

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
UNITED STATES SECTION**

Canalization Project: Channel Maintenance

Rectification Project: Proposed Work

Picacho Flume Rehabilitation Project

**CITIZENS' FORUM
FEBRUARY 15, 2006**





Channel Maintenance Activities

BACKGROUND:

- 2004 – Identified areas / river reaches that required maintenance
- Summer 2005 – Coordination with Resource agencies
- Oct 2005 – Received USCOE Nationwide Permit
- Dec 2005 – Initiated maintenance work



Channel Maintenance Objectives

- Maintain efficient water deliveries to:
 - U.S. Irrigation Districts
 - City of El Paso
 - Mexico
- Improve Operations at Diversion Dams



Channel Maintenance Activities

- Bank Stabilization
- Arroyo Sediment Removal
- Arroyo Realignment
- River Channel Sediment Removal
 - Upstream of Diversion Dams



American Dam to Canutillo Bridge

- Sediment Removal @ American Dam
 - 70% Complete
 - Removed ~27,000 CY of sediment





Mesilla Dam to Mesilla Bridge

- Sediment Removal @ Mesilla Dam
 - 100% Complete, Removed ~175,000 CY of sediment
- Riverbank Stabilization
 - 75% Complete, Stabilized ~ 1.4 Miles



Mesilla Dam to Mesilla Bridge



12 - 19 - 2005

2 - 15 - 2005

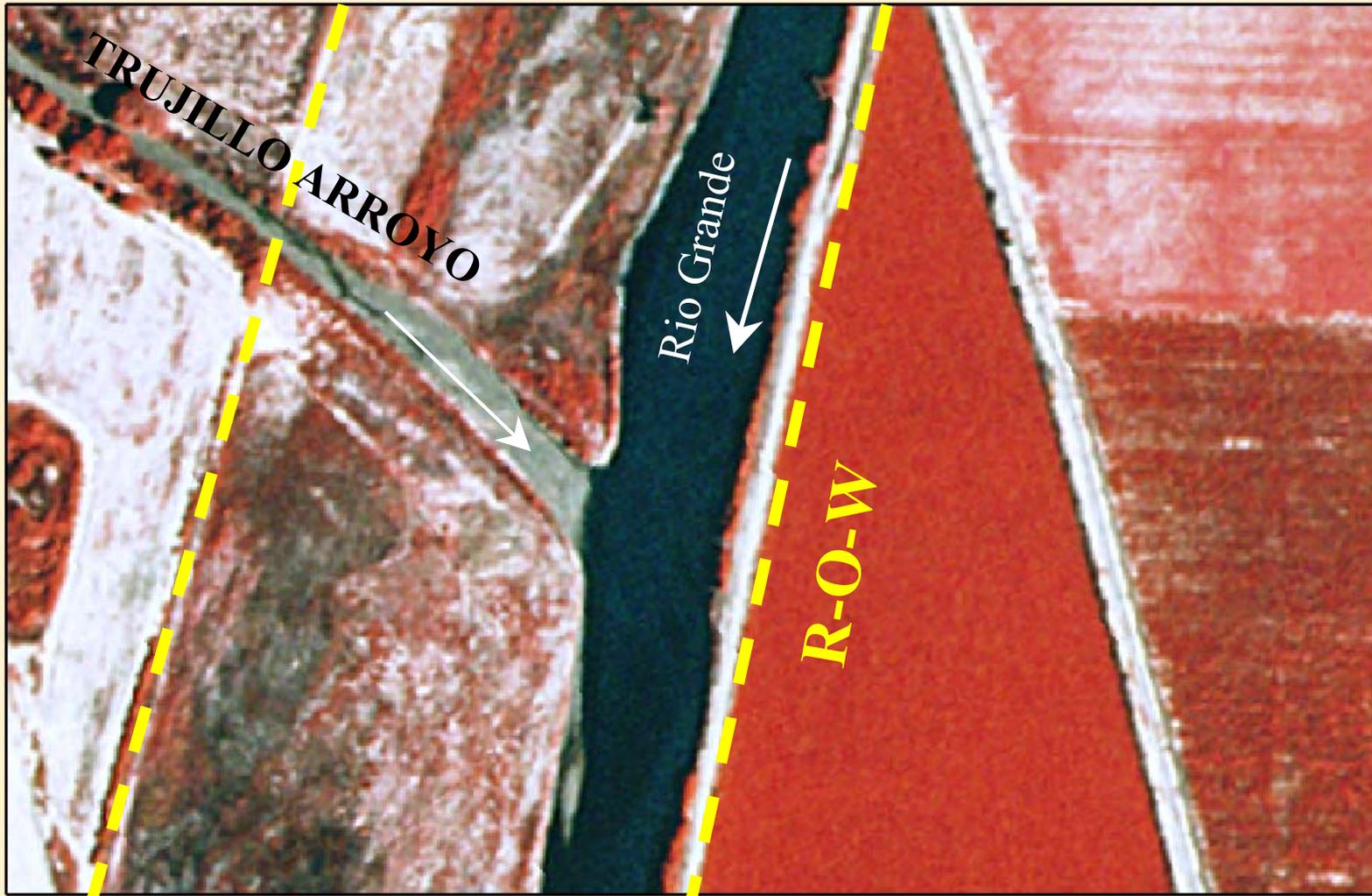


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Trujillo Arroyo

- Sediment Removal
- Arroyo Realignment



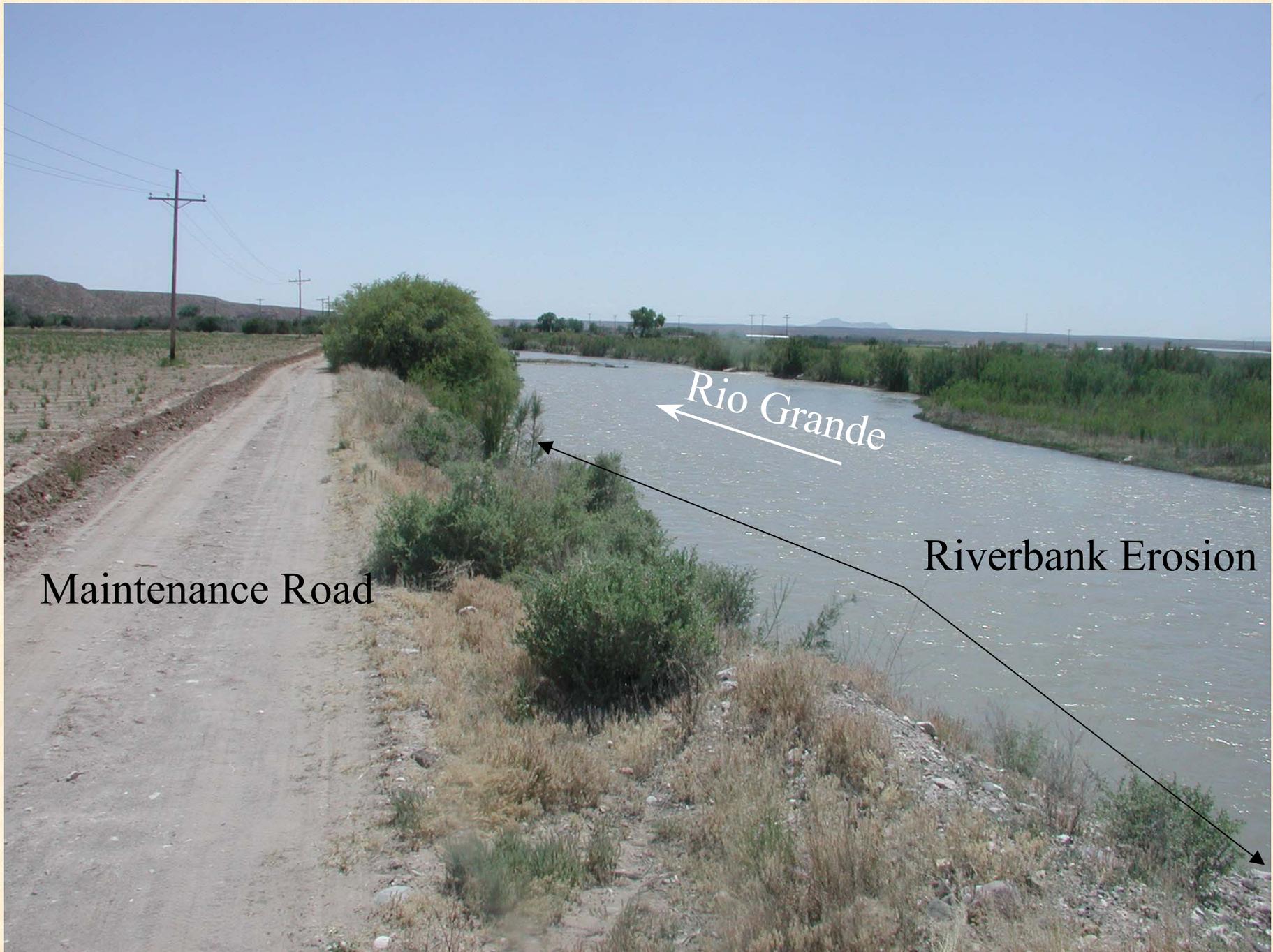
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New_Mexico_Central_FIPS_3002_feet
Projection: Transverse_Mercator
False_Easting: 1640416.9999997
False_Northing: 0.0000000
Central_Meridian: -106.2500000
Scale_Factor: 0.5666000
Latitude_Of_Origin: 31.0000000

Confluence of Trujillo Arroyo with the Rio Grande in Sierra County, NM

USBIAC GIS Program
April 25, 2005

Source: USBIAC Data Archive
Created In ArcGIS 9 using ArcMap

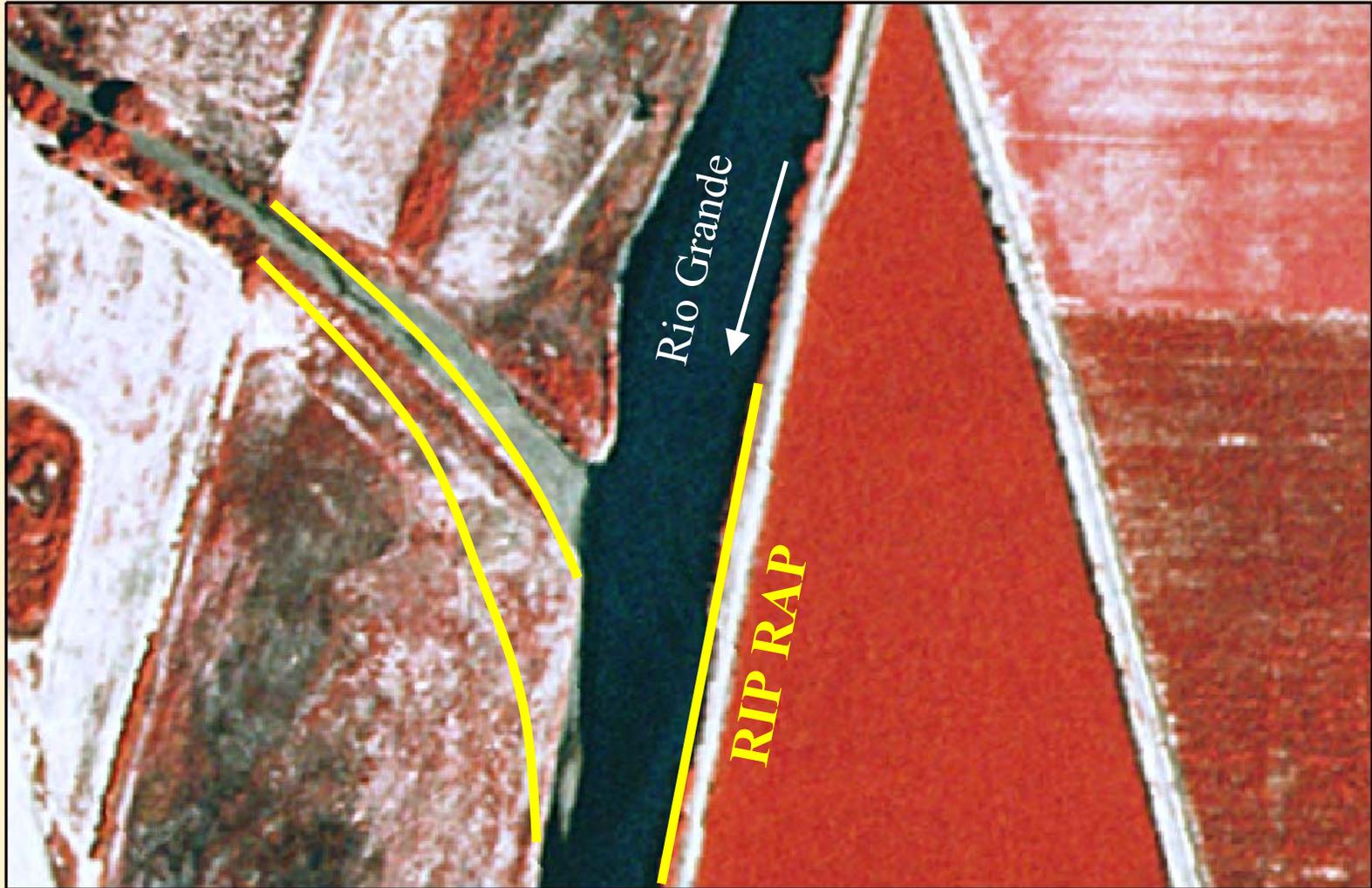




Maintenance Road

Rio Grande

Riverbank Erosion



NAD_1983_StatePlane
New_Mexico_Central_FIPS_3002_Feet
Projection: Transverse_Mercator
False_Easting: 1640416.999997
False_Northing: 0.000000
Central_Meridian: -106.250000
Scale_Factor: 0.999993
Latitude_of_Corrig: 31.000000

Confluence of Trujillo Arroyo with the Rio Grande in Sierra County, NM

USIBWC GIS Program
April 25, 2005

Source: USIBWC Data Archive
Created In ArcGIS 9 using ArcMap





Rio Grande Rectification Project



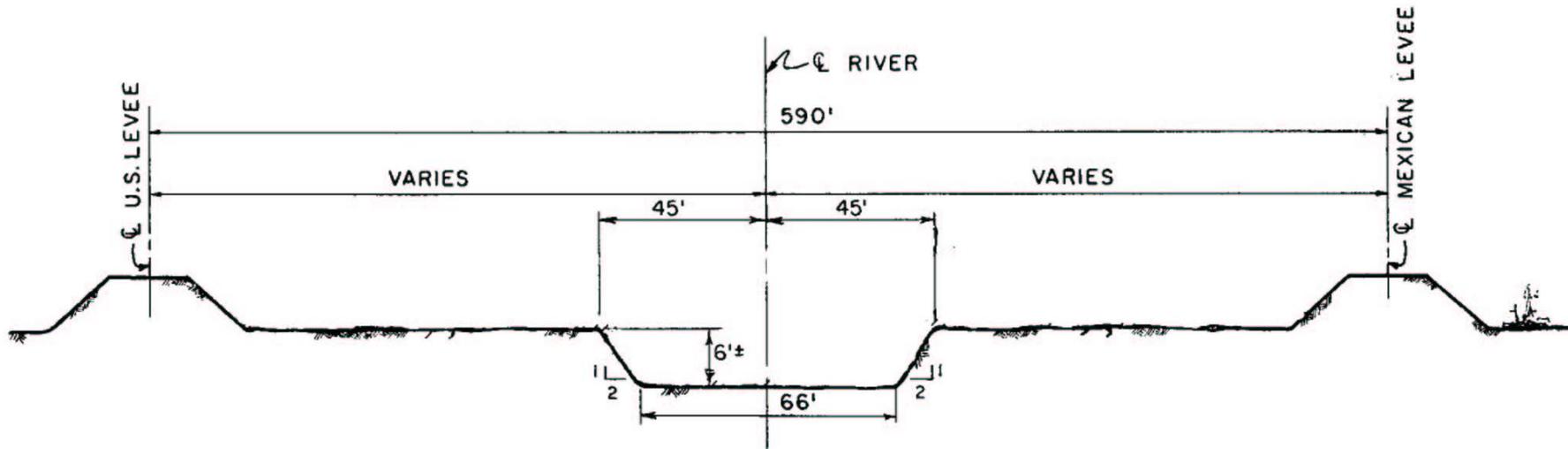
Rio Grande Rectification Project

PURPOSE:

- The project provides flood protection to urban, suburban and agricultural lands.
- Stabilizes the international boundary in the center of the channel.
- Provides irrigation and drainage benefits to agricultural lands in both nations as well as urban areas on both sides of the river.

U.S.

MEXICO



RECTIFICATION PROJECT

LOOKING D/S

INTERNATIONAL BOUNDARY & WATER COMMISSION
UNITED STATES & MEXICO
UNITED STATES SECTION

TYPICAL SECTION

IFB 87-10

EL PASO, TEXAS AUG. 1987

24175



Rio Grande Rectification Project

EXISTING CHANNEL CONDITIONS:

- Excess sediment & vegetation within channel
- Restricted stormwater / agricultural drainage into river.
- Reduction in flood control capacity.



Mexico

United States



8/26/99

View upstream from Fabens Int'l Bridge.

Mexico

United States



2/15/06

View upstream from Fabens Int'l Bridge.

United States

Mexico



8/2005 - View downstream from Guayuco Grade Control Structure



Rio Grande Rectification Project



Restoration Plan

1. Ongoing Consultations with Mexico
2. Environmental compliance
3. Perform comprehensive sediment removal.



Picacho Flume River Pier Rehab

Description

- Bridge structure supporting twin 42” dia. pipes
- Flume supported by 5 concrete piers & 8 steel bents
- Three concrete piers are located within channel



Problem Description



Degradation of river bed began to expose timber pile foundations that support the concrete river piers.



Rehabilitation Description



- Eliminate future deterioration/erosion to river piers by constructing the following:
- Two 48” dia. concrete caissons, both upstream and downstream of existing piers
- Cast a new concrete beam member beneath existing pier footing connecting the two new caissons





Status of Construction Phase

- Start Date: December 2005
- 85% Complete (Est. Completion date 3/1)



QUESTIONS?

