

# INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO



Upper Rio Grande Flood Control Project

Levee Improvements

February 4, 2008

# 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

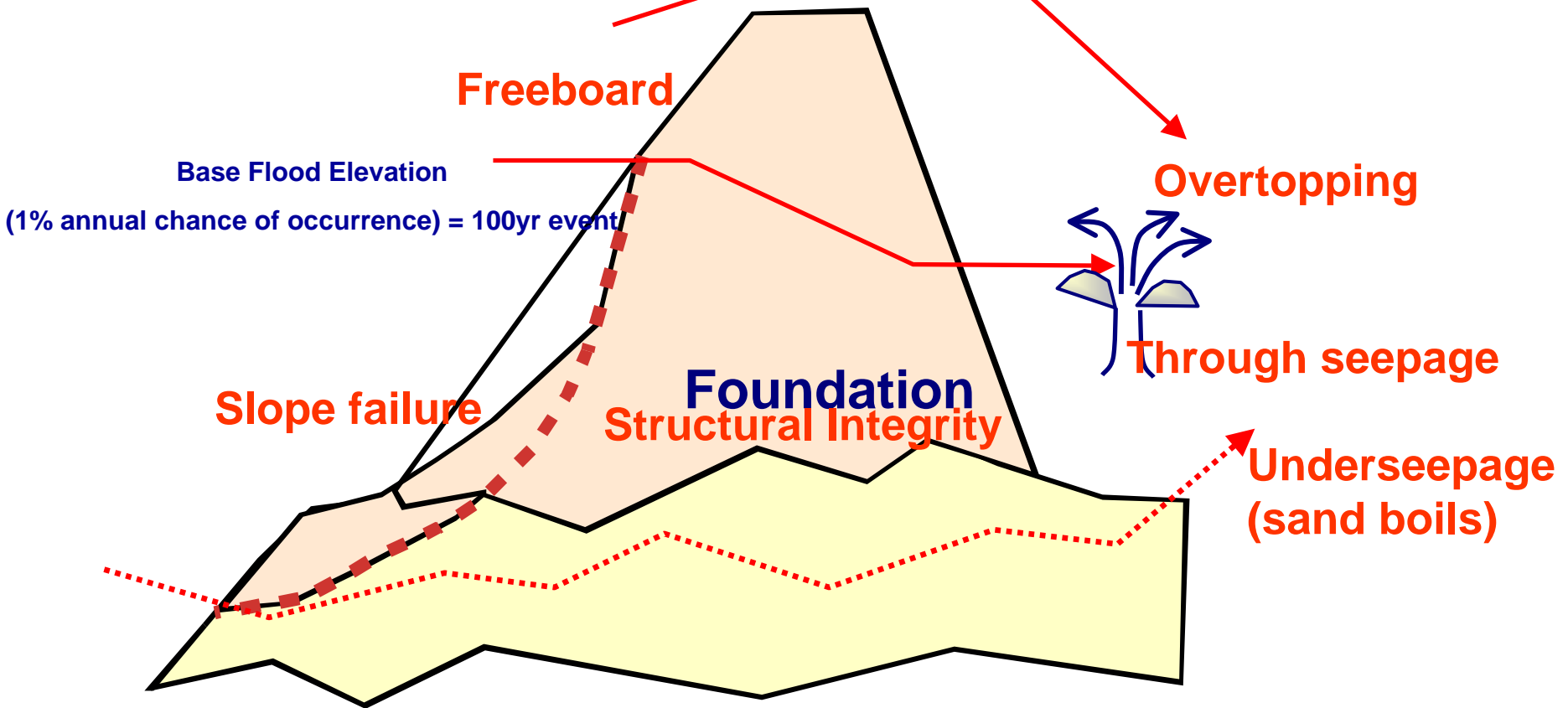


# Levee Terminology

River side

Levee

Land side



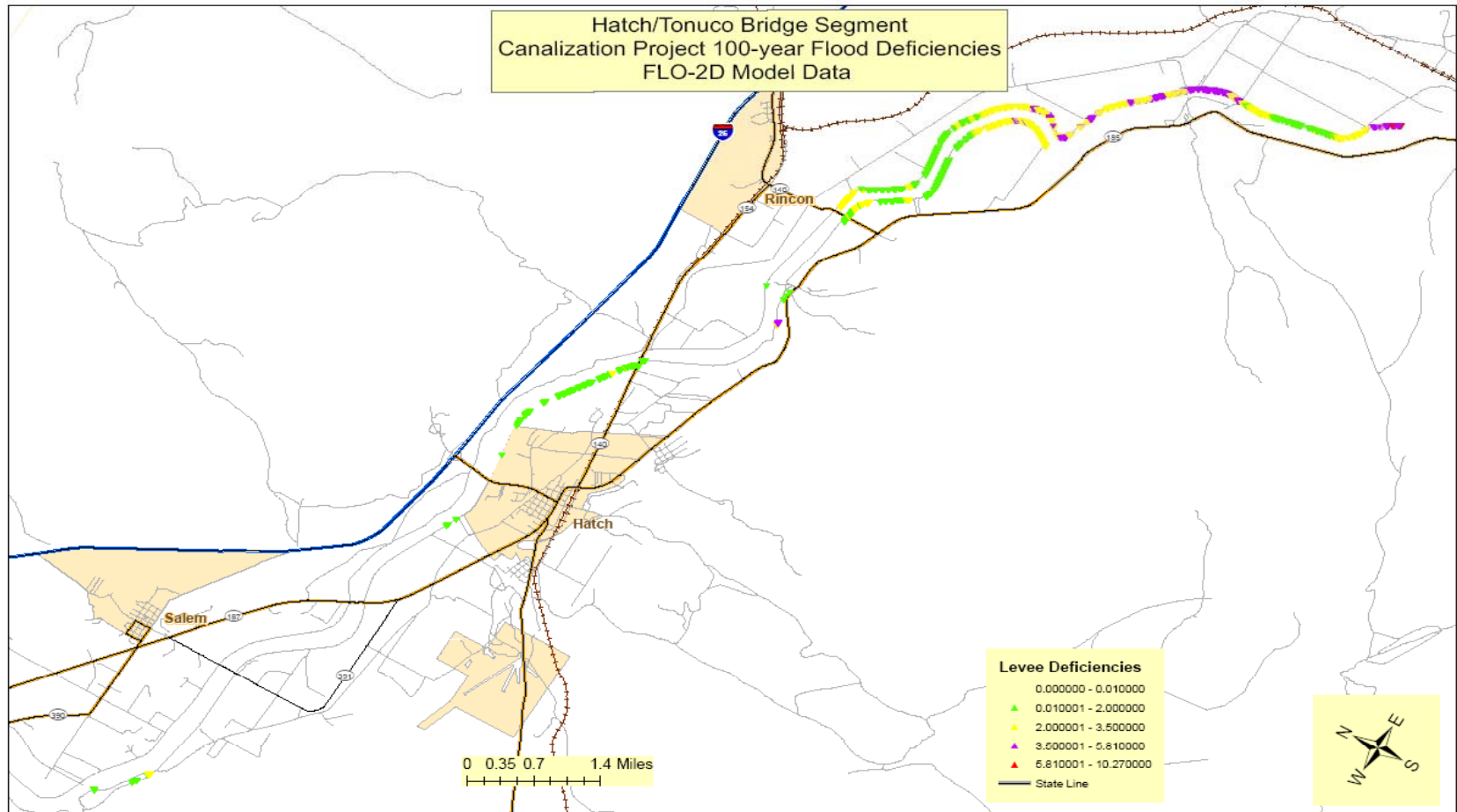
# Levee Status – Doña Ana County

- Structural integrity is acceptable.
- Levee height is deficient for 38 miles in Doña Ana County

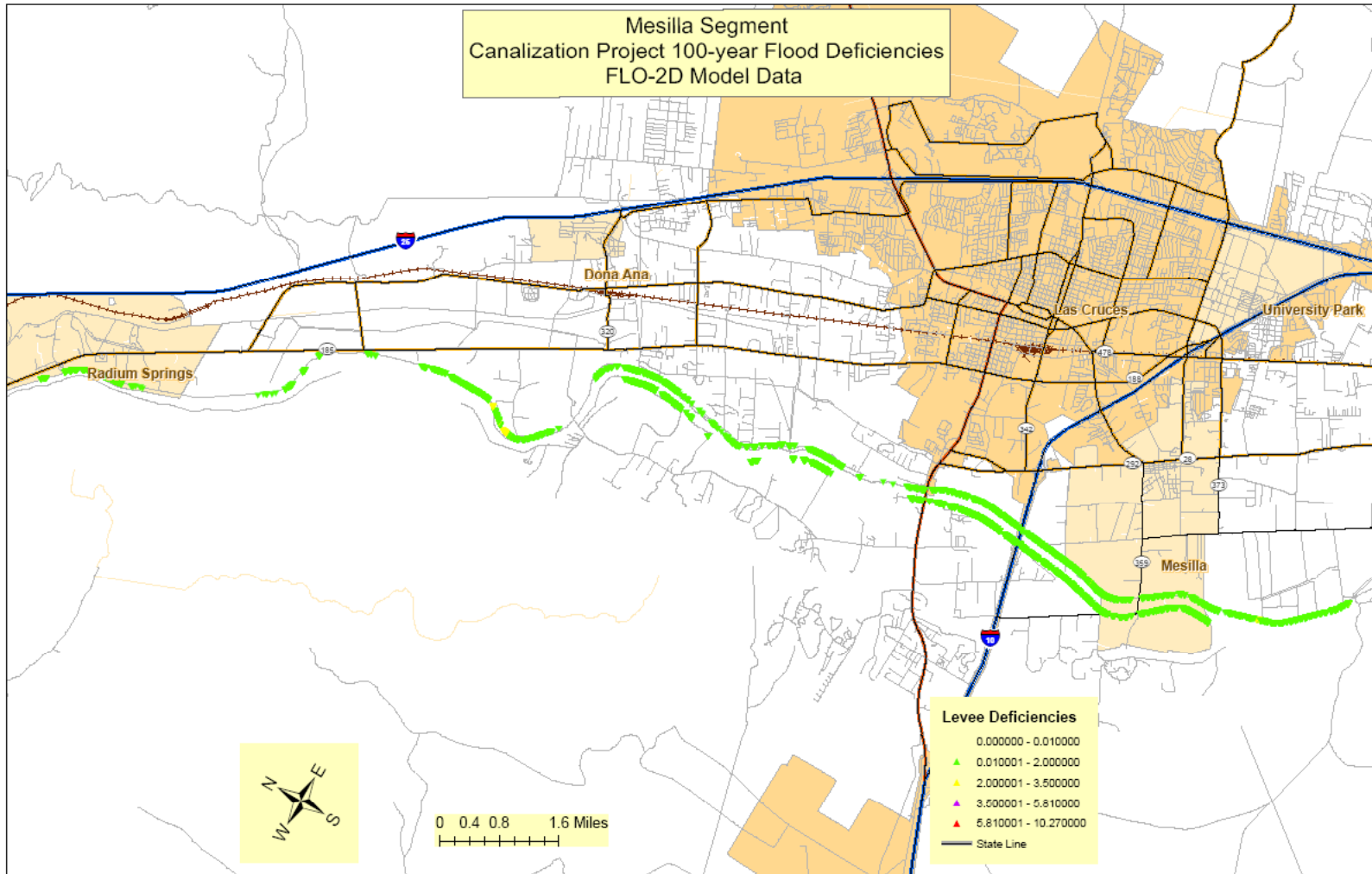
# Levee Status – Doña Ana County

- USIBWC proposes to raise levees:
  - Hatch/Rincon/Tonuco Bridge area – 10.48 miles
  - Mesilla Valley – 11.55 miles
  - Vado to American Dam – 16 miles in New Mexico and 13 miles in Texas

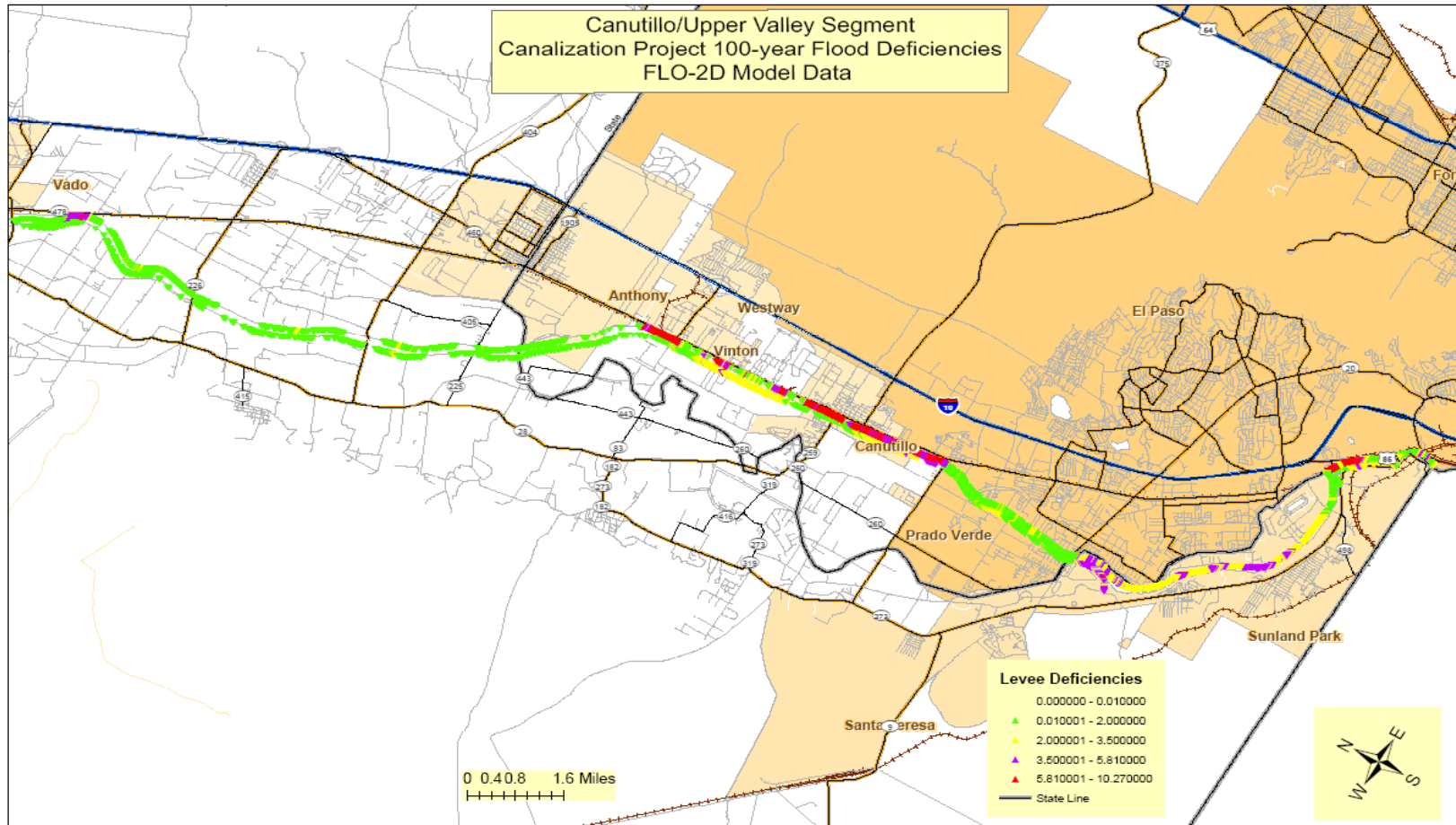
# Hatch/Tonuco Bridge Segment



# Mesilla Segment



# Canutillo Upper Valley Segment





# Flood Mapping – Doña Ana County

- 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
- USIBWC levees were not overtopped in 2006

# Flood Mapping – Doña Ana County

- FEMA will map flood risk as if the levees did not exist at all
- FEMA has a public appeal and protest process
- USIBWC has completed state-of-the-art Flow 2D modeling to estimate flood water surface elevation
- USIBWC believes FEMA's model may overestimate flood risk



# Funding and Priorities

- Funding – \$11.7 Million H.R. 2764 “Consolidated Appropriations Act 2008”
- Priority in New Mexico due to density of development/cost-benefit
- Sediment removal to be accomplished using annual O & M funding through FY 2010
- Funding required to develop more accurate inundation model

# Upper Rio Grande Levee Work Planned for 2008

- Geotechnical Studies
  - Phased Geotechnical Studies from Percha Dam to International Dam
- Levee Enhancement
  - Selden Canyon Proceeding Downstream to Mesilla Dam enhancing levees with deficiencies from 0 to 2'
- Canutillo Studies and Coordination
  - Floodwall/New Levee studies
  - Coordination with County and Railroad authorities





# Levee Enhancement Rectification Project



# Levee Status – El Paso County

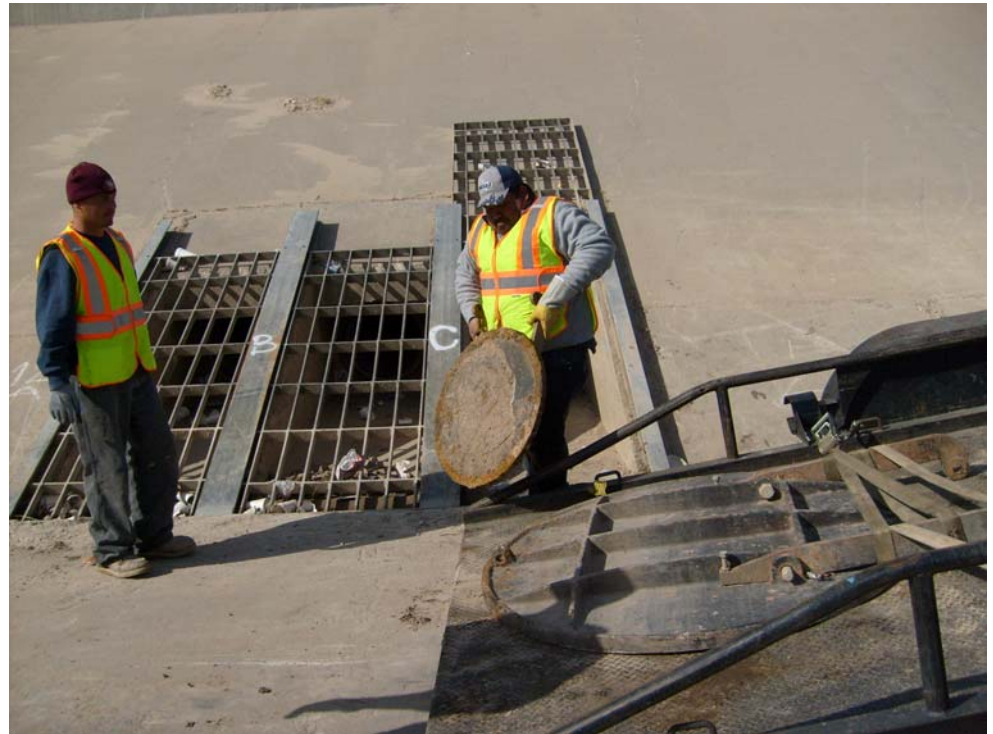
- Sealing Levee Openings
  - El Paso County Water Improvement District No. 1





# Levee Status - El Paso County

- Sealing Levee Openings
  - City of El Paso



# Environmental Considerations

- Rio Grande Canalization Project EIS has analyzed alternatives for environmental enhancements to accompany levee work
- Preferred Alternative has been identified in the Final EIS
  - Record of Decision is on hold pending outcome of the collaborative process between environmental groups and EBID
- Environmental enhancements subject to availability of federal appropriations

# INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO



U.S. Section

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