



# International Boundary and Water Commission United States Section





International Boundary and Water Commission  
United States Section

# Master Planning International Sub-Basin Initiative

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## USIBWC Mission

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*The International Boundary and Water Commission,  
United States and Mexico,  
is responsible for applying  
the boundary and water treaties  
between the two countries  
and settling differences  
that arise in their application.*





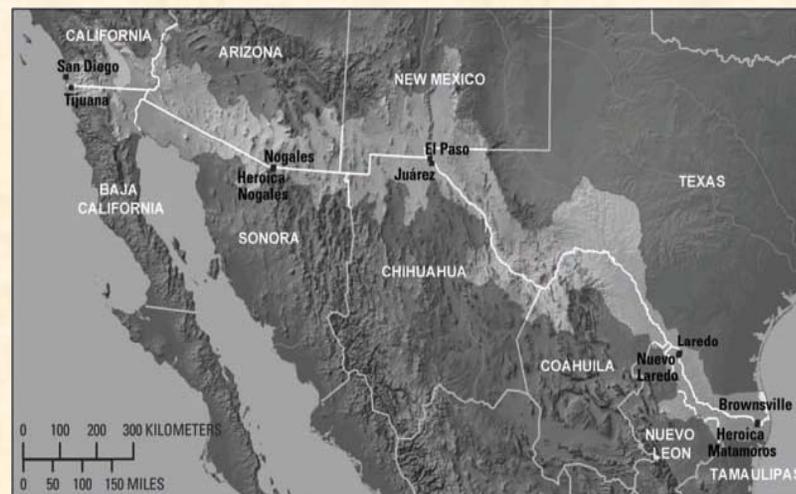
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## International Sub-basin Initiative

View of the shared drainage areas along the international boundaries

- Each basin is unique dependent upon local needs and circumstances
- Desirable to try to anticipate or resolve issues at the local or basin level
- Find more effective ways to engage the public
- Involve other partners
- Issues
  - Trash
  - Sediment Transport
  - Planned Construction along the international boundary

United States/  
Canada  
Watersheds



United States/  
Mexico  
Watersheds



## HISTORY OF THE IBWC

### **Treaty of February 3, 1944 –**

- Distributed the waters in the international segment of the Rio Grande
- Also authorized the two countries to construct operate and maintain dams on the main channel of the Rio Grande
- The 1944 treaty also changed the name of the IBC to the International Boundary And Water Commission (IBWC)
- Entrusted the IBWC to give preferential attention to the solution of all border sanitation problems

### **1970 BOUNDARY TREATY –**

- IBWC to maintain the Rio Grande and Colorado River as the international boundary
- Boundary is middle of the channel occupied by normal flow or middle of the channel which in normal flows has the greatest average width over its length
- IBWC to delineate the boundary on maps
- IBWC may stabilize or rectify the channel (numerous rectifications carried out)
- Prohibits construction of works that would obstruct or deflect normal or flood flows



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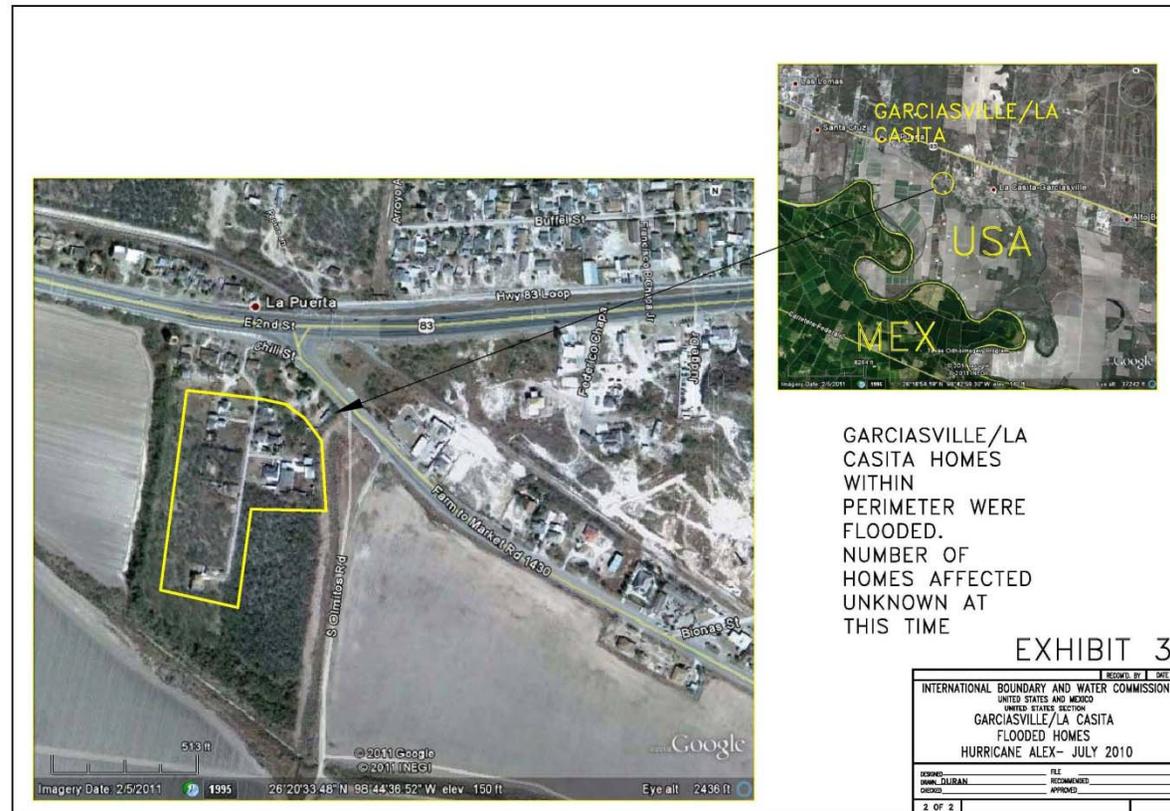
## Hurricane Alex Effects Garciasville/La Casita (1)

- **Garciasville/La Casita**

**Generally flooding occurred south of FM 1430**

**The area's potable water supply pumps kept in service by generators that were fueled by boat**

**The pump area suffered damage by bank erosion of the Rio Grande**





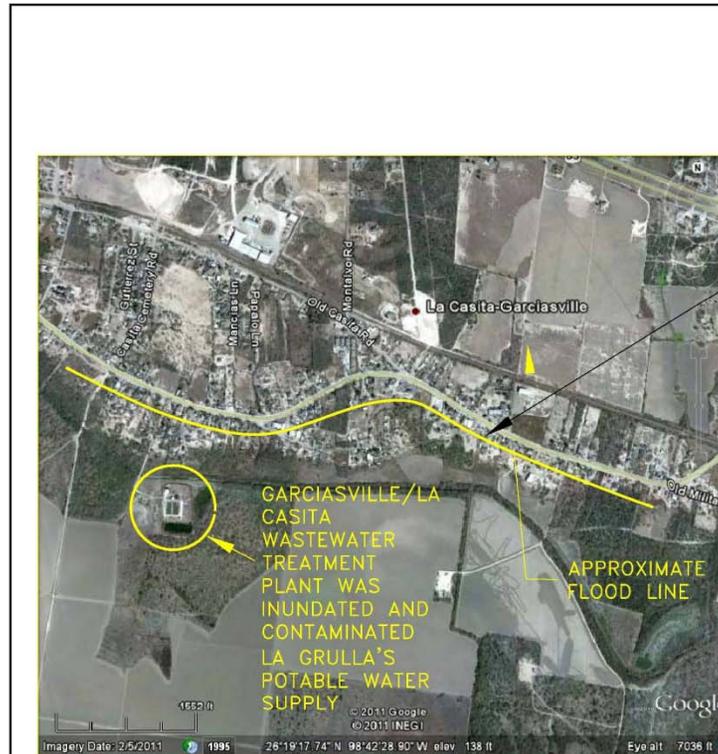
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## Garciasville/La Casita (2) Hurricane Alex Effects

- Garciasville/La Casita

Generally flooding occurred south of FM 1430

The area's wastewater treatment plant was inundated and contaminates released into floodwater



GARCIAVILLE/LA CASITA HOMES TO THE SOUTH OF THE LINE WERE FLOODED. NUMBER OF HOMES AFFECTED UNKNOWN AT THIS TIME

### EXHIBIT 2

INTERNATIONAL BOUNDARY AND WATER COMMISSION		RECORD BY	DATE
UNITED STATES AND MEXICO			
UNITED STATES SECTION			
GARCIAVILLE/LA CASITA			
FLOODED HOMES			
HURRICANE ALEX - JULY 2010			
SEARCHED	FILE		
SERIALIZED	INDEXED		
CHECKED	APPROVED		
1	OF 2		



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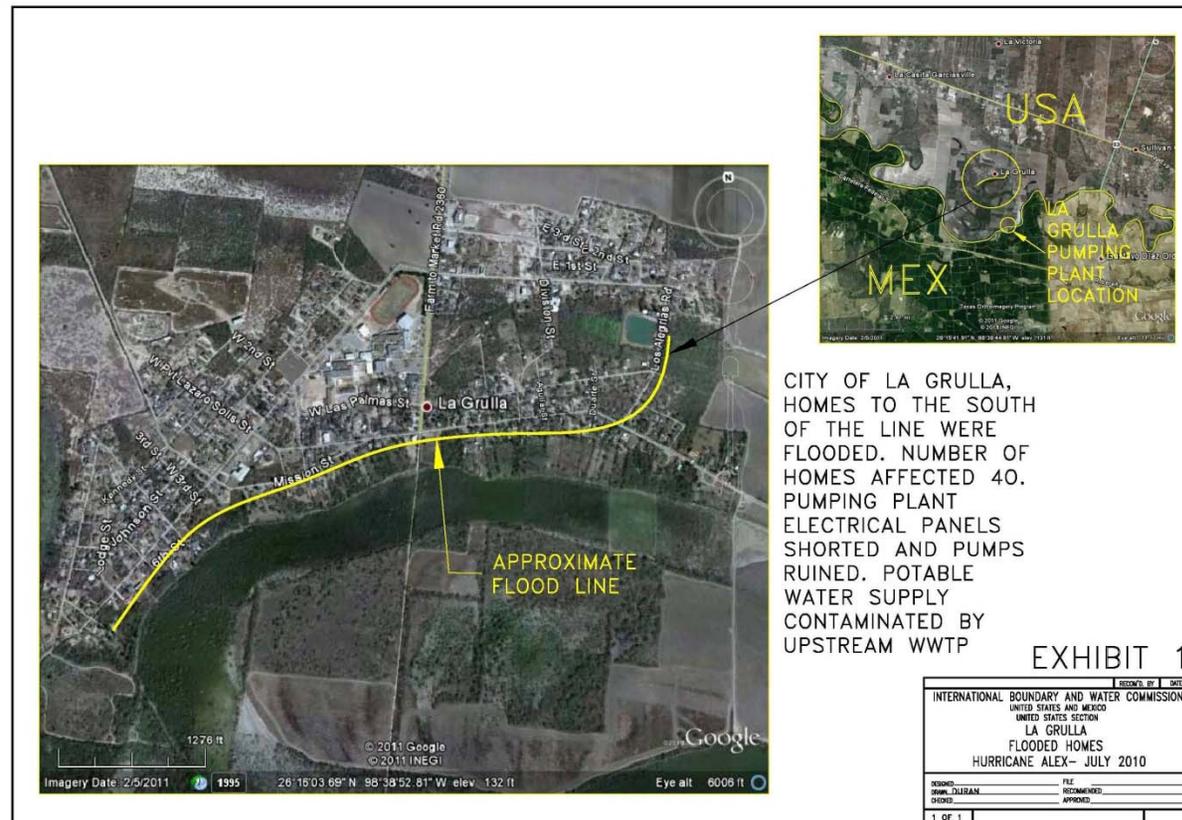
## Hurricane Alex Effects La Grulla

- La Grulla

Flooding occurred on the south side of the city at a location adjacent to an ox bow

The City's potable water supply pumps on the Rio Grande were damaged, 40 homes were effected by flooding

There were contamination issues associated with the potable water supply





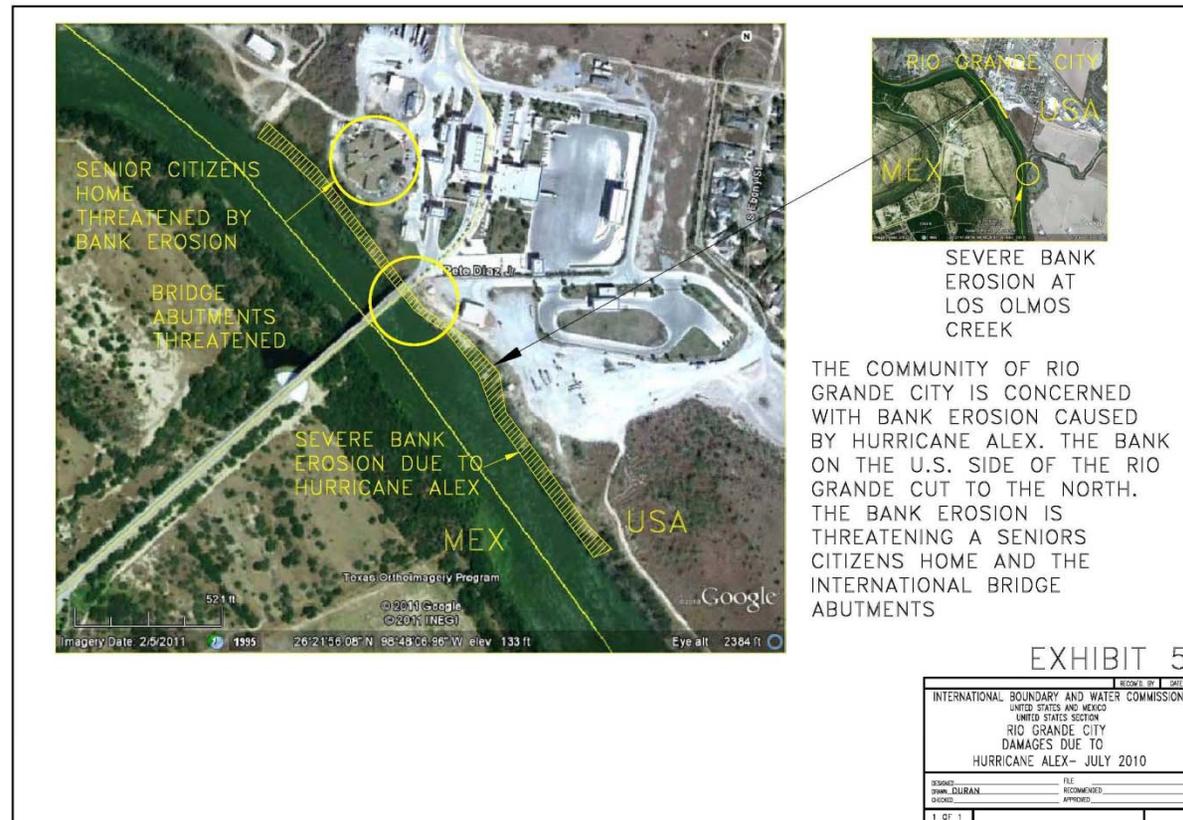
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## Hurricane Alex Effects Rio Grande City

- Rio Grande City**

Erosion on the north bank, the community is concerned about a seniors citizens center and erosion under the Starr/Camargo International Bridge

Erosion on the north bank at the confluence of Los Olmos Arroyo and the Rio Grande



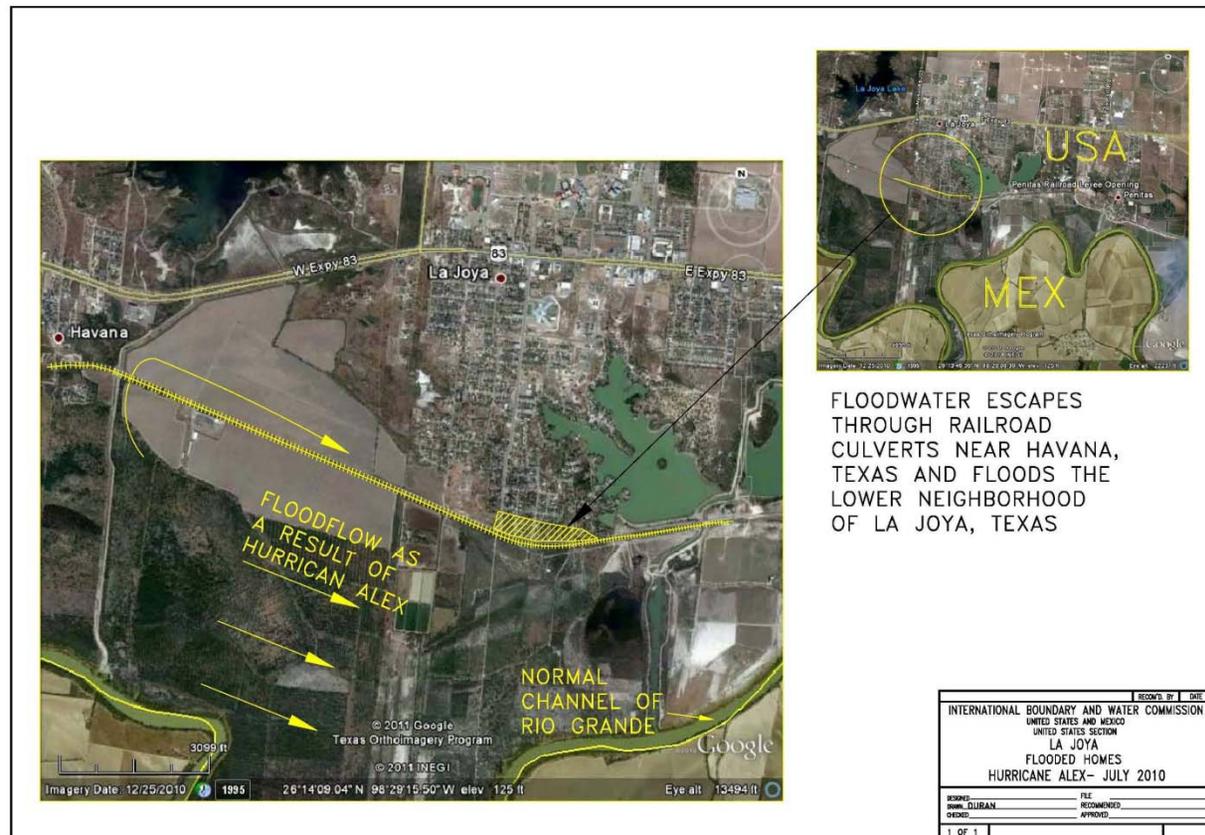


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## Hurricane Alex Effects City of La Joya

- La Joya, Texas

Floodwater escapes to the north side of a railroad embankment passing through culverts and floods a neighborhood

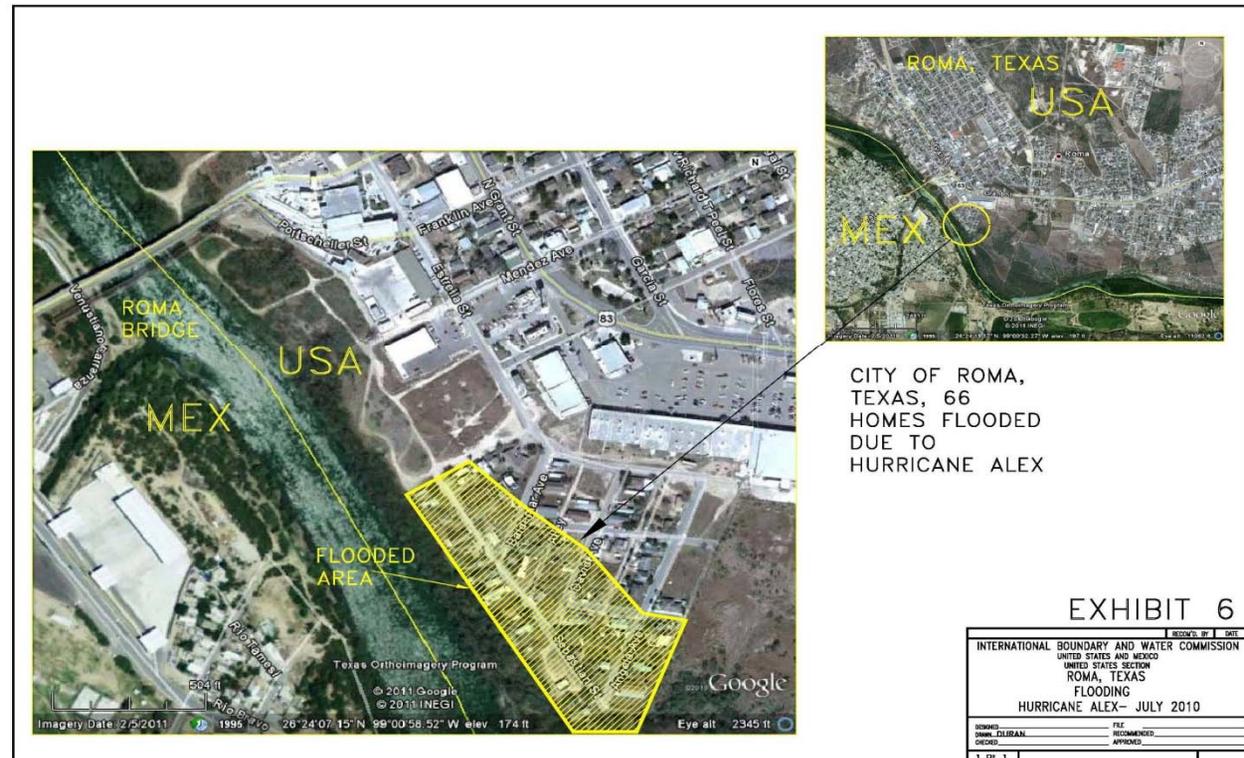




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## Hurricane Alex Effects City of Roma

- City of Roma, Texas – 66 homes flooded due to Hurricane Alex
- Floodwater began flowing into the De La Cruz neighborhood via a drainage channel





## IBWC Minutes

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- Formalize IBWC agreements
- Legally binding
- Take effect upon signature and approval by both Governments
- Over 300 Minutes



*IBWC Minute*



## International Projects

### Nuevo Laredo International Wastewater Treatment Plant

#### Minute 279

Joint Measures to Improve the Quality of the Waters of the Rio Grande at Laredo, Texas/Nuevo Laredo, Tamaulipas

The Commission referred to the 1944 Water Treaty

The Commission referred to the spirit of cooperation between the two Governments on Cooperation for the Protection and Improvement of the Environment

#### Nuevo Laredo International Wastewater Treatment Plant



#### Pollution Source Location and Monitoring



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## Conveyance Issues Rio Grande



**Roma Residential Flooding,  
Hurricane Alex 2010**



**La Grulla Residential Flooding,  
Hurricane Alex 2010**

**Hurricane  
Alex Flooding  
in Laredo,  
2010**



**Hurricane  
Alex Flooding  
La Joya 2010**

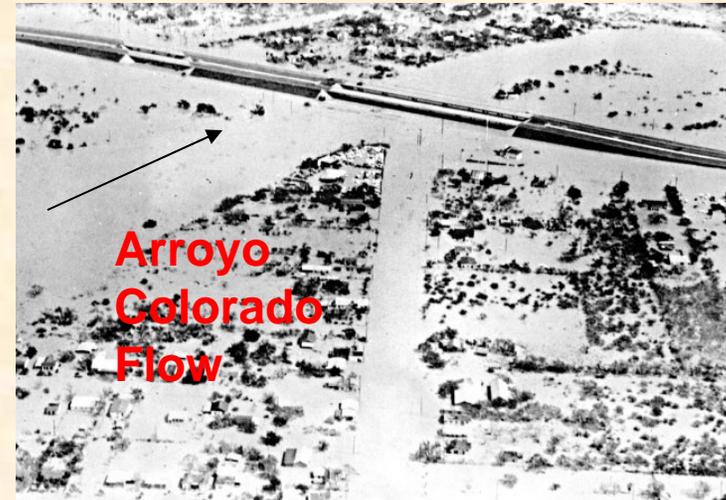




## Arroyo Colorado - History

- Hurricane Beulah September 1967 flooded Harlingen via the Arroyo Colorado
- A weir failed causing 60,000 cfs to flow into the Arroyo Colorado
- A Divisor Dike was constructed in 1968 to insure the arroyo will receive its design flow of 21,000 cfs during a major event

Hurricane  
Beulah  
1967  
Hwy 77 At  
Arroyo  
Colorado



Flooding  
Harlingen,  
Texas  
1967



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



# Arroyo Colorado – Immediate and Long Term Project Schedule

## Immediate Project

**Remove Trash  
Dead Trees**      **Oct. 1, 2012  
through  
Feb. 28, 2012**

## Long Term Project

**Conduct Hydraulic  
Analysis**      **April 2012-  
Dec. 2012**

**Research Alternatives**      **Dec. 2012-  
Dec. 2014**

**Begin Environmental  
Documentation – Coordination  
with Stakeholders' and agencies  
Maintenance Plan**      **July 2012**

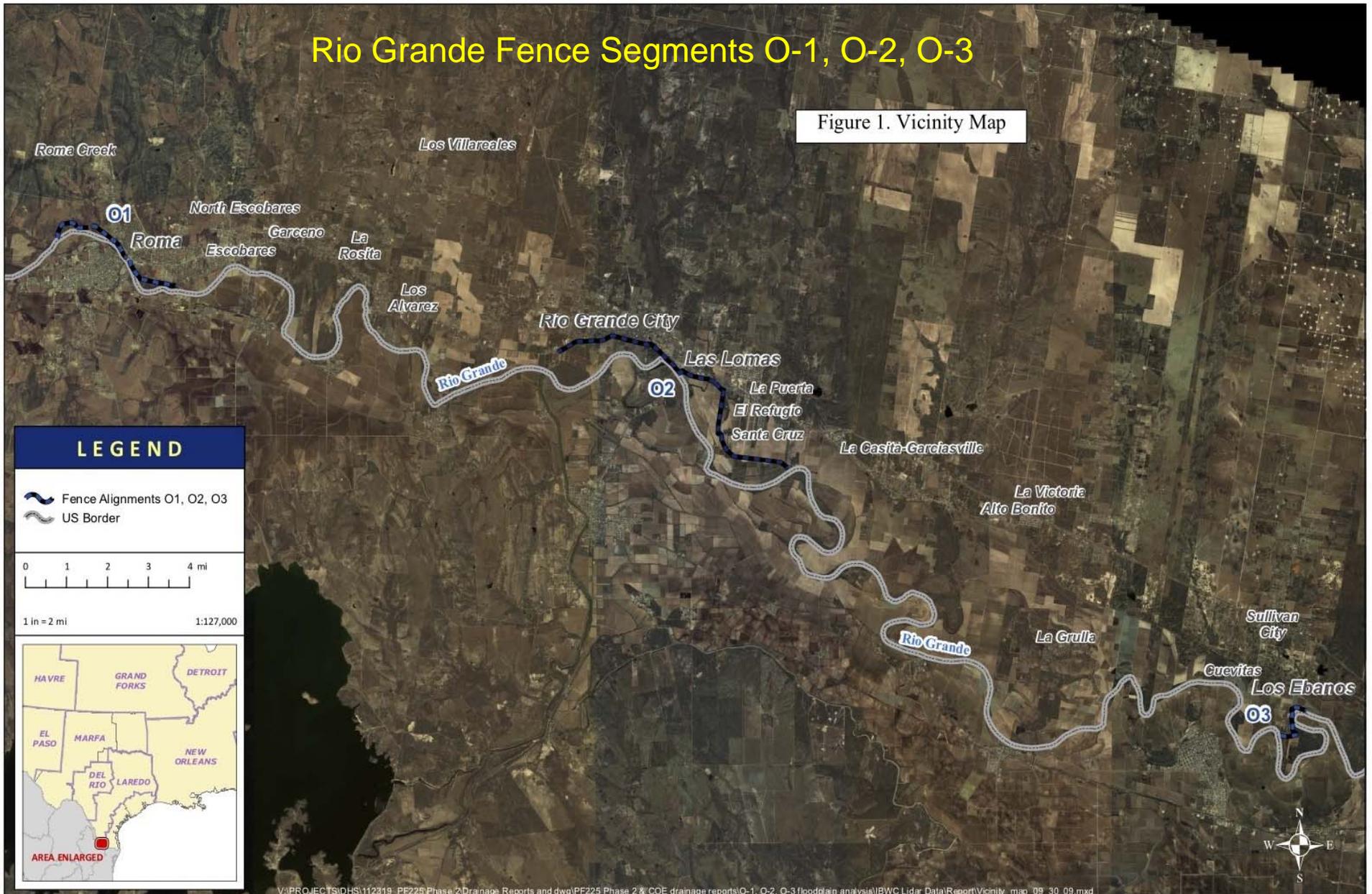
**Construct Improvements**      **2014**



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## Rio Grande Fence Segments O-1, O-2, O-3

Figure 1. Vicinity Map



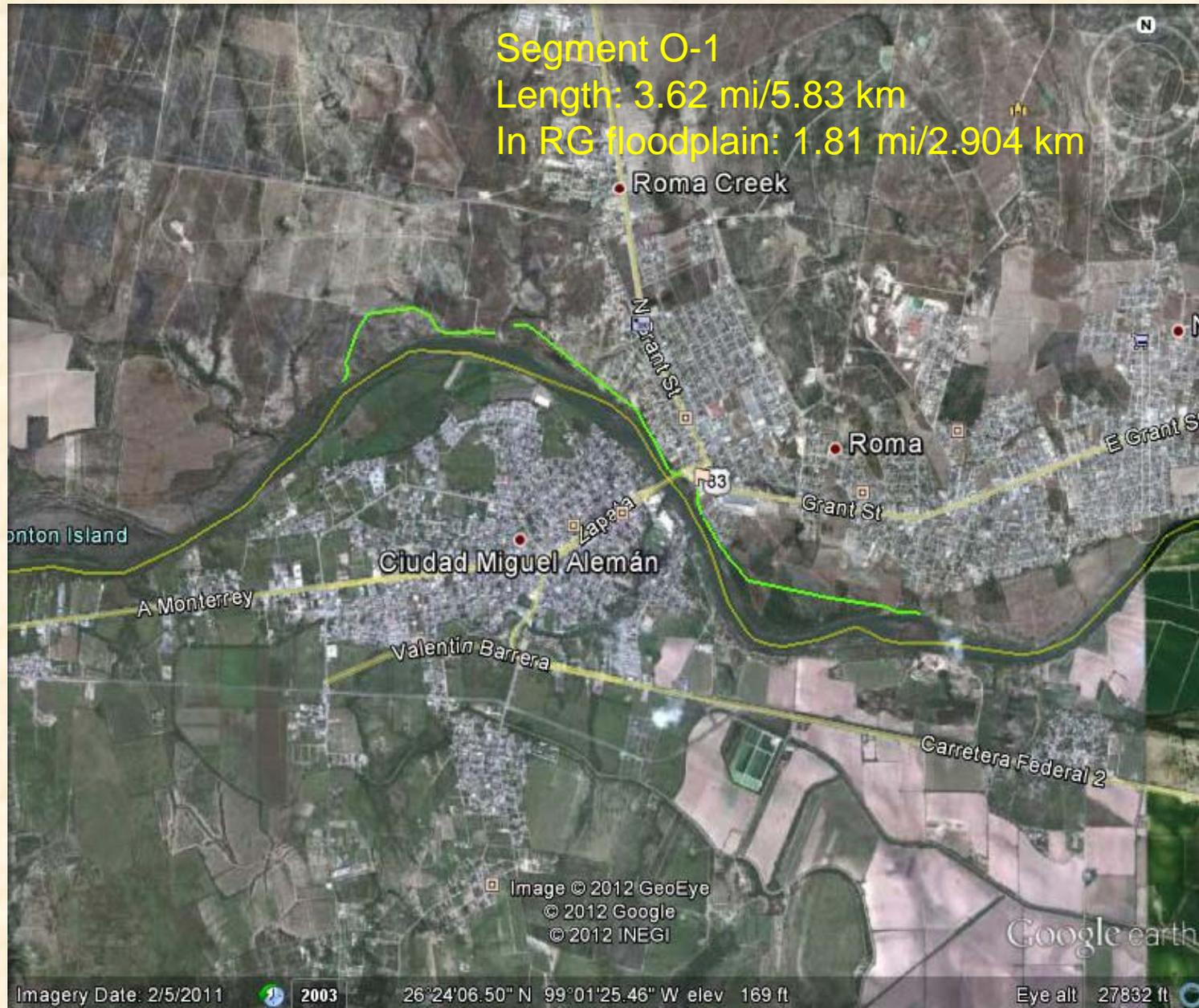


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Segment O-1

Length: 3.62 mi/5.83 km

In RG floodplain: 1.81 mi/2.904 km





# International Boundary and Water Commission United States Section

Segment O-2

Length: 7.2 mi/11.587 km

In RG floodplain: 3.43 mi/5.439 km





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## Timeline of Analysis

- March, 2008: DHS submitted post in floodplain based HEC-RAS report to US Section.
- May, 2008: DHS investigated removable bollard and found this to be impractical.
- Dec, 2009: DHS submitted split-flow modeling based HEC-RAS report to US Section.
- Jan, 2010: DHS presented results of the HEC-RAS model to US Section.



## Timeline of Analysis

- Jan, 2010: Former Commissioner Ruth met with Commissioner Salomon and unofficially shared the results. MX Section did not agree that the fence would not be an obstruction.
- May 2010: Commissioner Drusina requested DHS to model the fence with a two-dimensional model.
- Feb, 2011: US Section met with DHS and USACE to discuss and finalize FLO-2D modeling methodology.



## Timeline of Analysis

- June, 2011: DHS submitted Draft FLO-2D Report to the US Section.
- June, 2011: US Section provided technical review comments to DHS.
- Aug, 2011: DHS submitted FLO-2D Report to US Section.



## Timeline of Analysis

- Sept, 2011: US Section forwarded Drainage Report and FLO-2D models to MX Section for review and concurrence.
- Dec, 2011: MX Section provided results of their review.



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