

# Rio Grande Watermaster Program Overview

Water Availability Division  
Office of Water  
Texas Commission on Environmental Quality



Presented by: Georgina P Bermea



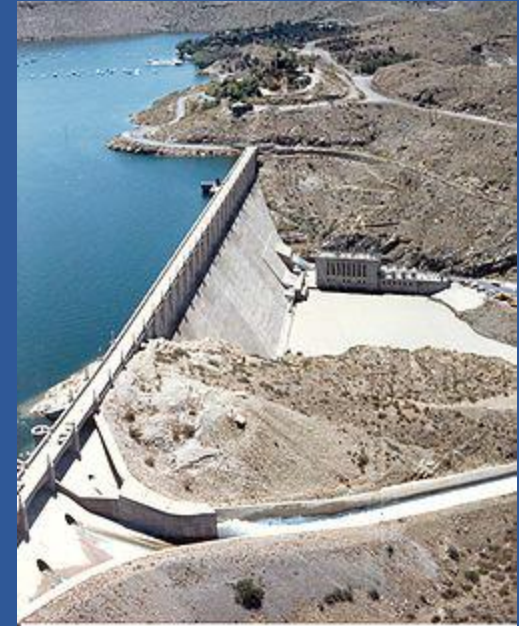
# Rio Grande River (Rio Bravo)





# Dams Upstream of Amistad

Elephant Butte Dam



Cochiti Dam



Caballo Dam



Located in  
New Mexico

# Amistad International Dam

- Located west of Del Rio in Val Verde County
- Operated and maintained by International Boundary and Water Commission (IBWC) and its Mexican counterpart, CILA



Before 2010



After hurricane Alex (2010)



# Falcon International Dam

- Located at the intersection of Starr county and Zapata county
- Operated and maintained by the IBWC and its Mexican counterpart, CILA



Before 2010



After hurricane Alex (2010)

# Anzalduas Dam

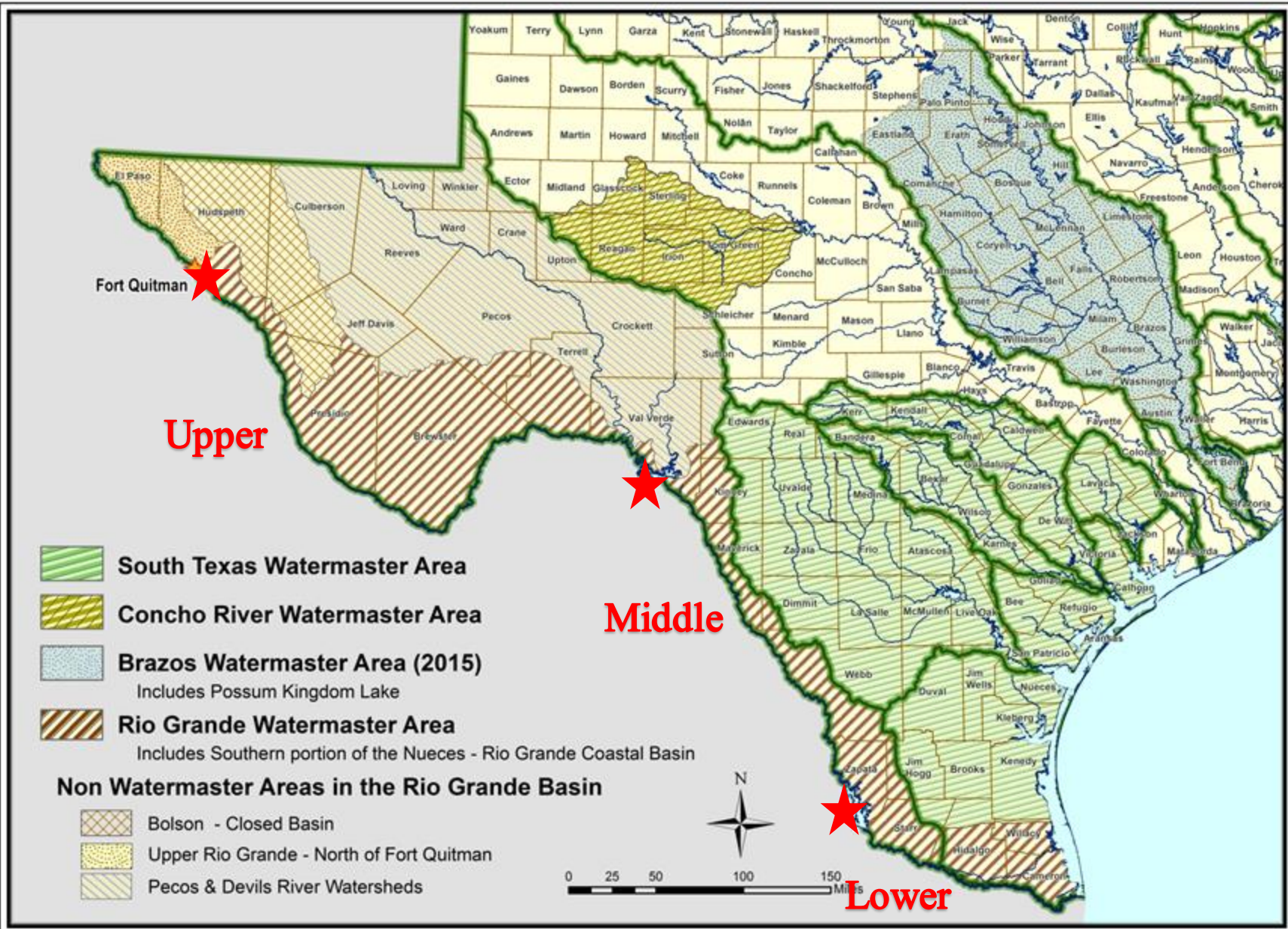
- Located in Hidalgo County
- Operated by the IBWC and its Mexican counterpart, CILA





# Rio Grande Watermaster Program

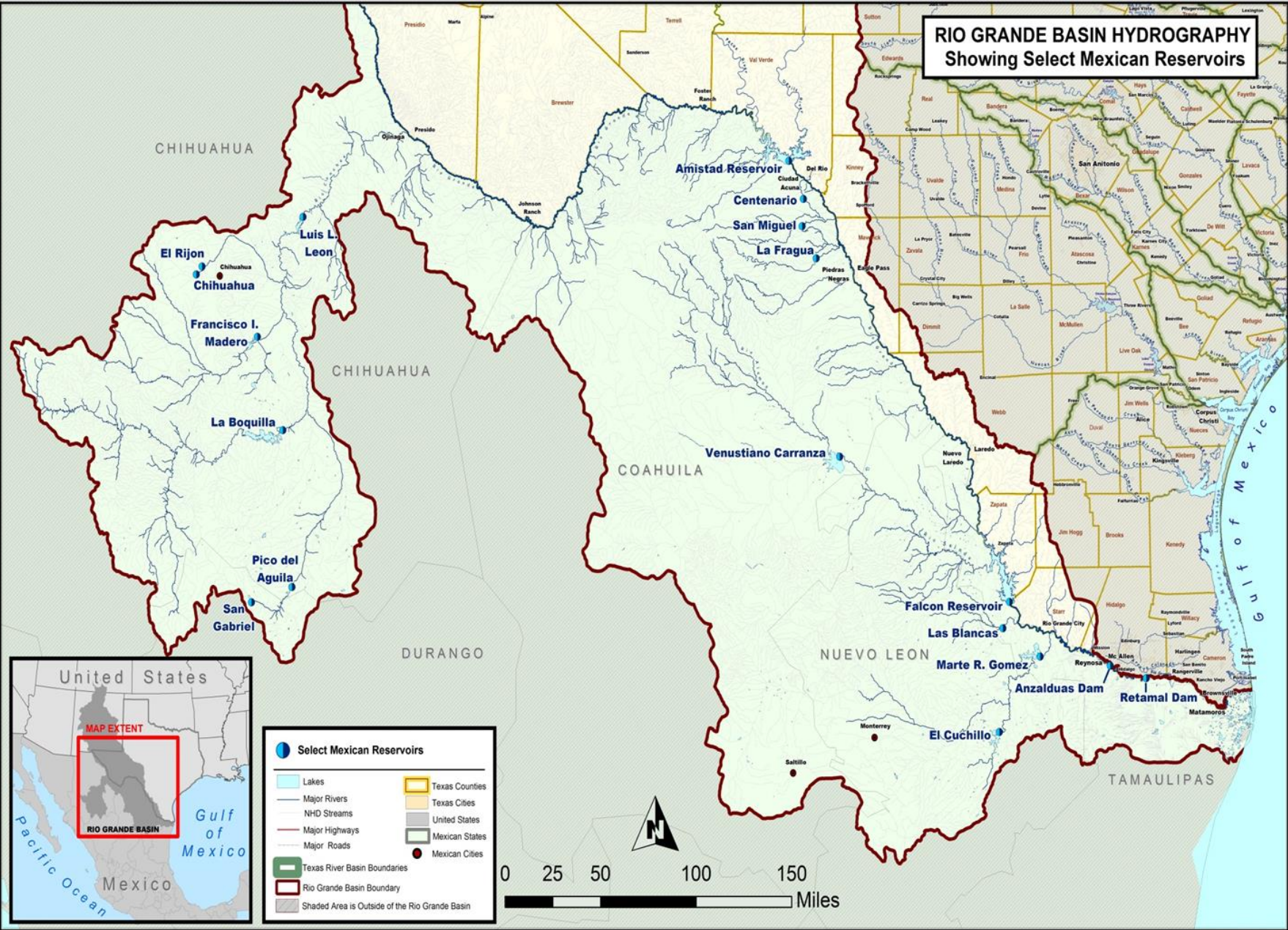
- The Valley water suit between the State of Texas vs. HCWC&ID No. 18 was finalized in 1971 resulting in the final adjudication of the Lower Rio Grande water rights and appointment of a Watermaster.
- The final adjudication of the Upper Rio Grande water rights was completed in 1977
- The final adjudication of the Middle Rio Grande Water rights was completed in 1983



# Texas Watermaster Areas



# RIO GRANDE BASIN HYDROGRAPHY Showing Select Mexican Reservoirs



Select Mexican Reservoirs	Texas Counties
Lakes	Texas Cities
Major Rivers	United States
NHD Streams	Mexican States
Major Highways	Mexican Cities
Major Roads	
Texas River Basin Boundaries	
Rio Grande Basin Boundary	
Shaded Area is Outside of the Rio Grande Basin	



# Major Rules and Regulations

## 1944 Water Treaty Between Mexico and the United States

- Enforced by IBWC for the United States

## Texas Water Code Chapter 11

- Texas Statute in dealings with water

## Texas Administrative Code

- State and agency rules and their respective categories.  
Watermaster Program deals with chapters 295, 297 and 303



# Rio Grande Watermaster Program



Responsible for allocating, monitoring, and controlling surface waters in Rio Grande Basin



Jurisdiction covers 1173 miles of the Rio Grande  
Administers approximately 1600 Water Right Accounts.



11 Total Staff Members  
3 in Eagle Pass, TX  
7 in Harlingen, TX  
1 in Laredo, TX

# Rio Grande Watermaster Program

## Major Water Uses

- Municipal
- Industrial
- Domestic
- Irrigation
- Mining
- Recreation
- Hydroelectric
- Livestock



# Watermaster Functions

- River Operations
- Water Accounting
- River Surveillance

# River Operations

- Calculations of the Water Demand
- Communication with IBWC on a daily basis on river conditions and request water releases from Amistad, Falcon and Anzalduas dams
- Communication with Water Right holders on daily basis
- Monitor IBWC gaging stations to track flows



# Water Accounting

- Authorization of the water requested by issuing a diversion certification
- Processing of the pump operation report as submitted by the water user to account for the water used
- Processing of water adjustments between diverters and users

# Water Accounting cont'd...

- Processing water contracts between water right holders
- Processing temporary water use permits
- Generation of the Monthly Report explaining the status of the water account

*All water accounting is processed using TXWAS  
(Texas Watermaster Accounting System)*

# Water Accounting

- Diversion Certification

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
DIVERSION CERTIFICATE

POST AT OR NEAR  
PUMP WHEN DIVERTING

Acct No: 0000-000                      Authorization Number: 418623                      Received By: A C

Owner: John Doe Farms                      Date: 01/27/2014    Time: 08:33

Diverter:                      Method: PHONE

Is authorized to divert:                      re-feet of regular water with pump                      r the period and rate shown below:

Deputy: Quintanilla                      Reach: 1

Begin Date	End Date	GPM	Acre Feet
<u>02/16/2014 08:00</u>	<u>02/16/2014 17:00</u>	<u>900</u>	<u>1.4912</u>
<u>02/17/2014 08:00</u>	<u>02/17/2014 17:00</u>	<u>900</u>	<u>1.4912</u>
<u>02/18/2014 08:00</u>	<u>02/18/2014 17:00</u>	<u>900</u>	<u>1.4912</u>
<u>02/19/2014 08:00</u>	<u>02/19/2014 17:00</u>	<u>900</u>	<u>1.4912</u>
<u>02/20/2014 08:00</u>	<u>02/20/2014 17:00</u>	<u>900</u>	<u>1.4912</u>
<u>02/21/2014 08:00</u>	<u>02/21/2014 17:00</u>	<u>900</u>	<u>1.4912</u>
<u>02/22/2014 08:00</u>	<u>02/22/2014 17:00</u>	<u>900</u>	<u>1.4912</u>

John Doe  
1804 W Jefferson Ave  
Harlingen, Texas 78550

Comments:                      Watermaster: Jose G. Luna

**Please retain this copy for your records**



# Water Accounting

- Pump Operation Report (POR)
- These reports must be returned with meter readings in a timely manner

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
PUMP OPERATION REPORT

Acct No: \_\_\_\_\_

Authorization Number: 418623

Received By: A C

Client Name \_\_\_\_\_

Date: 01/27/2014 Time: 08:33

Is authorized to divert: 10.4384 acre-feet of regular water with pump # \_\_\_\_\_ for the period and rate shown below:

Meter Reading	
Beginning	Ending

Begin Date	End Date	GPM	Acre Feet
02/16/2014 08:00	02/16/2014 17:00	900	1.4912
02/17/2014 08:00	02/17/2014 17:00	900	1.4912
02/18/2014 08:00	02/18/2014 17:00	900	1.4912
02/19/2014 08:00	02/19/2014 17:00	900	1.4912
02/20/2014 08:00	02/20/2014 17:00	900	1.4912
02/21/2014 08:00	02/21/2014 17:00	900	1.4912
02/22/2014 08:00	02/22/2014 17:00	900	1.4912

Remarks:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_

**THIS COPY MUST BE RETURNED TO WATERMASTER  
WITHIN 5 DAYS FOLLOWING END OF  
CERTIFICATION PERIOD**

# Watermaster Surveillance



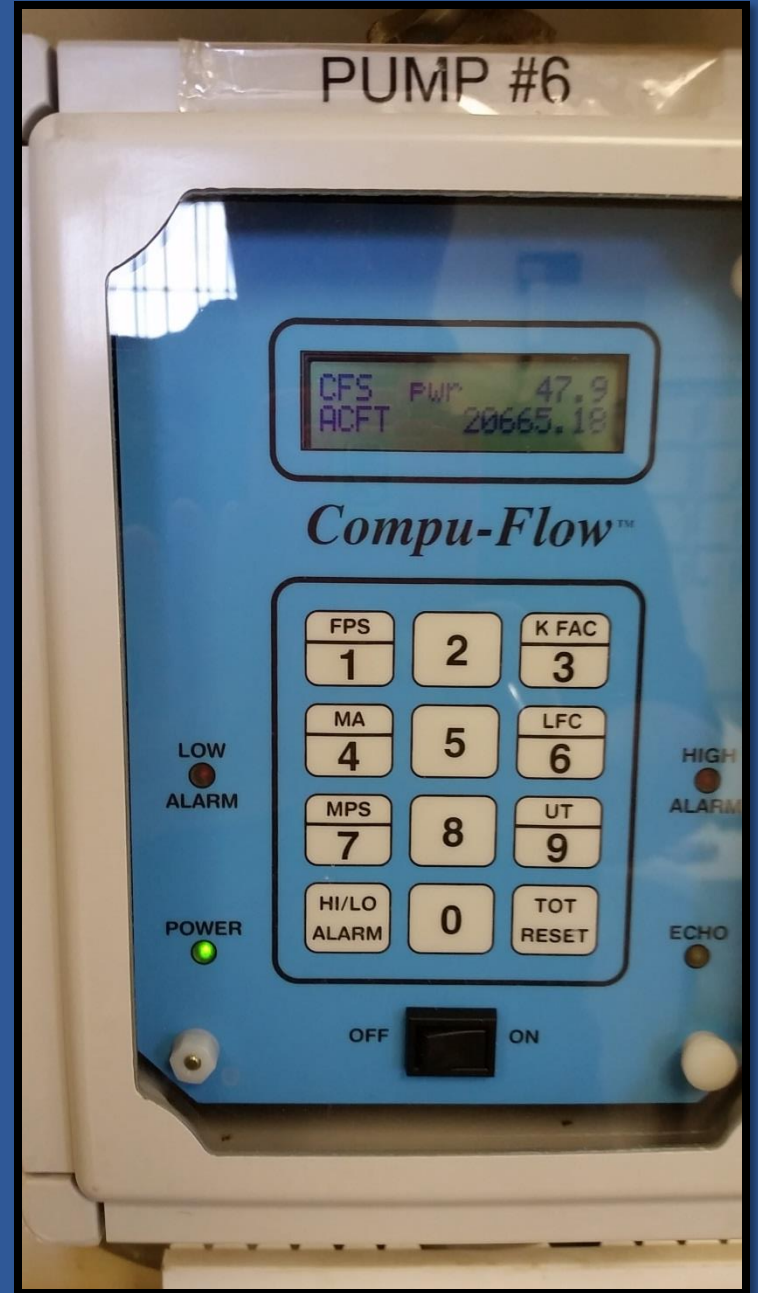
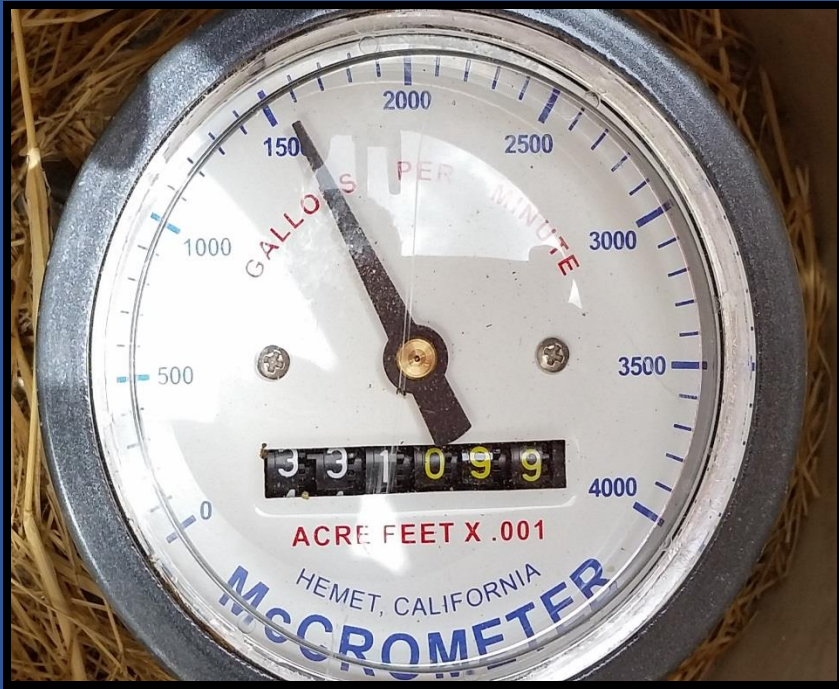
Ensure diverters have authorization to pump State water

- Diverters must request water prior to pumping
- 30 TAC §303.11(b)



Ensure diverters have a working measuring device on line during operation

- 30 TAC 303.11(e)





# Watermaster Surveillance

cont'd...



Ensure diverters are within their diversion certification

- 30 TAC 303.11(g)



Ensure diverters have an accessible pumpsite that can be checked conveniently and safely

- 30 TAC 303.11(e)









# Watermaster Surveillance cont'd...



Ensure a note is posted at or near the pump site to demonstrate authorization to divert

- 30 TAC §303.11(d)



Assign Pump Numbers based on river mile or IBWC tract in which the Water Right is located

# Watermaster Surveillance cont'd...



Provide Technical Assistance to water users



Observations of river conditions

# Watermaster Surveillance cont'd...

- Respond to water right complaints
- Maintain records of Deputy Daily Inspections
- Other Watermaster duties assigned



# Texas Commission on Environmental Quality



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