Rio Grande Project Operating Agreement – A State of New Mexico Perspective

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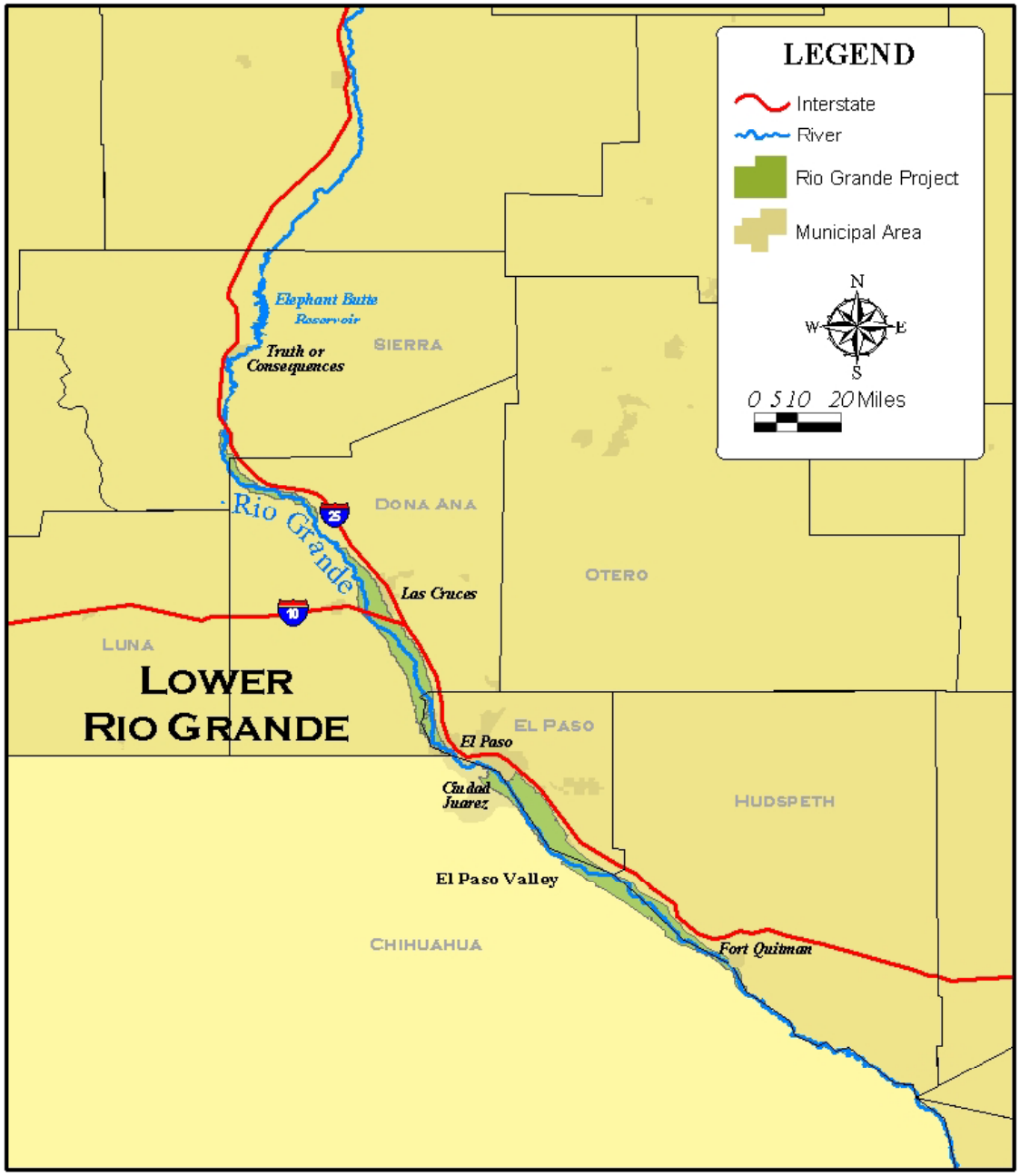
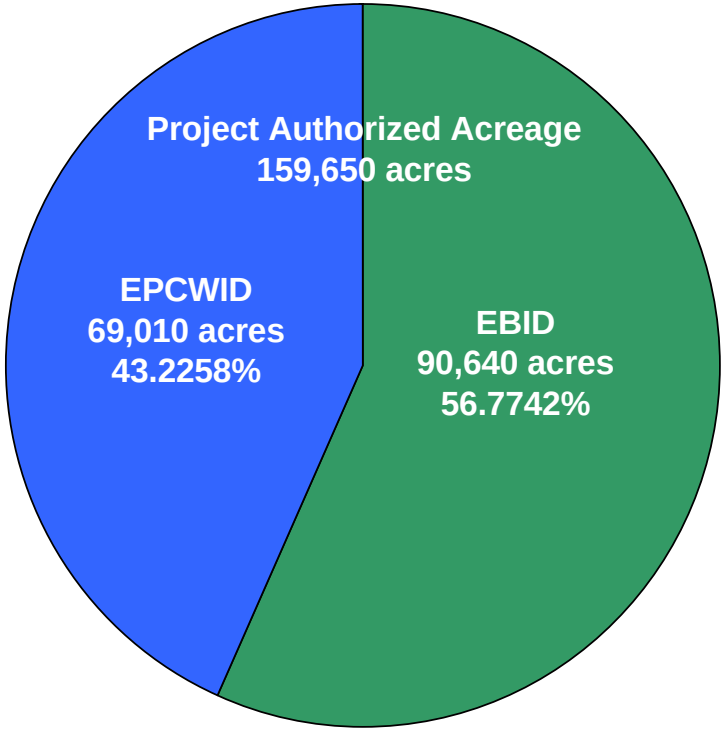
Reclamation Delivers Surface Water from Elephant Butte Reservoir to Irrigation Districts: EBID in NM & EP#1 in Texas



Historic Division of Rio Grande Project Water



Up until the early 1980's Reclamation ran the entire Project and worked to provide:

1. Delivery of Project Water in Proportion to the Irrigable Lands of the Project and,
2. In full supply years, 60,000 acre-feet per year to the Republic of Mexico

Graphic courtesy of Elephant Butte Irrigation District

Need for Agreement - Historic Dispute Driven By:

- Growing Demands for Water
  - Rapidly Growing Population
  - More “Permanent Crops”
- Concerns about Pumping of Groundwater
- Salinity issues
- **Less Surface Water**

2008 Rio Grande Project Operating Agreement

- Developed in Confidential Litigation Settlement Negotiations
- Parties:
  - Elephant Butte Irrigation District (EBID)
  - El Paso Water County Water Improvement District #1 (EPCWID)
  - United States Bureau of Reclamation

Benefits of 2008 Operating Agreement

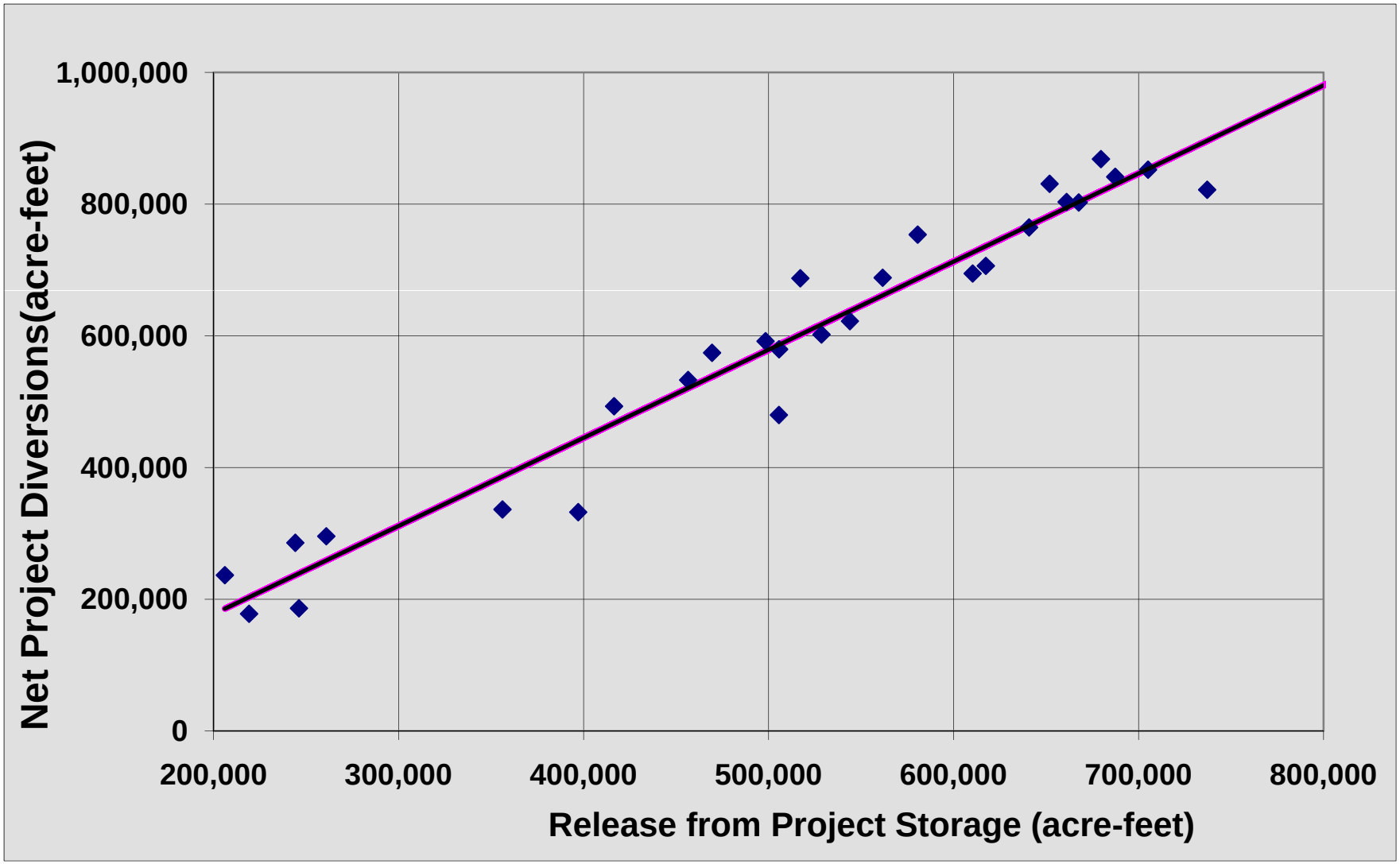
- Resolved on-going litigation
- Texas threat of Supreme Court Litigation has been greatly reduced
- Improved relationship between the Districts
- However, …

EBID's Allocation

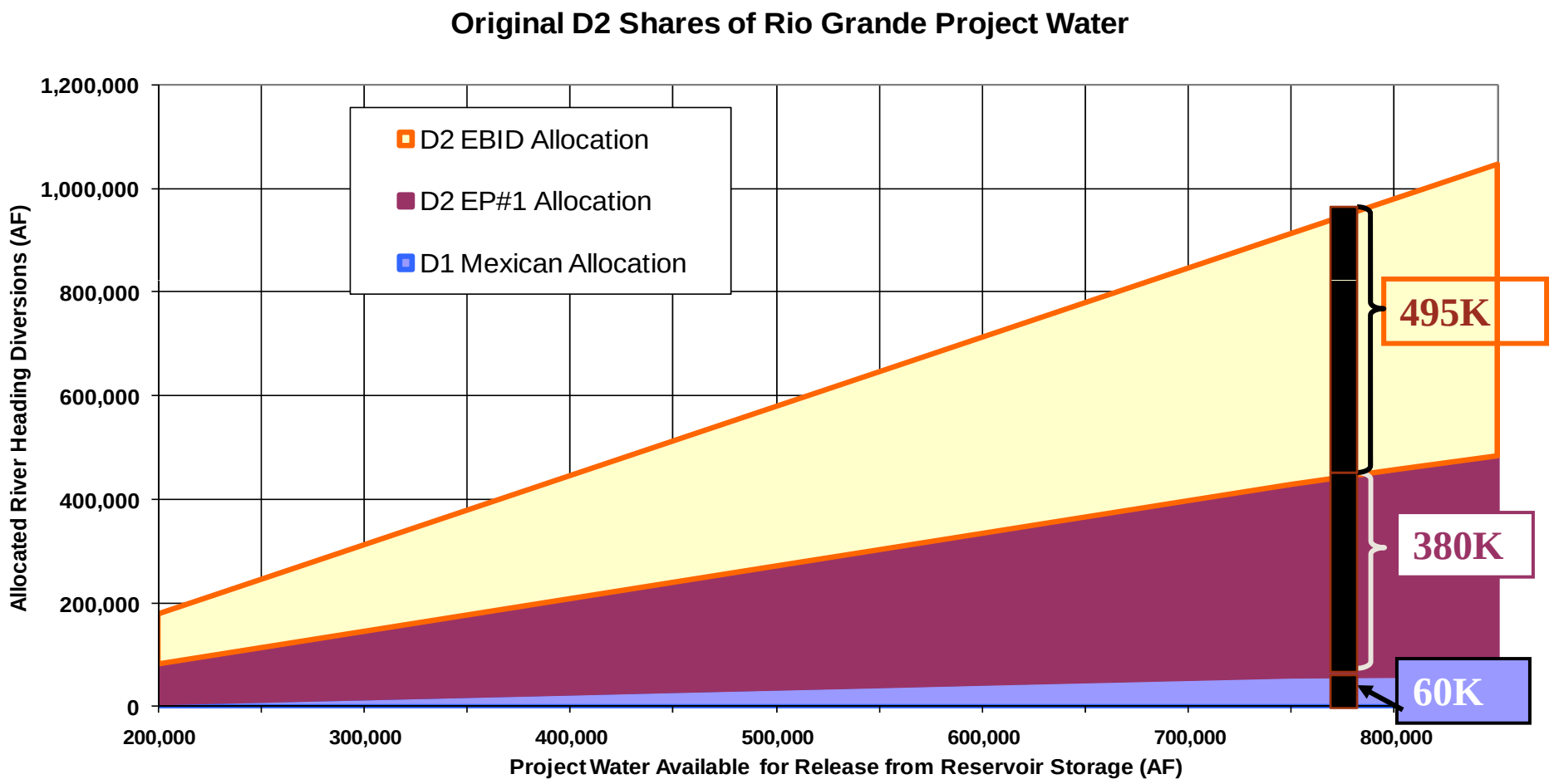
Year	Useable Project Water Available (Reservoir Storage) (Acre-feet)	Water Allocated to EBID for Diversion (Acre-feet)
2001	1,035,000*	495,000
2002	850,000*	495,000
2008	1,118,000	321,000
2009	1,010,000	346,000

Information taken from Reclamation's Project Water Allotment Tables
*2001 and 2002 Usable Project Water values calculated by OSE staff

D2 Curve with D2 Data (1951-1978)

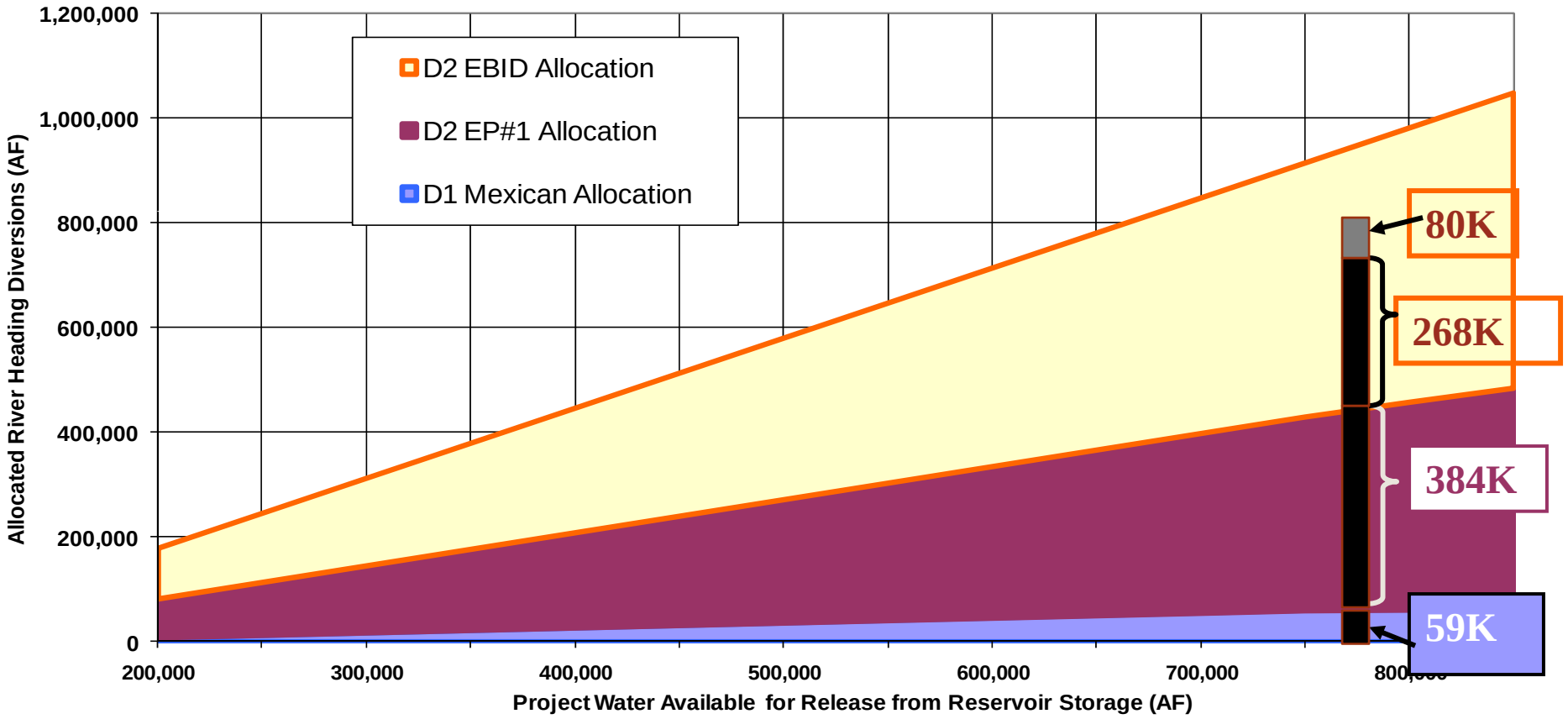


D2 Allocation



Amount Available at Canal Headings: Mexico get 60K (in full supply conditions)
EBID and EP#1 split the rest 57:43

2009 Allocation



ALL reductions in apparent Project Efficiency are borne by EBID, regardless of their cause.

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Why the Difference? What is Going On?

- Natural hydrologic variation.
- Groundwater pumping in the Rio Grande Project Area.
  - Reduces EBID's Allocation
- Accounting Changes
  - Reduces EBID's Allocation

- Other?
  - Changes in measurements (who and how)
  - Structural Changes?

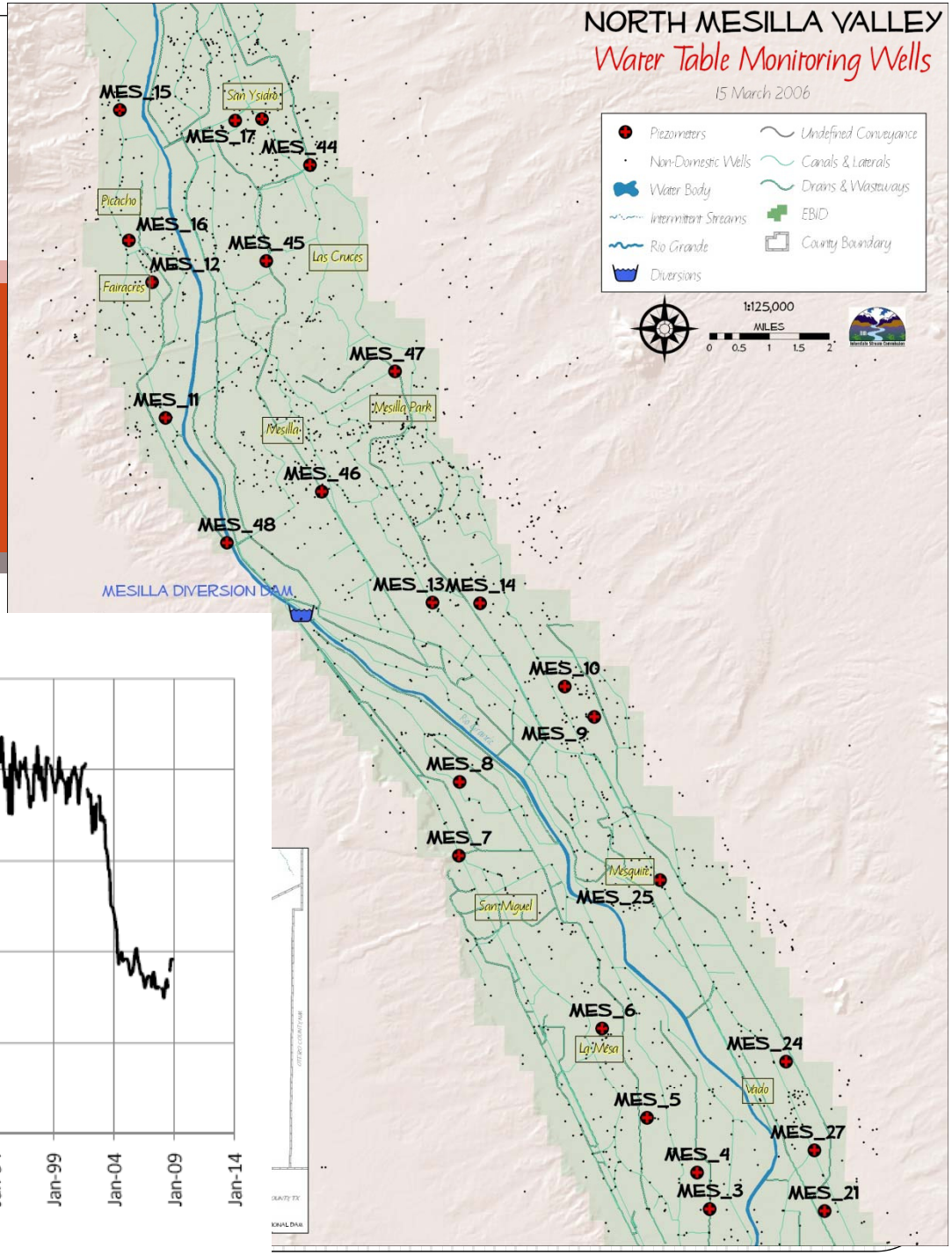
Physical Effects of this Change

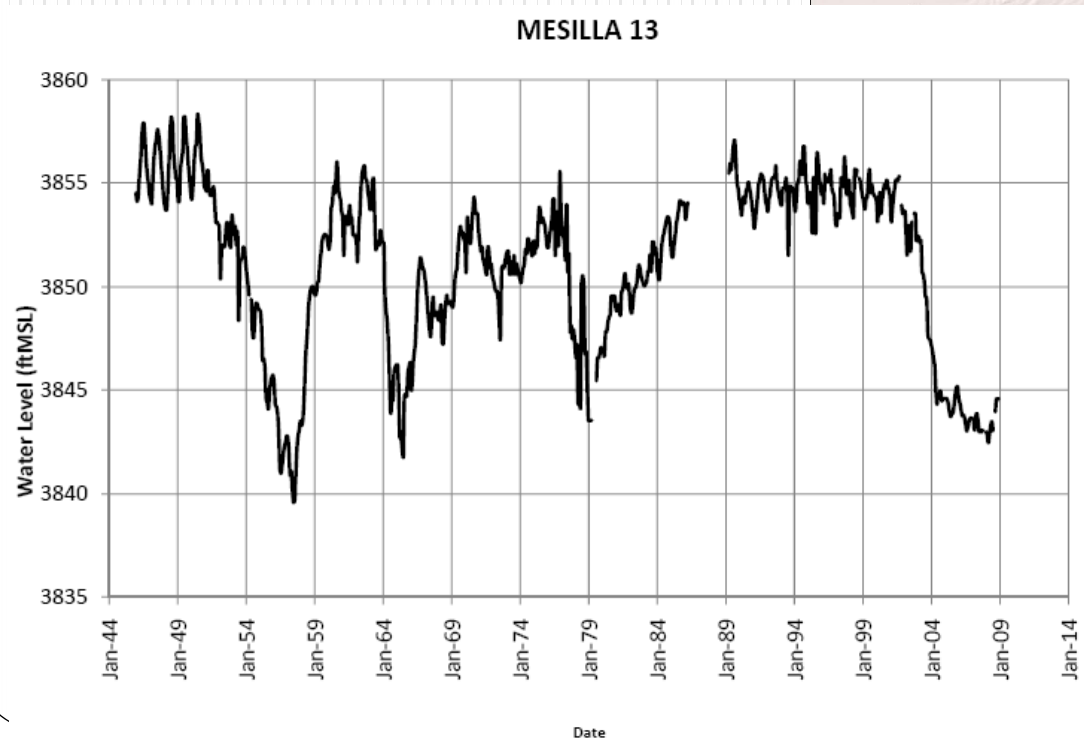
- Less surface water diverted by EBID and applied to fields in New Mexico
- Less recharge to aquifer from surface water
- More groundwater pumping needed to supply crops

Related Issues?

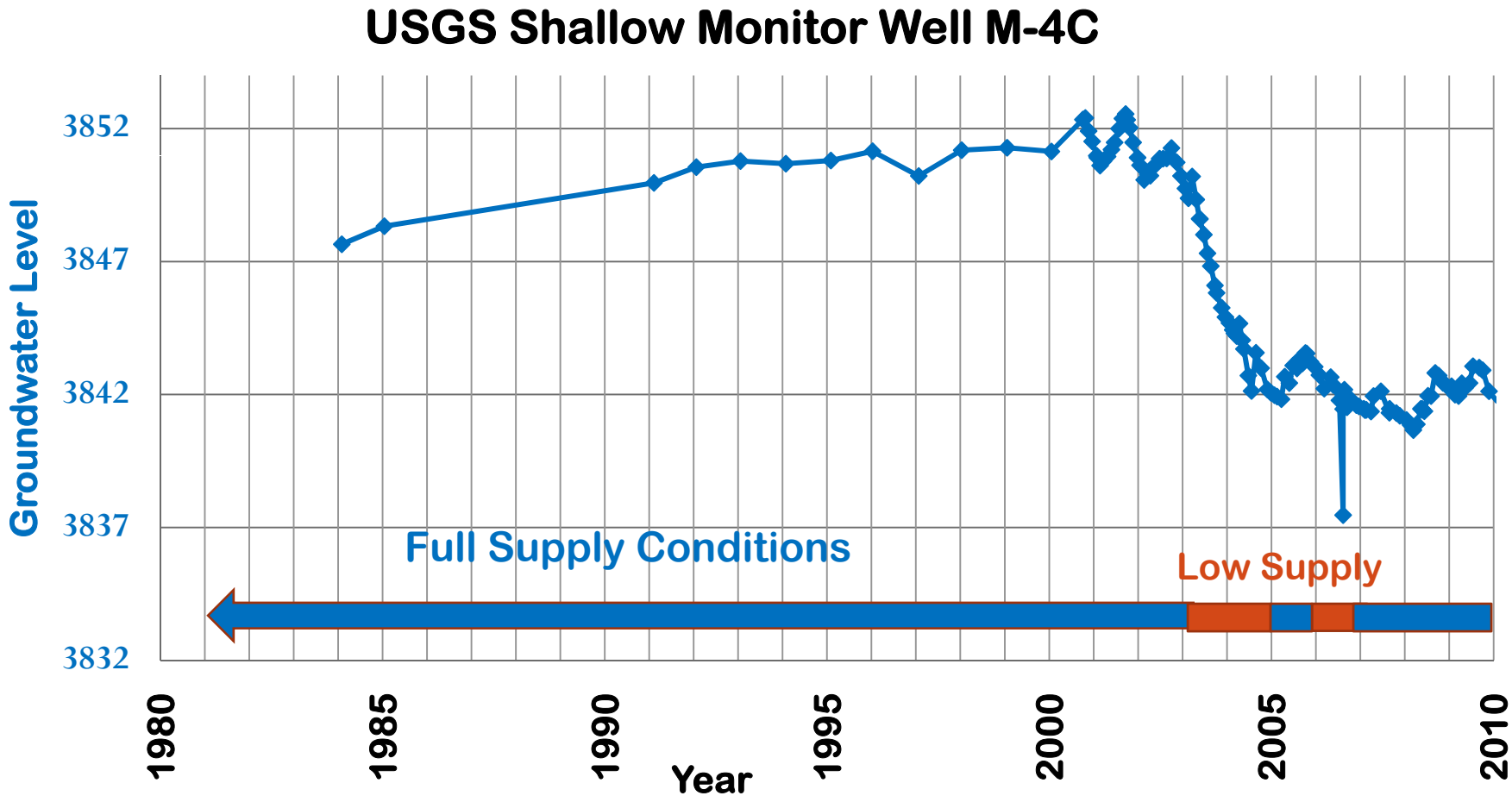
- Groundwater levels have not recovered since the drought of the early 2000's
- Drain flows have not recovered to pre-drought levels

Shallow Water Levels in Aquifer

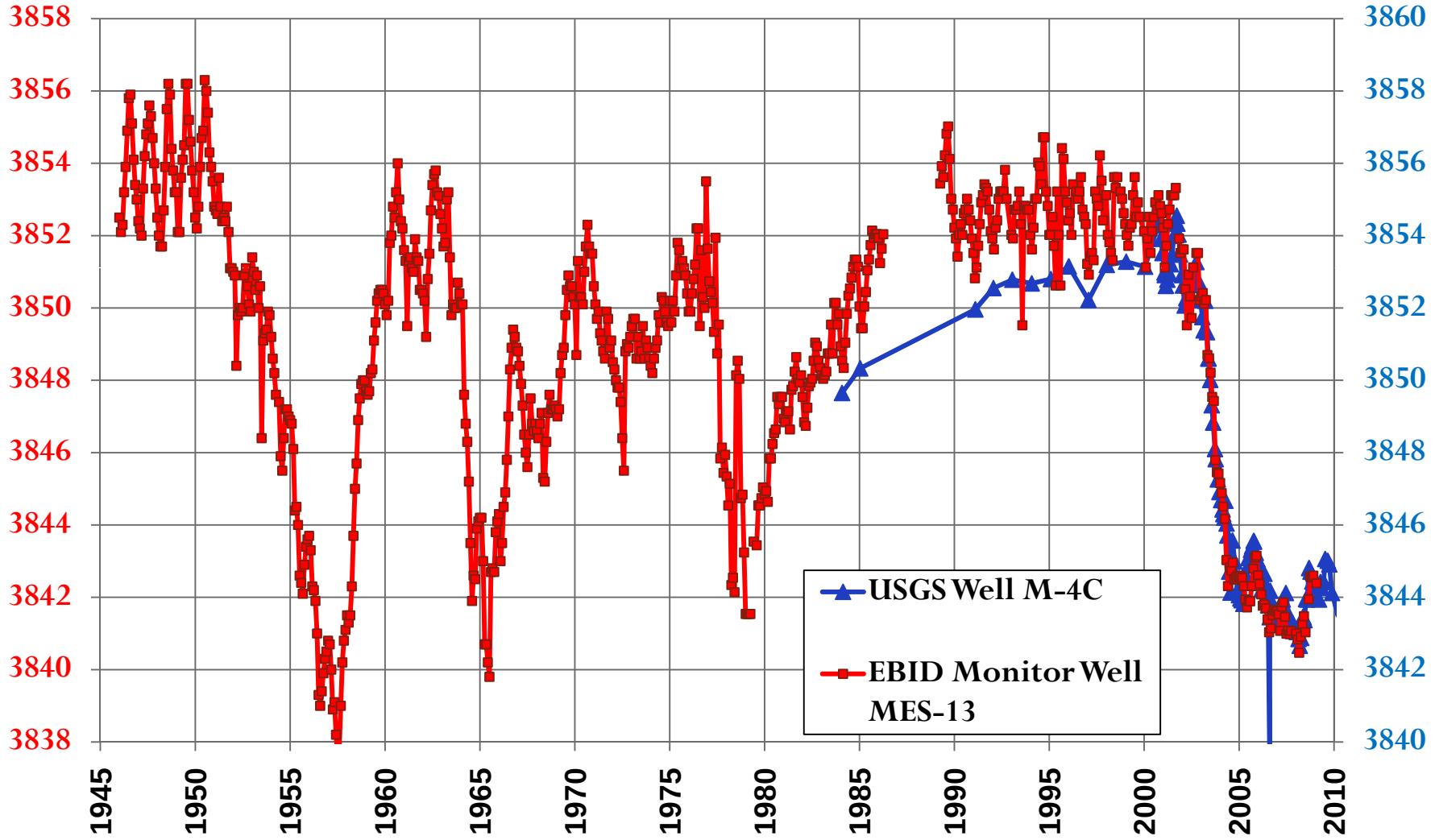




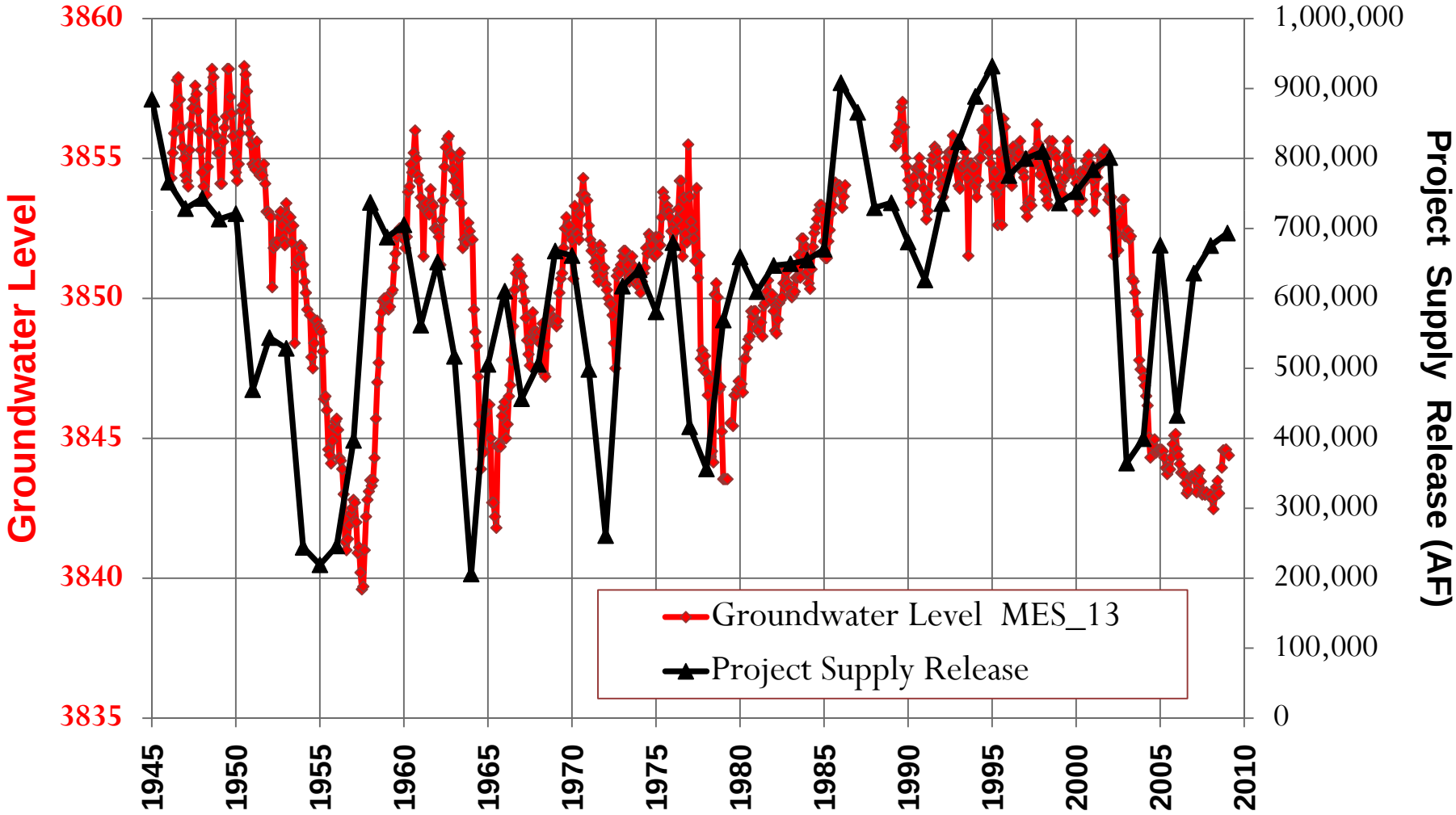
Shallow water levels have not yet recovered following low Project Supply Condition in the early 2000's



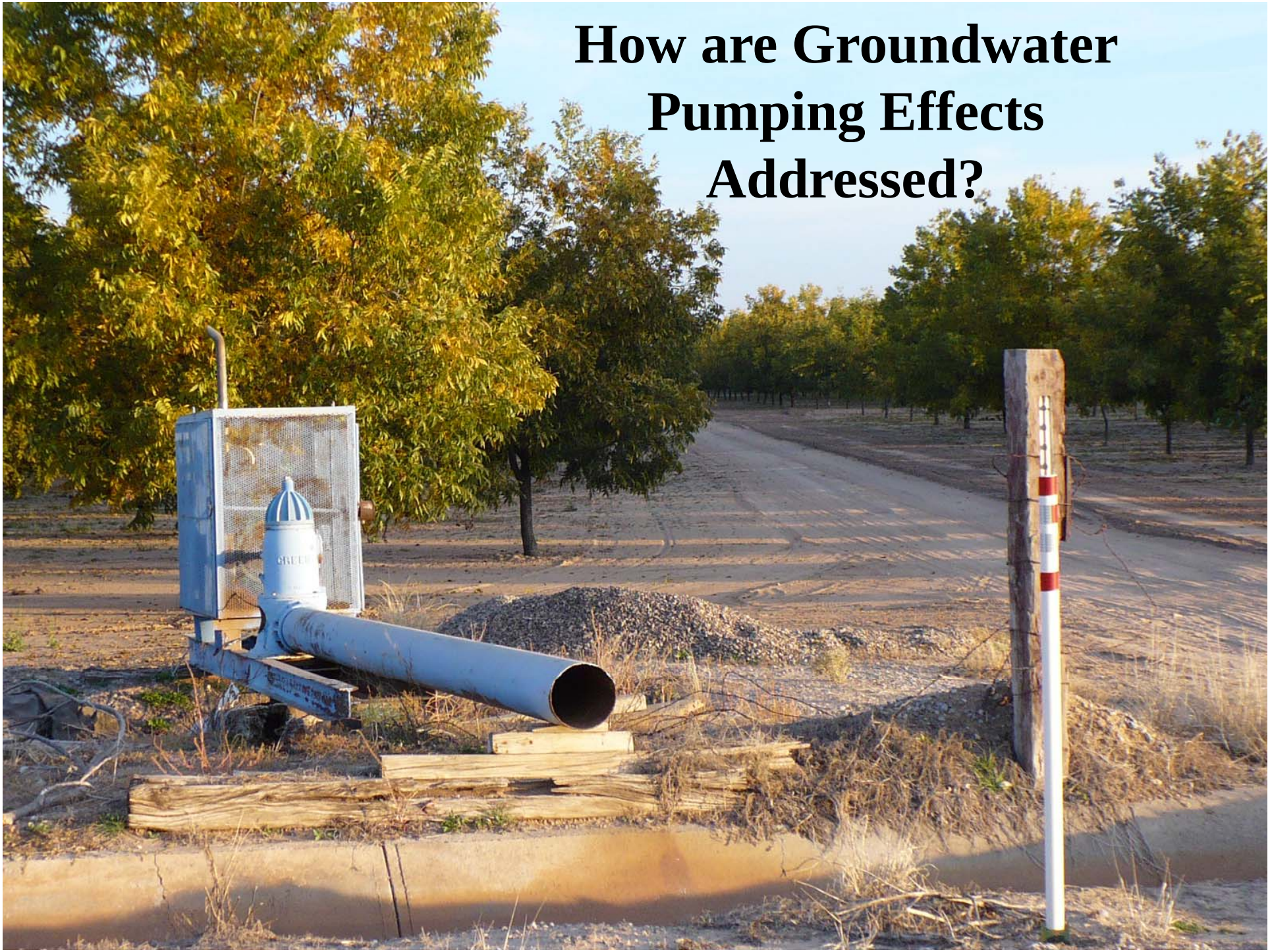
Nearby EBID Shallow Monitor Well with long period of record



Groundwater Levels Correlate with Project Supply



How are Groundwater Pumping Effects Addressed?



How are Groundwater Pumping Effects Accounted?

- Currently, EBID's allocation is reduced for all deviations from the D2 Curve, no matter the source.
- As a result, New Mexico groundwater pumping effects are addressed implicitly.
- In addition, EBID is paying for Texas groundwater pumping impacts.
- New Mexican's should not pay for Texas groundwater pumping impacts.

For the Agreement to be Sustainable:

- Texas pumping needs to be offset by Texas;
- Reasonable caps must be placed on annual diversions;
- The project allocation methodology must reflect actual system efficiencies;
- Better transparency in operations is needed.

What is New Mexico Doing?

- Continuing to study Project operations data.
- Using surface water and groundwater models to simulate future operations.
- Continuing discussions with the Districts and Reclamation.
- Continuing discussions with Colorado and Texas about potential Rio Grande Compact issues.