



**U.S. INTERNATIONAL BOUNDARY AND WATER COMMISSION**

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**LEVEE IMPROVEMENTS  
RIO GRANDE RECTIFICATION PROJECT  
EL PASO AREA**

**Mr. Al Riera, P.E.**

**RIO GRANDE CITIZENS' FORUM  
NOVEMBER 7, 2007**

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# **Levee Raising Objectives**

- Comply with FEMA levee certification requirements
    - Provide three feet of freeboard (100 Yr. Flood)
  - Improve flood protection
  - Protect densely populated areas
  - Complete project in 2007
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# Levee Raising Reaches

- End of Chamizal to Old Riverside Dam - 8.4 mi.
- Int'l Dam to Beginning of Chamizal - 0.6 mi.
- Paisano Drive to International Dam - 0.5 mi.

Total: 9.5 mi.

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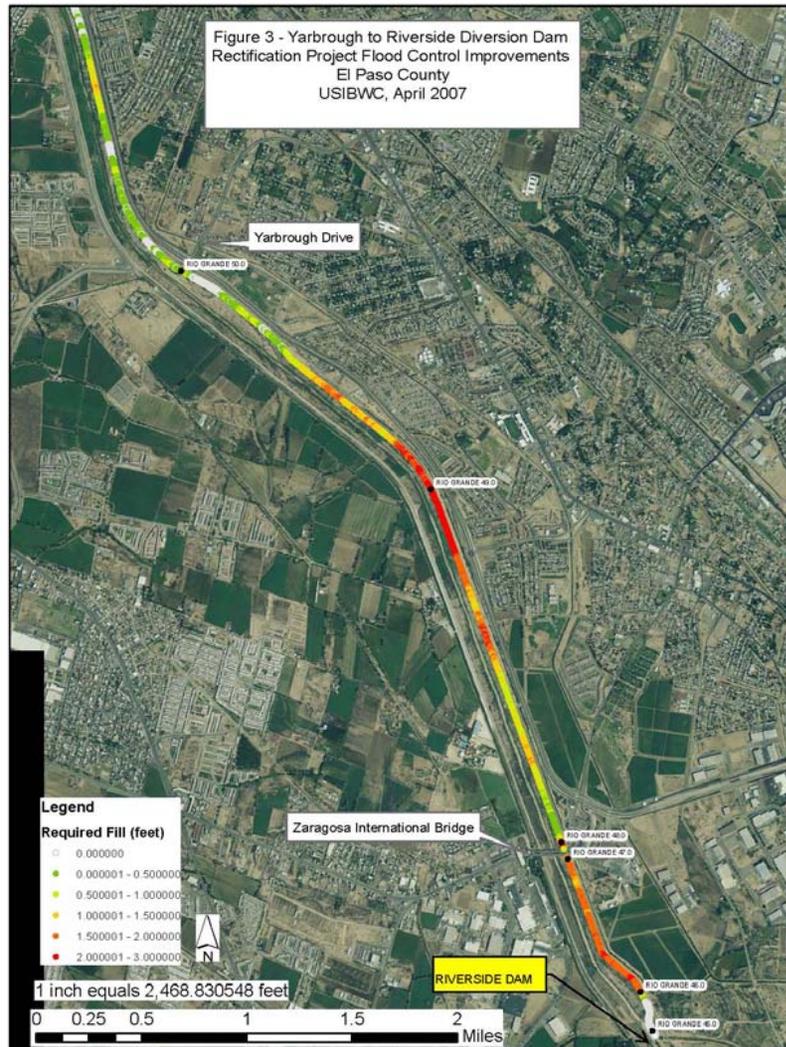
## LEGEND

### Required Fill (feet)

	Grey	0.0
	Green	0.0 - 0.5
	Light Green	0.5 - 1.0
	Light Orange	1.0 - 1.5
	Orange	1.5 - 2.0
	Red	2.0 - 3.0



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# Levee Raising Work

- Work Started: May 17, 2007
  - Work Completed: August 30, 2007
  - Equipment Used:
    - 2 Graders
    - 2 Scrapers
    - 2 Pad Drum Vibratory Rollers
    - 2 Smooth Drum Vibratory Rollers
    - 3 Water Trucks/1 Service Truck
    - 2 Water Pumps
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## Levee Raising Work (Cont.)

- USIBWC Field Personnel
    - 1 Supervisor
    - 6 Heavy Equipment Operators
    - 1 Mechanic
    - 2 Light Equipment Operators
    - 1 Heavy Equipment Servicer
  - 56,400 Tons of Embankment Material Used
  - 30,900 Tons Total Surfacing Material Used:
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# Levee Raising Work (Cont.)

- Costs
  - Embankment Material \$ 293,579.00
  - Surfacing Material \$ 209,183.00
  - Rental Equipment (4 mos.)
    - 1 Water Truck \$ 15,140.00
    - 2 Rollers \$ 22,000.00
    - 2 Water Pumps \$ 15,600.00
  - Soil Testing Laboratory \$ 8,036.00
  - Labor \$ 180,000.00
  - Materials/Fuel \$ 65,125.00
  - TOTAL \$ 808,663.00**



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Scraping top of levee road

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Placement of embankment material

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Compacting embankment material using pad drum roller

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Placement of surfacing material

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Compacting surfacing material using smooth drum roller

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Before



After

Downstream of International Dam

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# **QUESTIONS?**

