

INTERNATIONAL BOUNDARY AND WATER COMMISSION UNITED STATES AND MEXICO



Upper Rio Grande Flood Control Project

Levee Improvements

March 2009

Rio Grande Canalization Project

- Constructed 1938-1943
- Water delivery and flood control project
- 106 river miles from Percha Dam, NM to American Dam at El Paso, TX
- 130 miles of flood control levees



Levee Terminology

Riverside

Levee

Landside

Freeboard

Base Flood Elevation

(1% annual chance of occurrence) = 100yr event

Overtopping

Slope failure

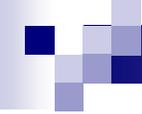
Foundation

Structural Integrity

Through seepage

Underseepage
(sand boils)





Current Levee Status – Doña Ana/El Paso County

- Levee Height is deficient and Plating is required for levees in Doña Ana County
- Levee Height is deficient and Plating is required for in El Paso County
- New Levee and Floodwall for Canutillo

Levee Status – Doña Ana County

- USIBWC will raise and add plating to:
 - West Levee
 - Hatch Siphon to Bignell Arroyo
 - Picacho Flume to NM State Park
 - Mesilla Dam to New Nemexas Drain

Levee Status – Doña Ana/El Paso County

- USIBWC will raise and add plating to:

- East Levee

- Selden Canyon to Vinton Bridge

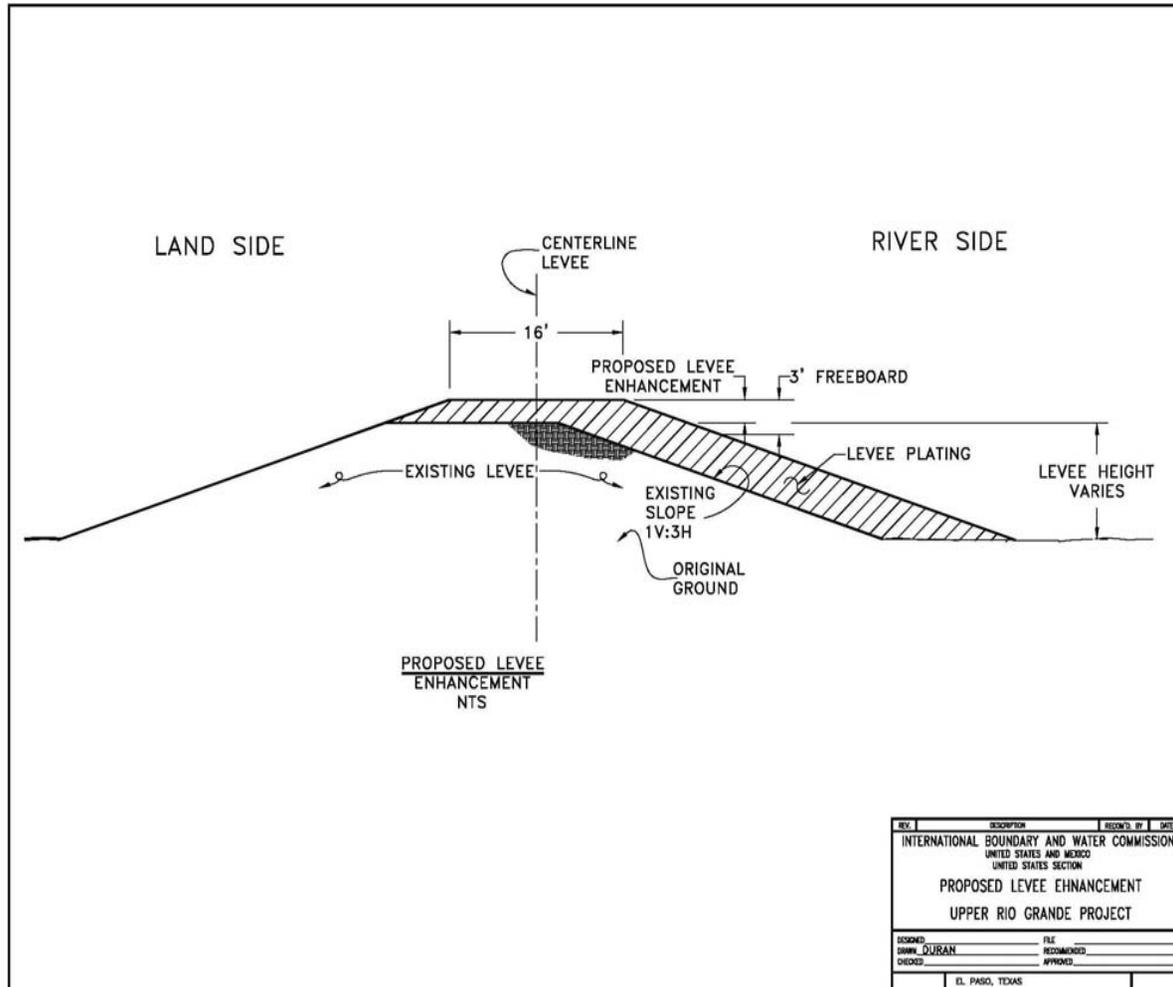
- Borderland Bridge to Electric Plant

NEW LEVEE/FLOODWALL

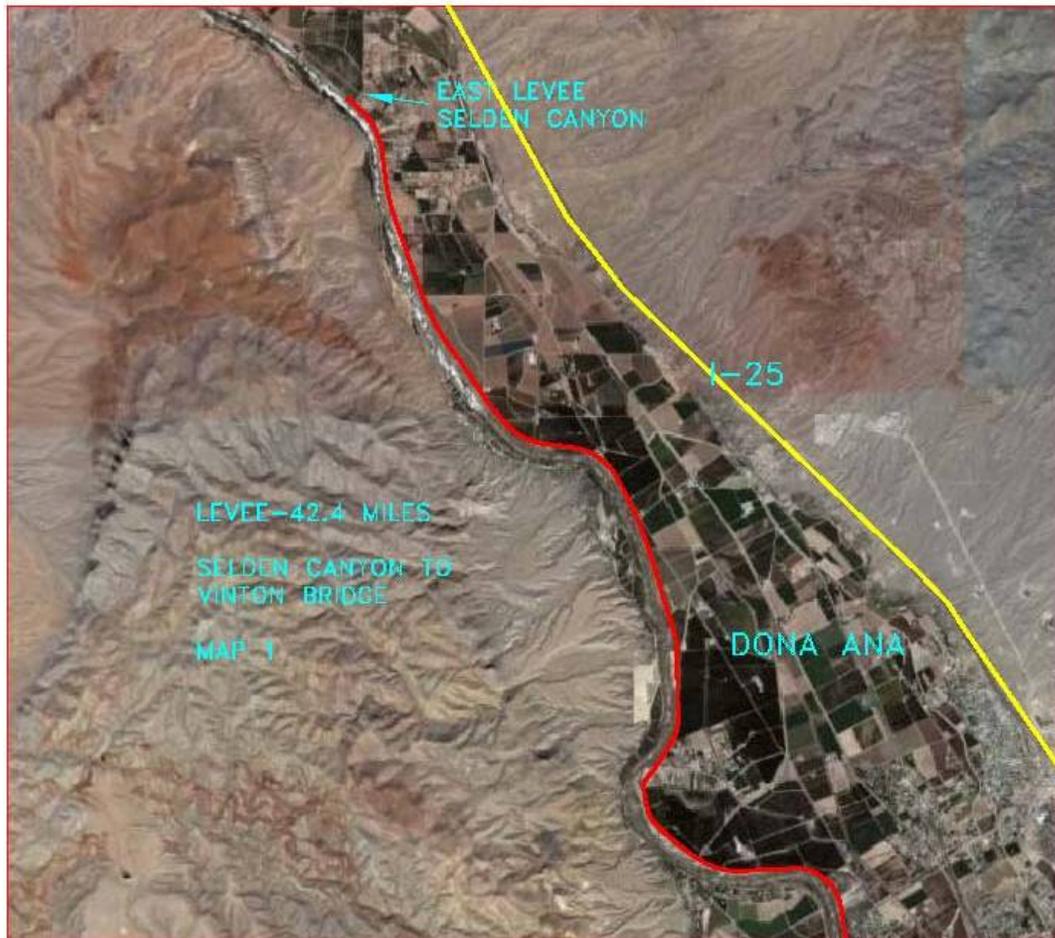
- East Levee

- Canutillo, Vinton Bridge to Borderland Bridge

LEVEE ENHANCEMENT TYPICAL SECTION



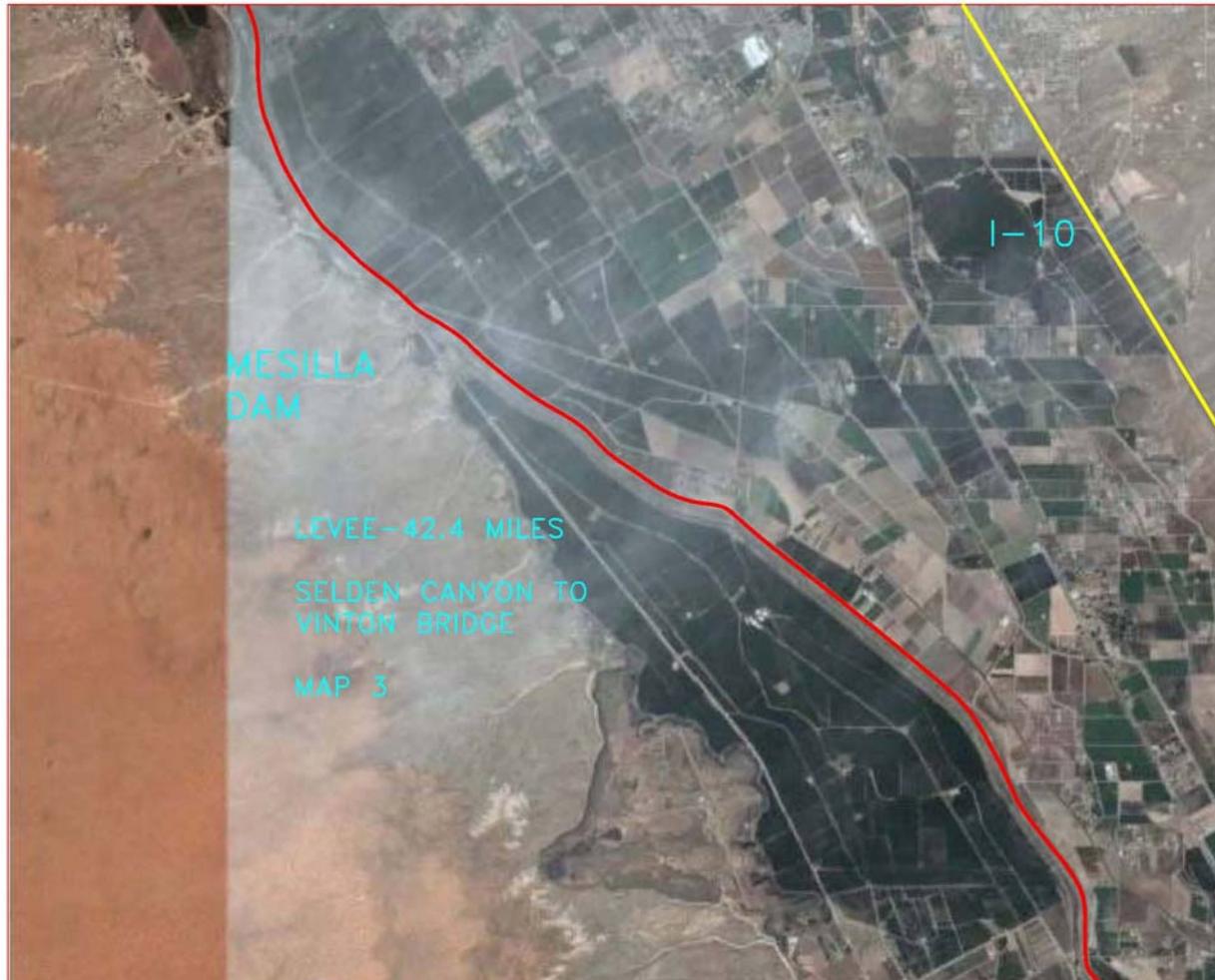
EAST LEVEE SELDEN CANYON TO VINTON BRIDGE MAP 1 of 5



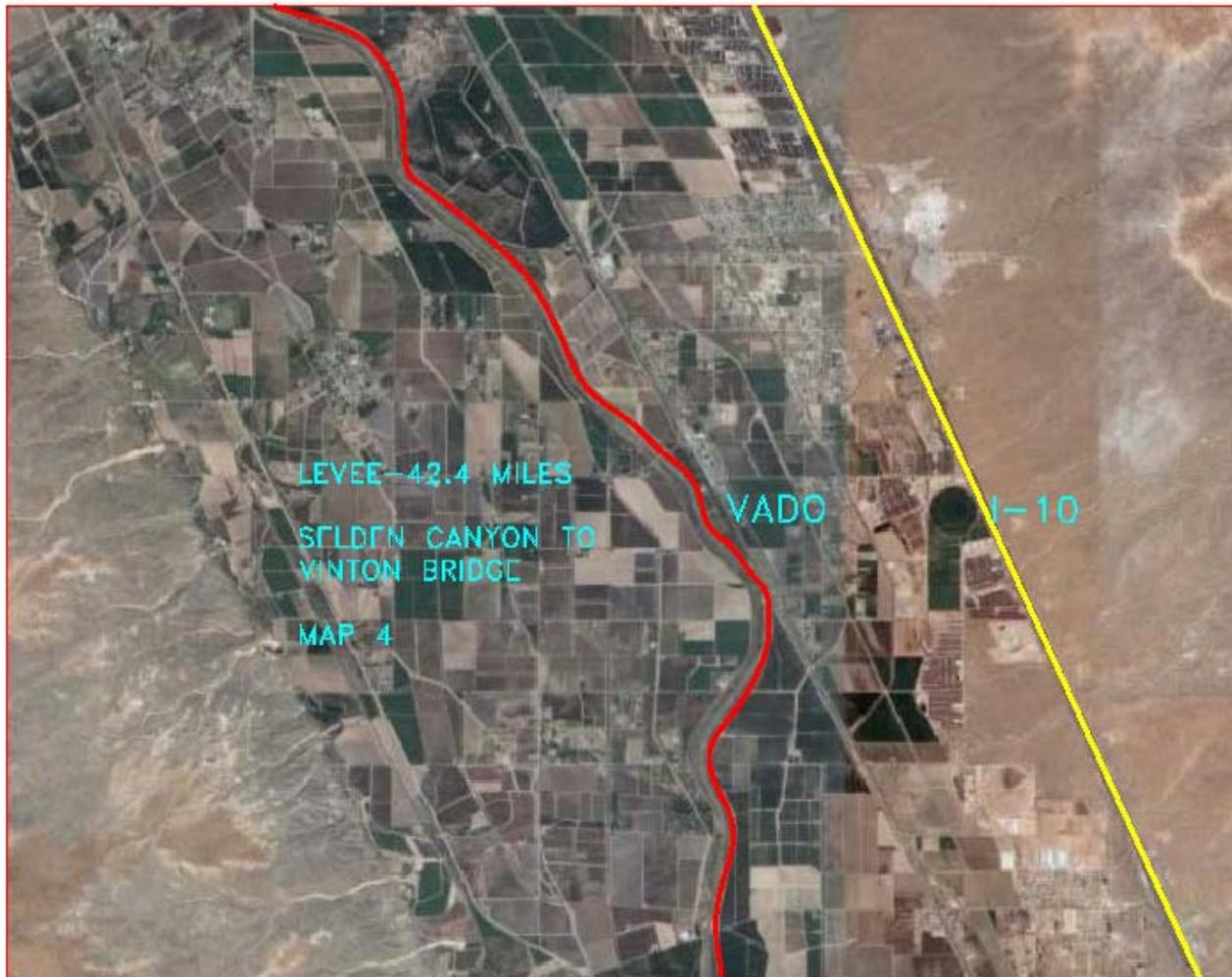
EAST LEVEE SELDEN CANYON TO VINTON BRIDGE MAP 2 of 5



EAST LEVEE SELDEN CANYON TO VINTON BRIDGE MAP 3 of 5



EAST LEVEE SELDEN CANYON TO VINTON BRIDGE MAP 4 of 5



EAST LEVEE SELDEN CANYON TO VINTON BRIDGE MAP 5 of 5



EAST LEVEE CANUTILLO AREA



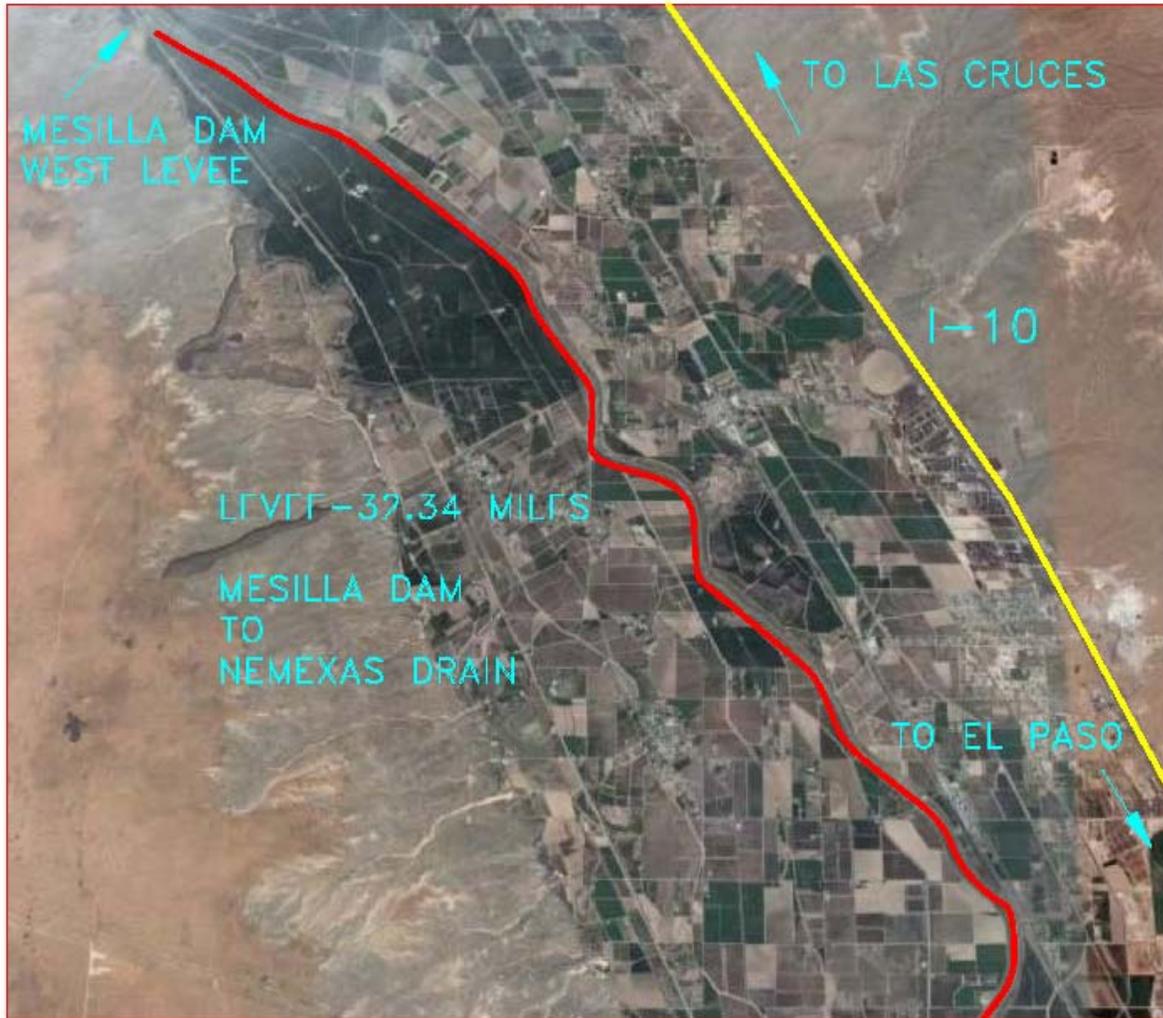
WEST LEVEE HATCH SIPHON TO BIGNELL ARROYO



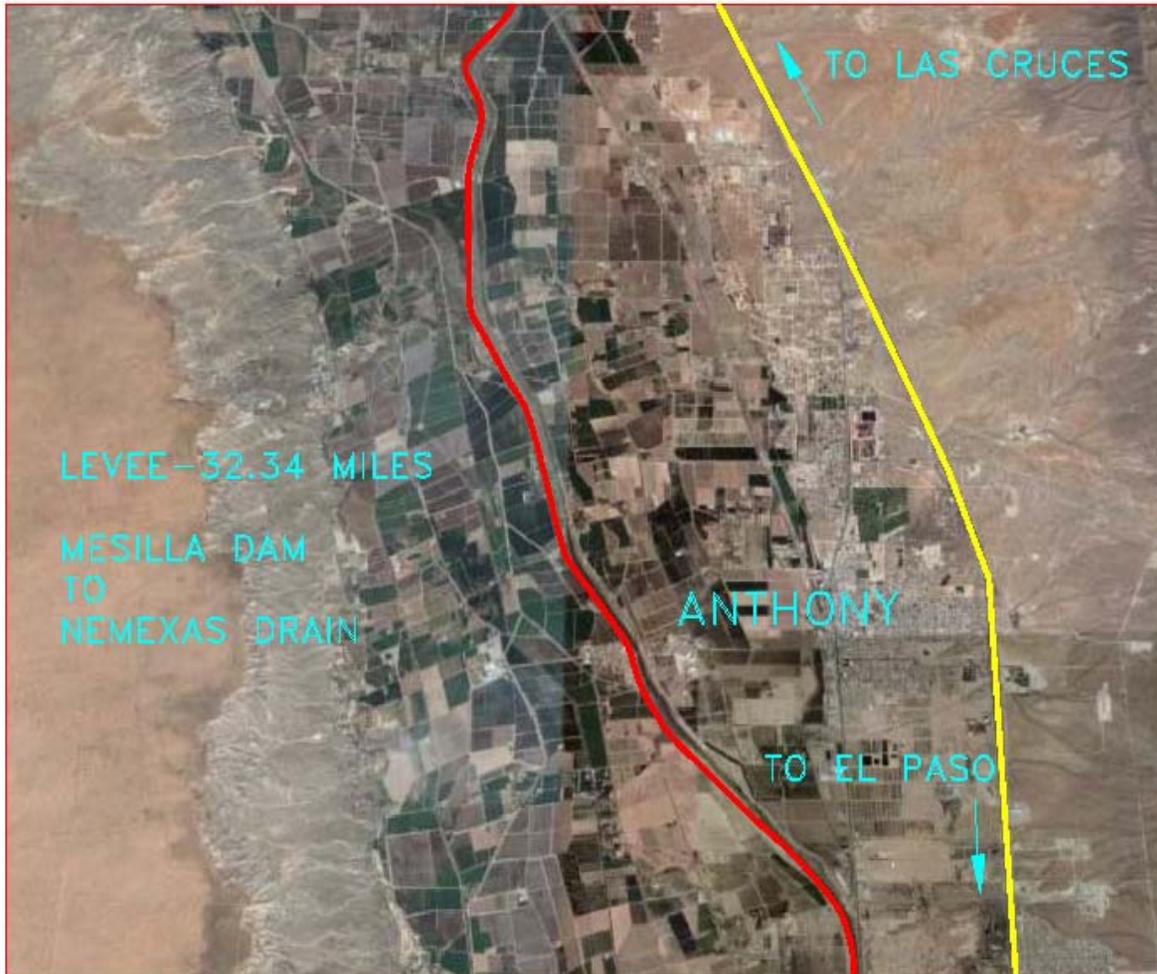
WEST LEVEE PICACHO FLUME TO NEW MEXICO STATE PARK



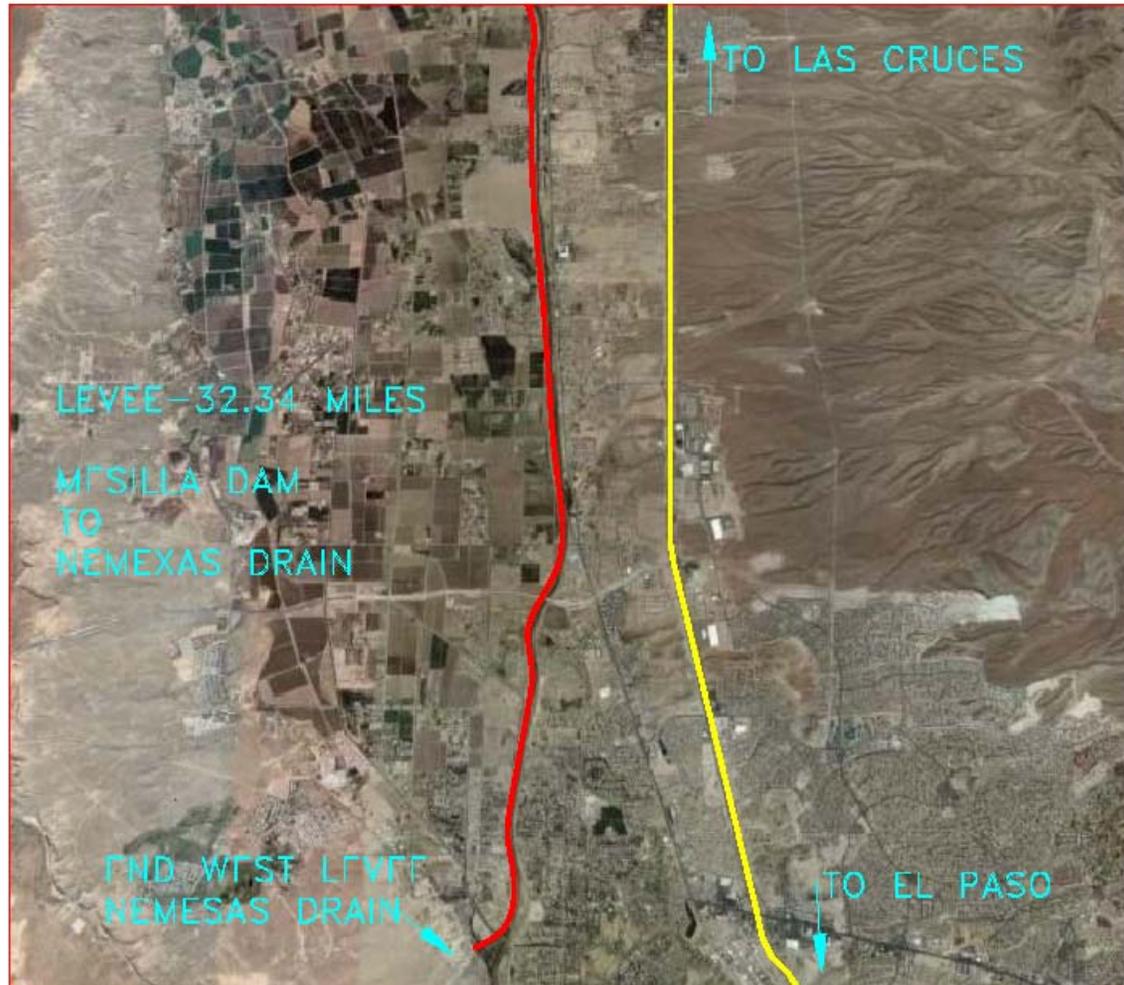
WEST LEVEE MESILLA DAM TO NEMEXAS DRAIN MAP 1 OF 3



WEST LEVEE MESILLA DAM TO NEMEXAS DRAIN MAP 2 OF 3



WEST LEVEE MESILLA DAM TO NEMEXAS DRAIN MAP 3 OF 3

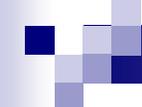


LEVEE ENHANCMENT EQUIPMENT ON LEVEE



LEVEE ENHANCEMENT EQUIPMENT





Why Perform Levee Improvements?

- FEMA is updating flood insurance rate maps
- FEMA requires levees to contain the 100-year flood with 3 ft. freeboard
- USIBWC notified FEMA in 2006 that it could not certify all levees as meeting this requirement



FEMA Contact Information

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Upper Rio Grande Levee Work Planned for 2009 Through 2011

■ Levee Enhancement

- A crew is currently working on the East Levee progressing to the North.
- Projection is to complete levee enhancement in Mesilla Valley
- Enhance West levee in Rincon Valley
- Design Canutillo levee improvements 2009

WORK EXPECTATIONS

- Working Hours:
 - Monday – Friday 7:00 Am to 5:00 PM (Some Saturdays Possible) subject to change

- Noise: Construction Equipment

- Dirt and Dust:
 - USIBWC will manage dust

- Levee Traffic:
 - Construction Equipment/Pickups

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