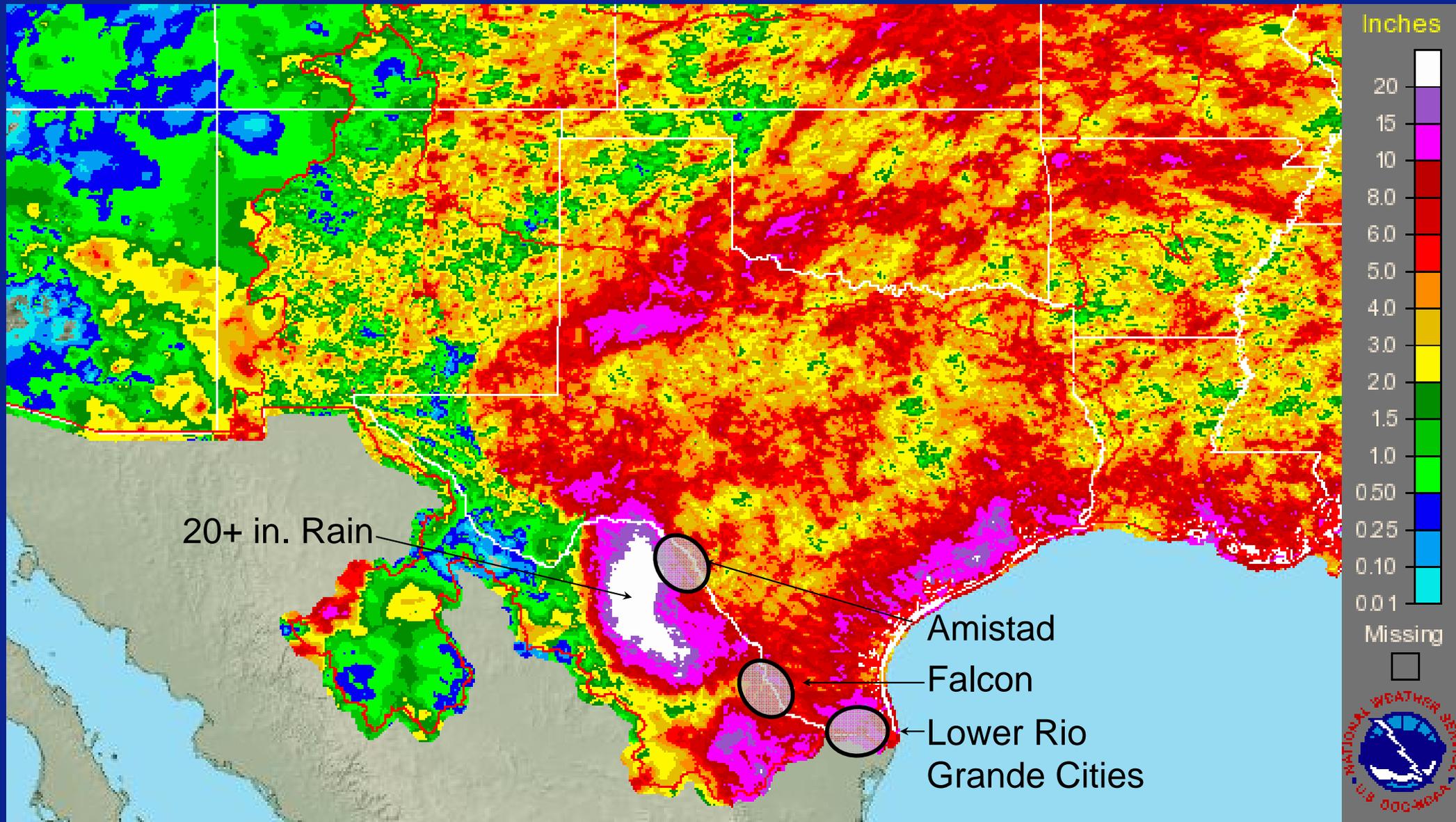
30-Day Rainfall Ending 24 July 2010

West Gulf RFC Ft Worth, TX

30-Day Observed Precipitation - Valid 7/24/2010 1200 UTC

Click on the image to zoom in

Click on "States" to zoom out





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Arroyo Colorado at McKelvy Park



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Arroyo Colorado @ Business 77



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Arroyo Colorado @ Business 77



- **SHORT TERM ACTIONS**
- **LONG TERM ACTIONS**



Arroyo Colorado - Post Flood Cleanup

Short Term Project: and Trash

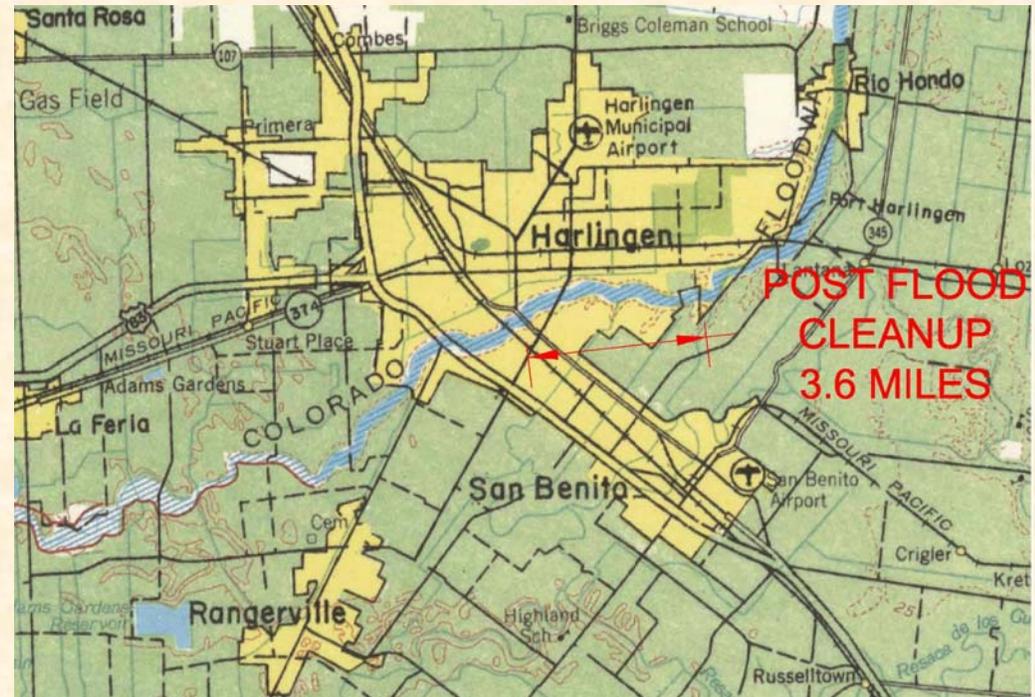


Dead Trees
April 21, 2011

Debris
Stockpiled
April 21, 2011



Remove Dead Trees



Arroyo Colorado Hwy 77 to FM 509
3.64 miles



Arroyo Colorado - Post Flood Cleanup

- USIBWC removed 15 truck loads of dead trees and debris below the 21,000 cfs flow line
- USIBWC notified land owners of the cleanup
- During the cleanup USIBWC had an onsite environmental monitor

Arroyo
Colorado
Photo taken
3-9-11



Dead Trees
to be
removed
Photo taken
3-9-11

Arroyo Colorado -
2011



Arroyo Colorado - Post Flood Cleanup

Arroyo Colorado Hwy 77 to FM 509

- Flows one month after Hurricane Alex
- Note trees within the flow
- Note brown fringe of dead trees within the arroyo



Arroyo Colorado Flow - August 15, 2010



Arroyo Colorado – Immediate and Long Term Project Schedule

Immediate Project

Remove Trash Dead Trees April 11, 2011 through July 15, 2011

Environmental Monitor Awarded: April 6, 2011 Expires: August 31, 2011

Long Term Project

Conduct Hydraulic Analysis April 2011- Dec. 2011

Consultant’s Preliminary Cross Sections under review by USIBWC June 2011

Research Alternatives Dec. 2011- June 2012

Redirect Flow

Restore Hydraulic efficiency

Coordinate with Resource Agencies June 2012 -

Environmental Documentation (NEPA Process) January 2013

2013

Construct Improvements

INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO



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