

# INTERNATIONAL BOUNDARY AND WATER COMMISSION UNITED STATES AND MEXICO



Upper Rio Grande Flood Control Project

Levee Improvement

June 22, 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

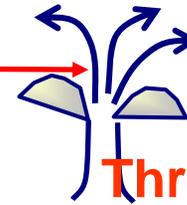
Slope failure

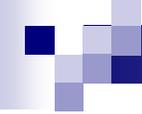
Foundation

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 in El Paso County
- New Levee and Floodwall for Canutillo

# Levee Status – Doña Ana County

## ■ Hatch Area Levees

- Hatch West Levee (Hatch Siphon to Bignell Arroyo)  
Levee Enhancement, Structure Improvements
  - Issue Contract Task Order 6/22/09
  - Produce Plans and Specs by 10/28/09
  - Construct Flood Control Improvements 2/11/2010 to 2/5/2011

# Levee Status – Doña Ana County

- USIBWC will raise and add plating to:
  
- Mesilla Levees (Shalem Bridge to Vado Bridge)
  - Mesilla, West Levee (Shalem Bridge/Picacho. Flume to Mesilla Valley Bosque Park) ARRP Funds, design and Construction
    - Issue Contract Task Order 6/22/09
    - Produce Plans and Specs by 10/28/09
    - Construct Flood Control Improvements 2/11/2010 to 2/5/2011
  
  - Mesilla, East Levee, (Selden Canyon to Mesilla Dam) Levee Enhancement with non ARRA funds, In-house forces, ARRA funds for structure enhancement design
    - Complete 33% anticipated completion date 9/30/10
  
- Mesilla, East and West Levees (Mesilla Dam to Vado Bridge)
  - East Levee (Mesilla Dam to Vado Bridge)
  - West Levee (Mesilla Dam to Vado Bridge)
    - Issue Contract Task Order 6/22/09
    - Produce Plans and Specs by 10/28/09
    - Construct Flood Control Improvements 2/11/2010 to 2/5/2011

# Levee Status – El Paso, Doña Ana Counties

## Anthony/El Paso

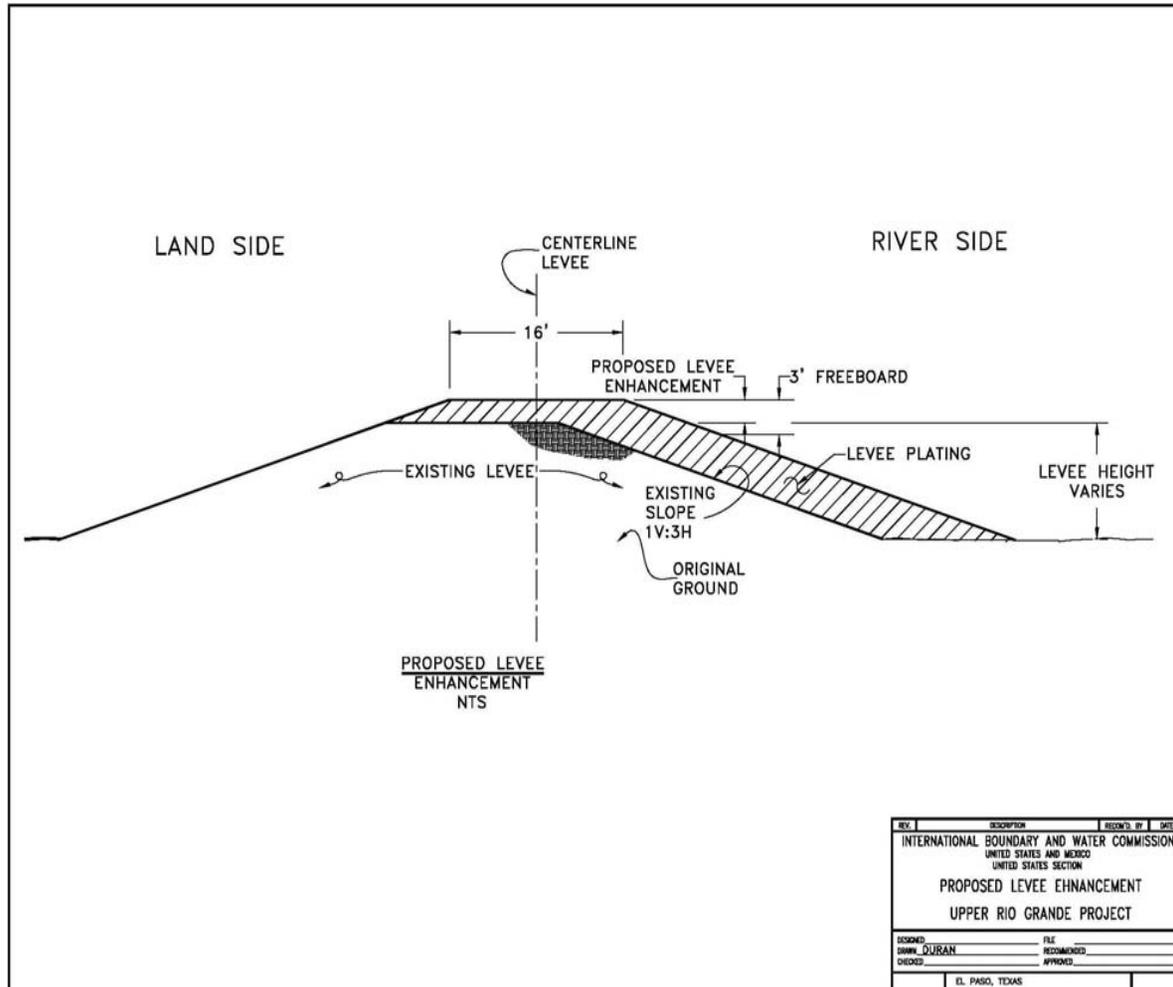
- East Levee (Vado Bridge to Vinton Bridge)
- West Levee (Vado Bridge to Country Club Bridge)
- Anapra Levee
  - Issue Contract Task Order 6/22/09
  - Produce Plans and Specs by 10/28/09
  - Construct Flood Control Improvements 2/11/2010 to 2/5/2011

# Levee Status – Doña Ana/El Paso County

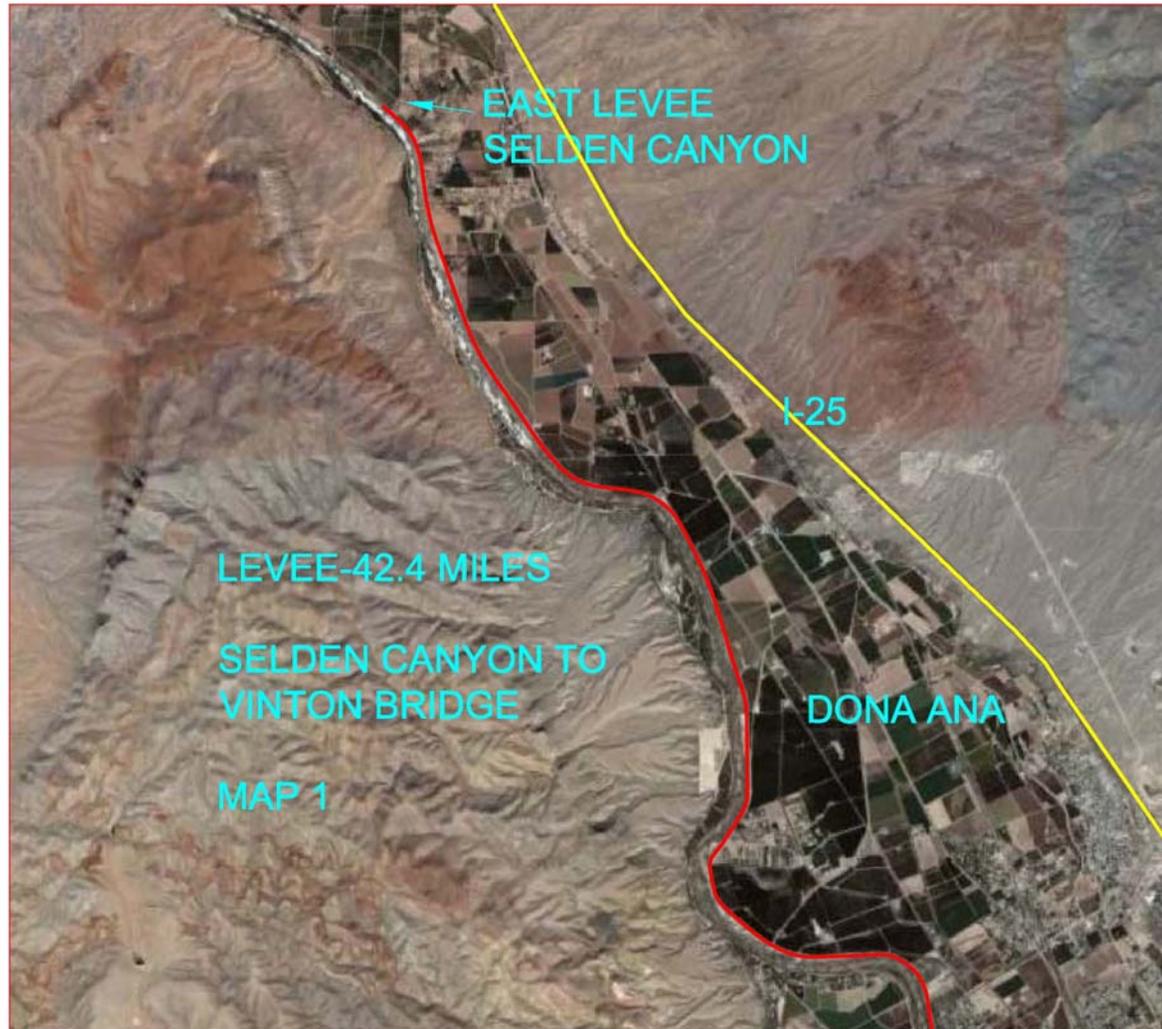
## East Levee

- Canutillo, Vinton Bridge to Borderland Bridge
  - NEW LEVEE/FLOODWALL
  - ARRA Funds For DesignOut Year Funding
  
- Borderland Bridge to Electric Plant
  - Levee Enhancement with non ARRA funds, In-house forces, ARRA funds for structure enhancement design
    - Complete 33% anticipated completion date 9/30/10

# LEVEE ENHANCEMENT TYPICAL SECTION



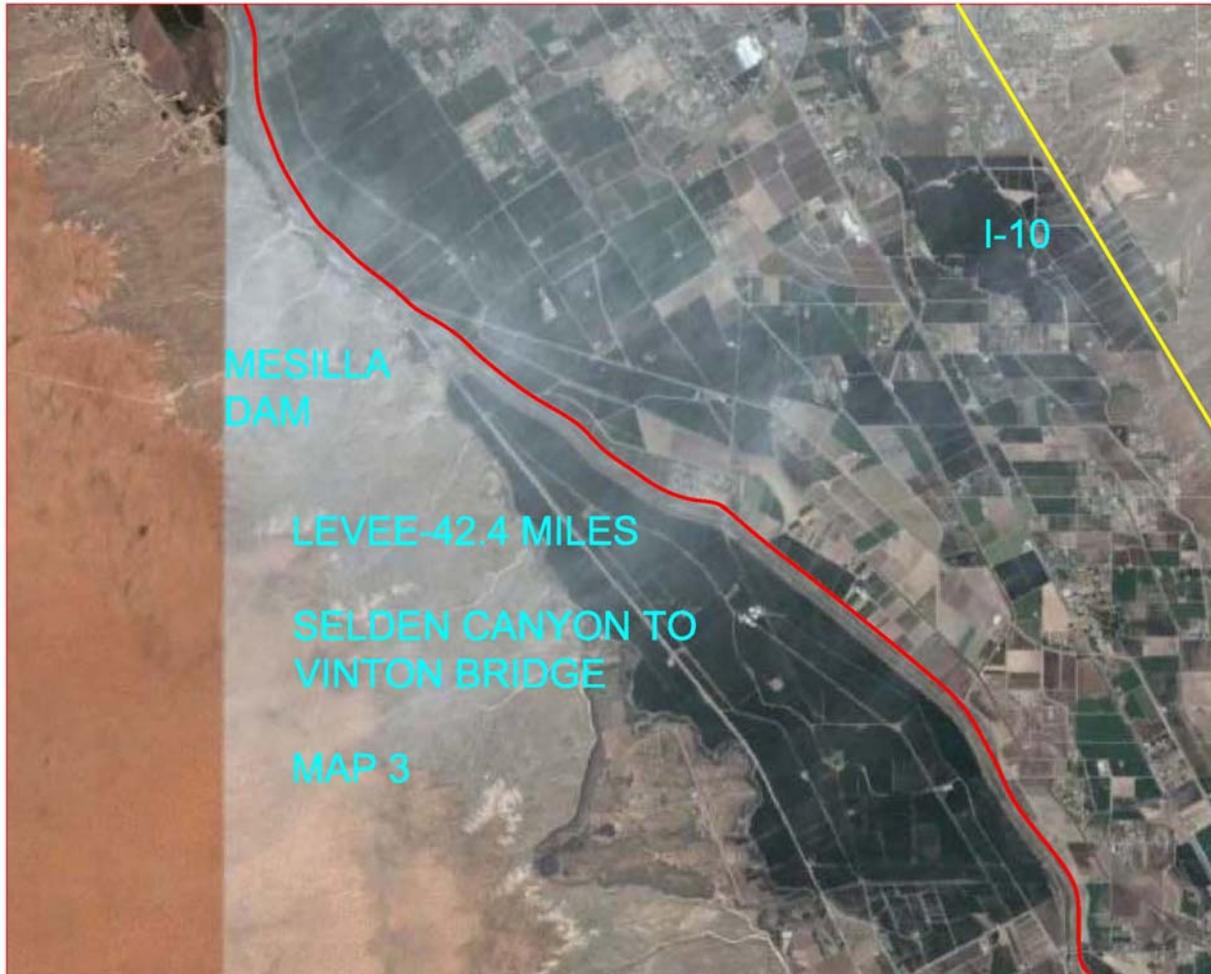
# EAST LEVEE SELDEN CANYON TO VINTON BRIDGE MAP 1 of 5



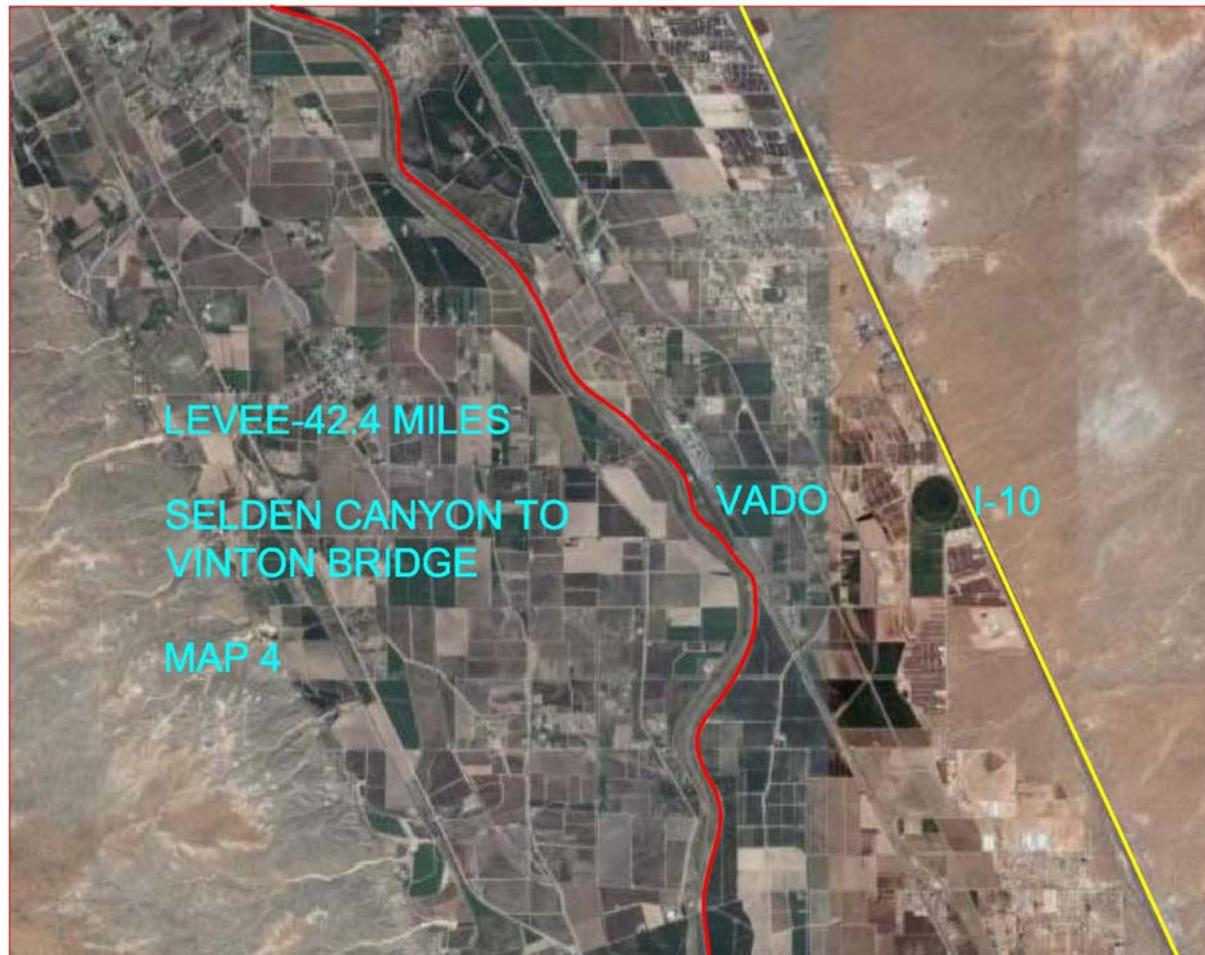
# EAST LEVEE SELDEN CANYON TO VINTON BRIDGE MAP 2 of 5



# 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

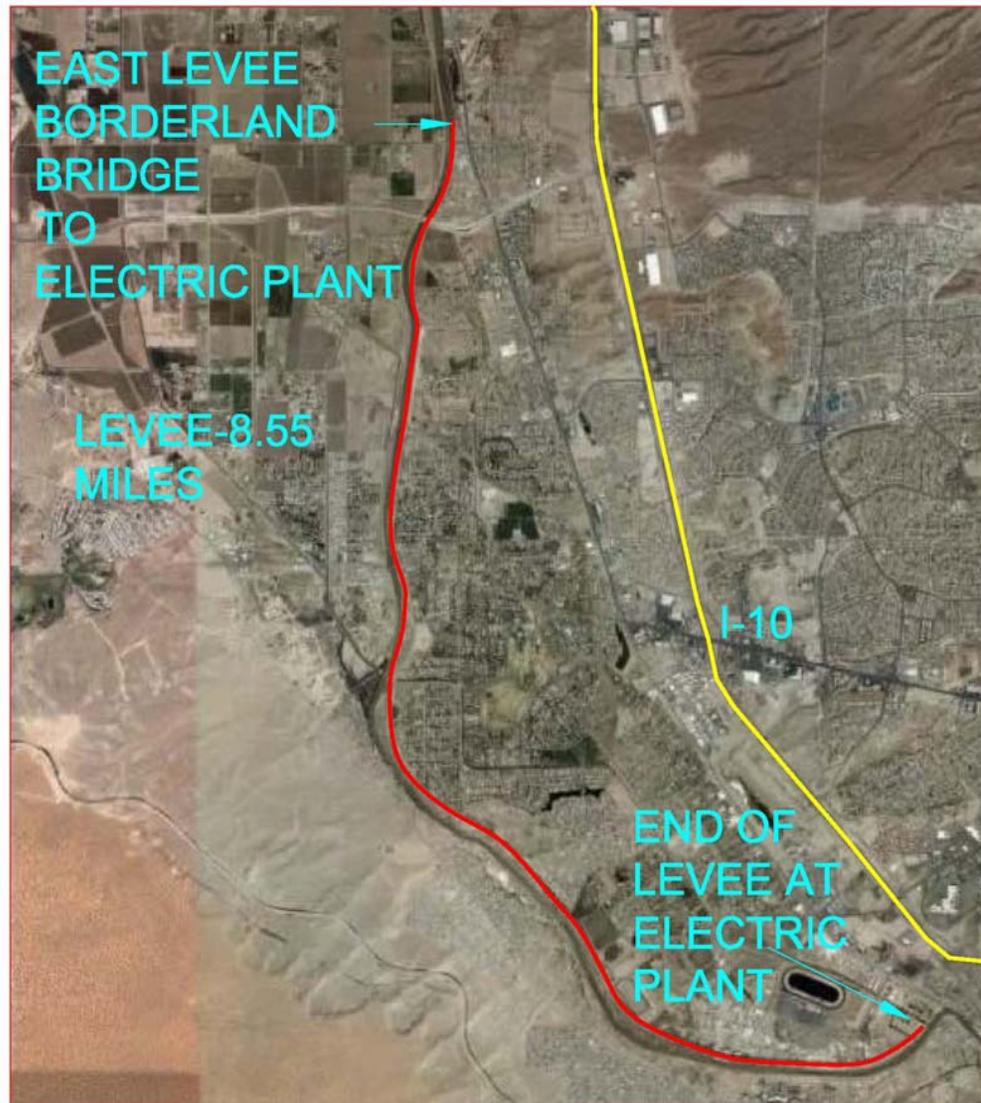


# EAST LEVEE CANUTILLO AREA

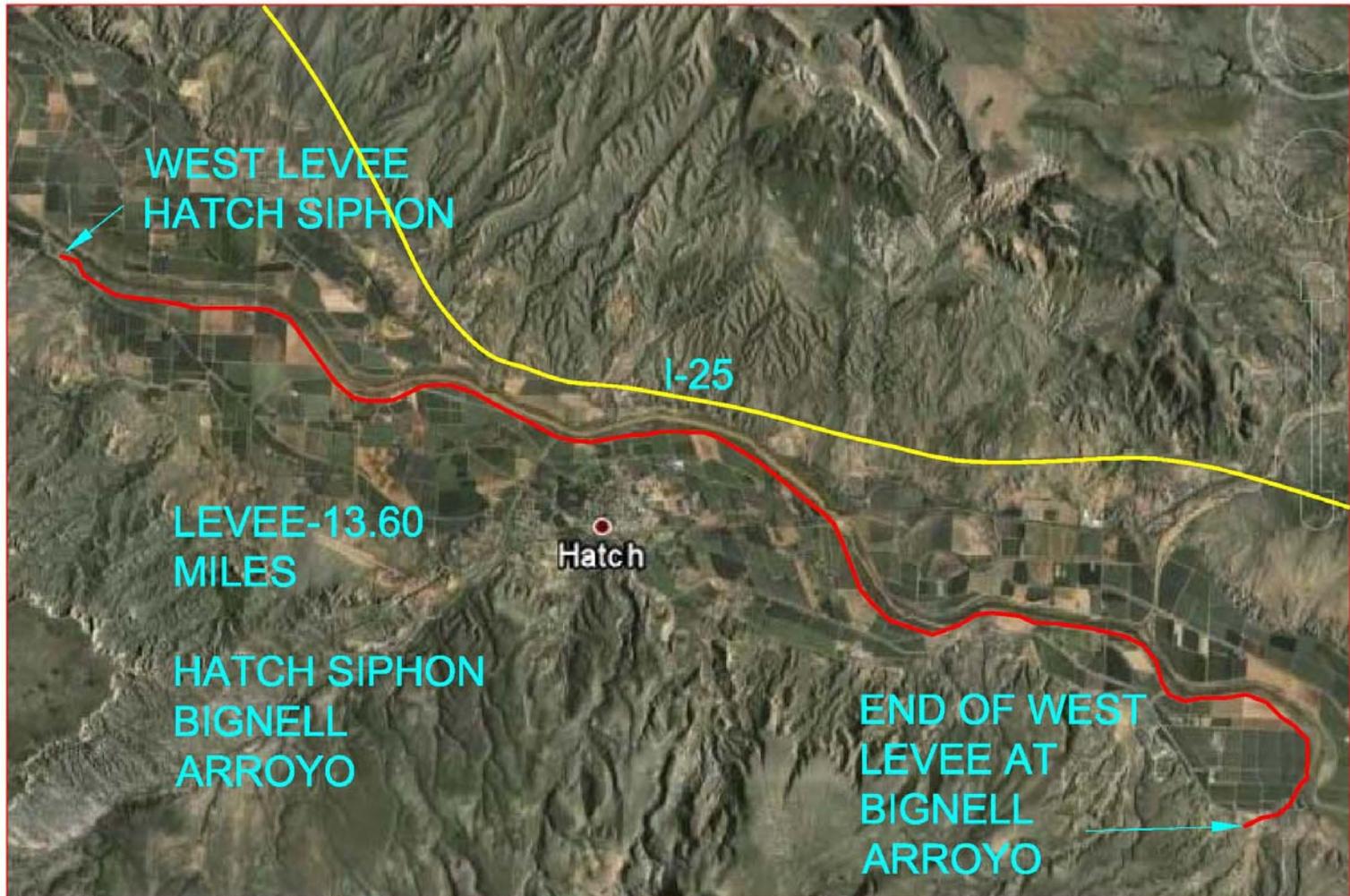


# EAST LEVEE

## Borderland Bridge to Electric Plant



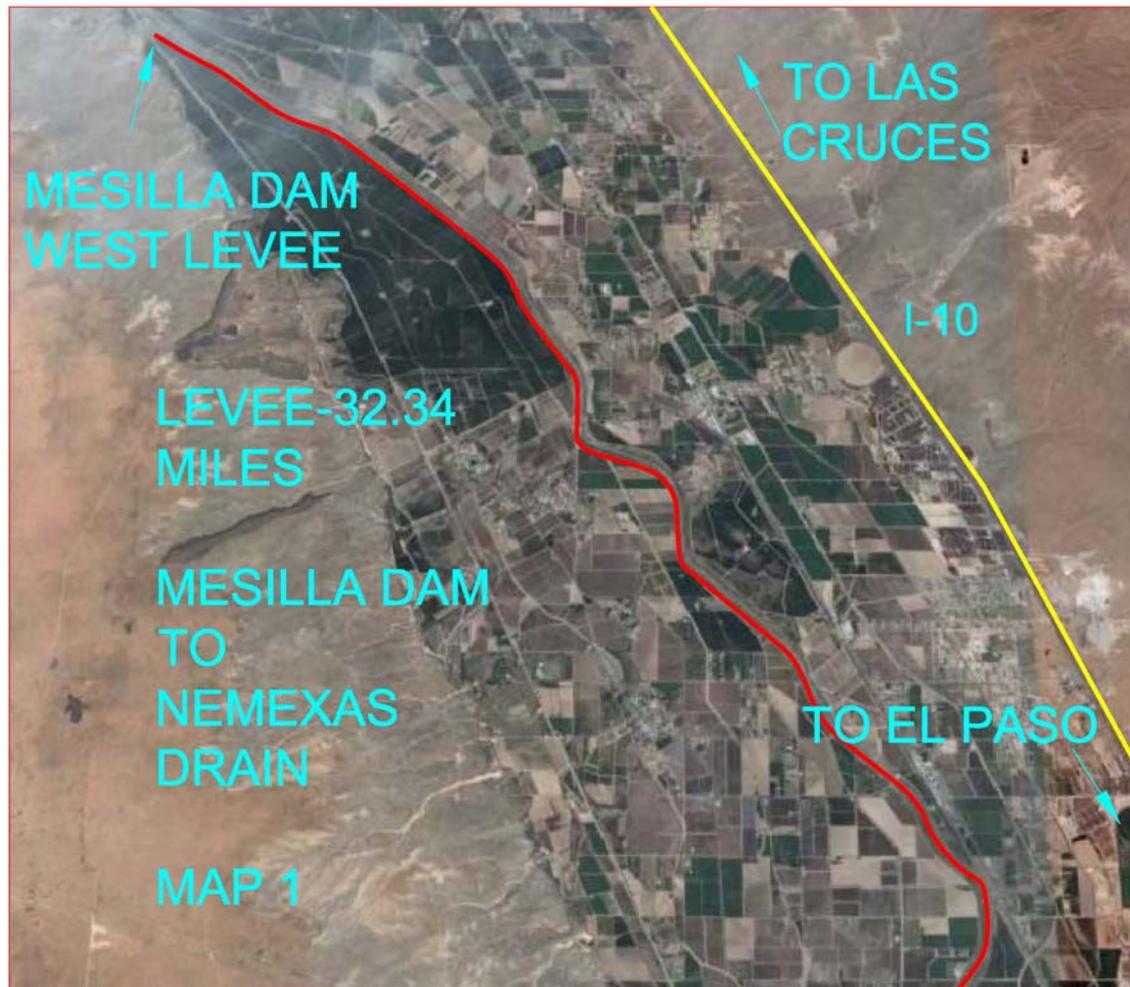
# WEST LEVEE HATCH SIPHON TO BIGNELL ARROYO



# 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

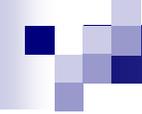


# LEVEE ENHANCEMENT EQUIPMENT



# LEVEE ENHANCMENT EQUIPMENT ON LEVEE





# 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

James Orwat

800 North Loop 288

Denton, Texas 76209

940-898-5302 Voice

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# 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

# INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO



## Contact Information

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