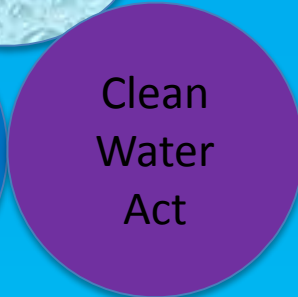


Water
2120



Safe
Drinking
Water
Act



Clean
Water
Act

Water Resources and Regulatory Compliance Update

WATER AUTHORITY BOARD MEETING
SEPTEMBER 25, 2019

A day in the Life in NM ...

Let the Fight Begin - TX v. NM



Discussing Water Rights, A Western Pastime

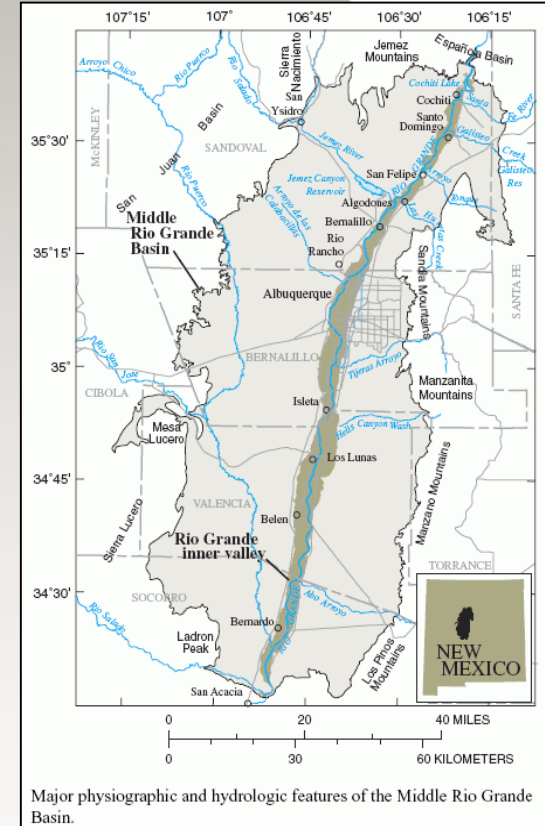
Rio Grande Compact

- CO, NM, TX and Mexico
- NM Delivery Obligation into EB
- Ongoing litigation between NM and TX

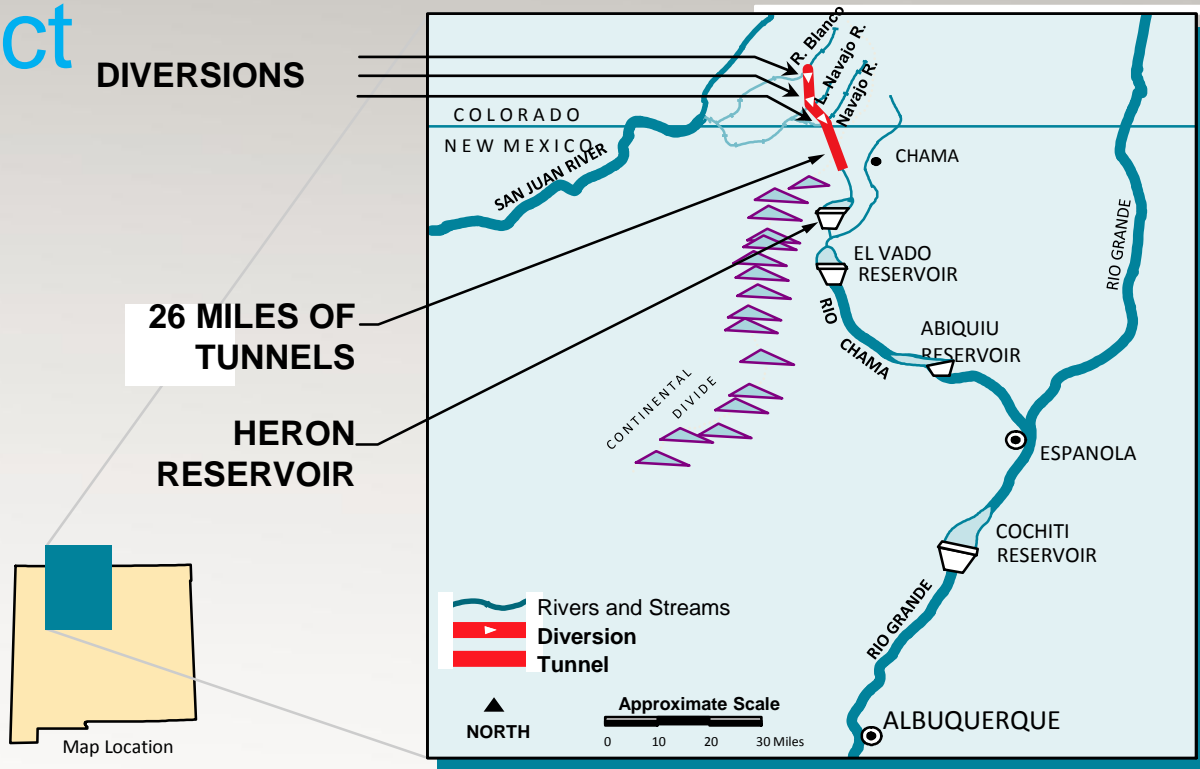


MRG Basin Aquifer

- 1956 OSE Declaration of MRG Basin
- 2004 Water Rights Administration
- Offset the effects of ground water pumping on the Rio Grande



Upper Colorado River Basin Compact - San Juan-Chama Project



Drinking Water Project Implemented

Surface Water
Diversion

Water
Treatment
Plant

OSE Diversion Permit - (SP-4830)

- Conditions that affect ability to divert based on flows at Central Avenue gage
- River Ops Conference Calls
- 2018 Lease and River Operations in Alb reach



Water Authority
River Diversion and
Return to Rio Grande

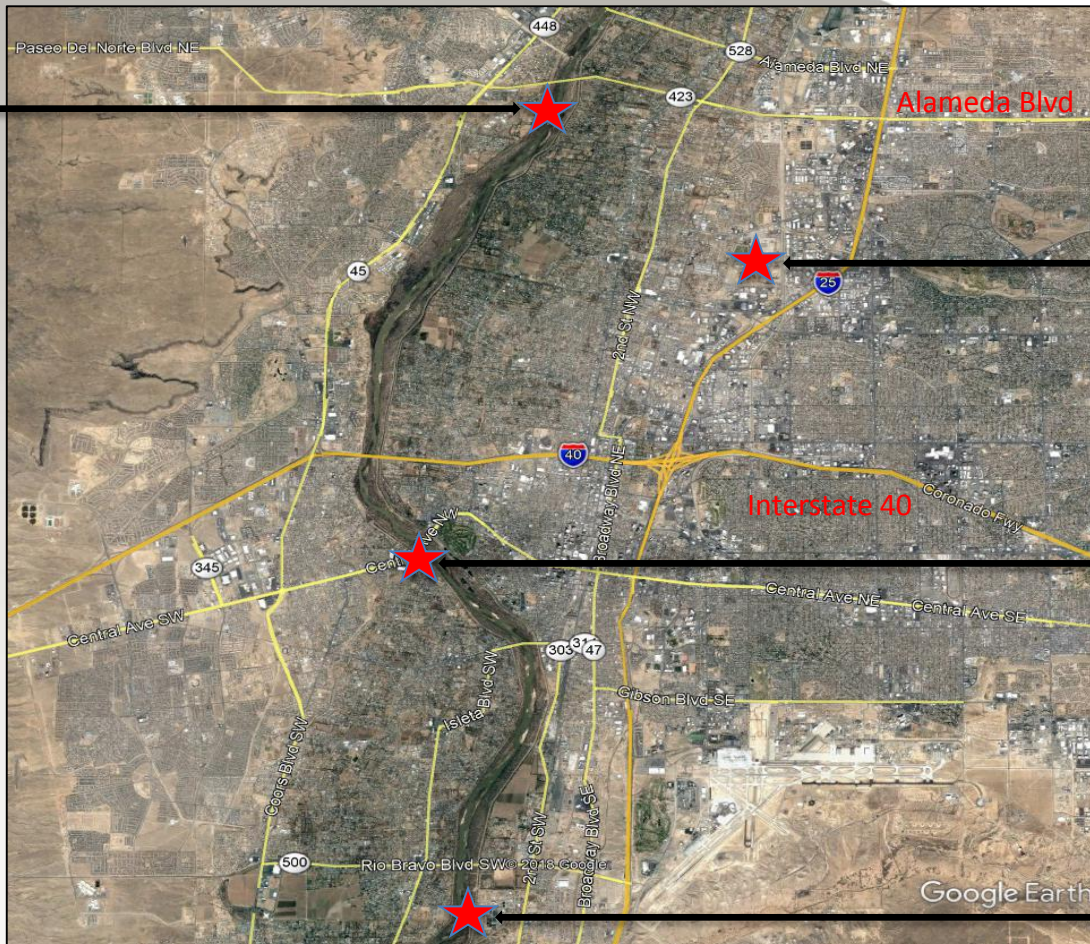
Water Authority
River Diversion



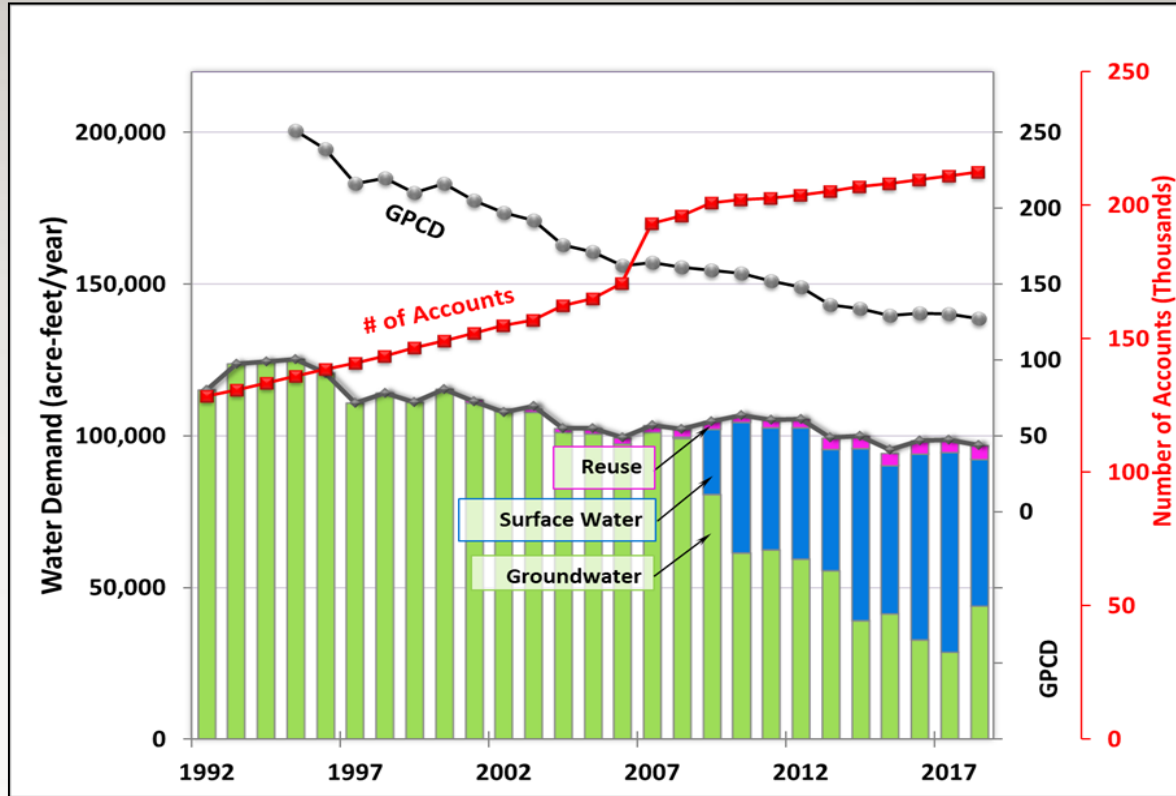
San Juan-Chama
Drinking Water
Treatment Plant

USGS Alb Gage
(Central Avenue)

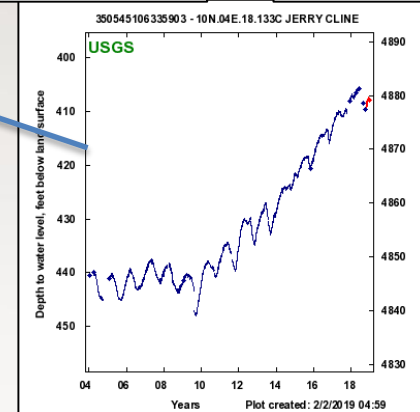
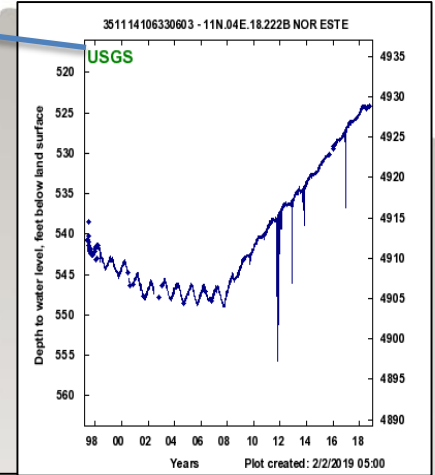
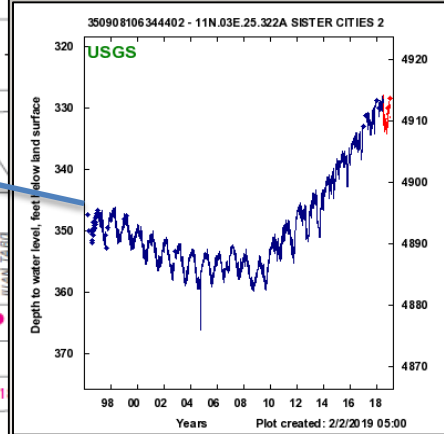
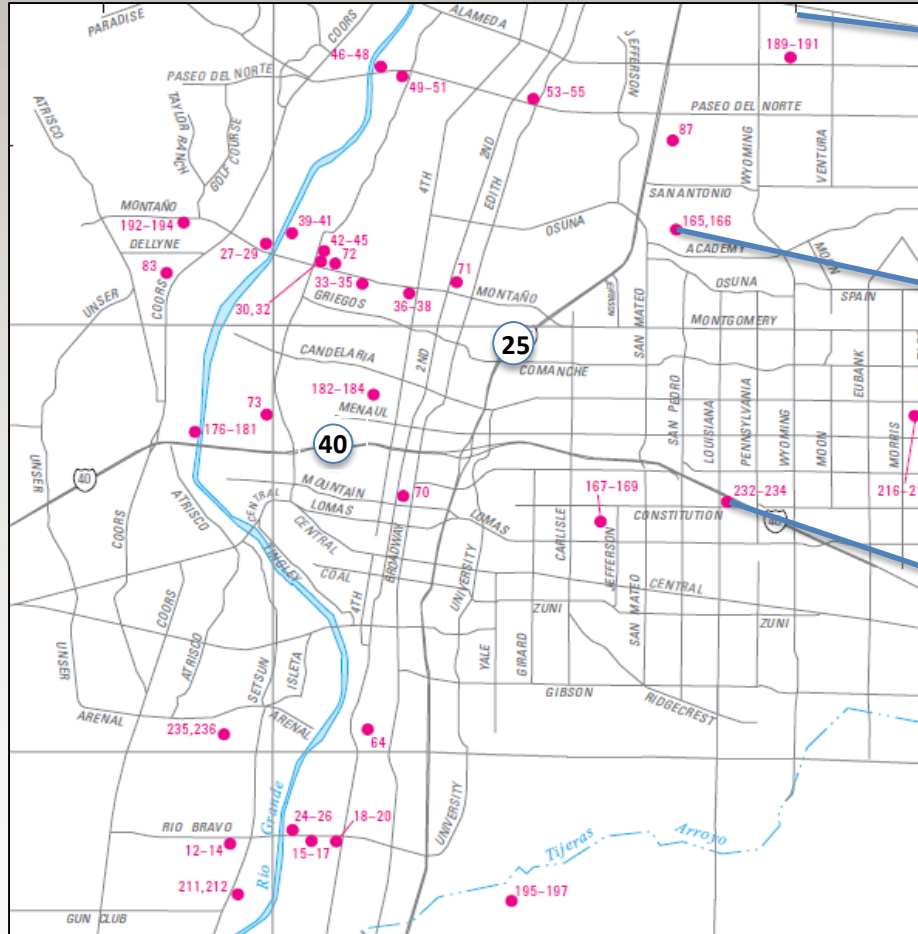
Water Authority
Effluent Discharge



Water Usage has Decreased Even with Growth

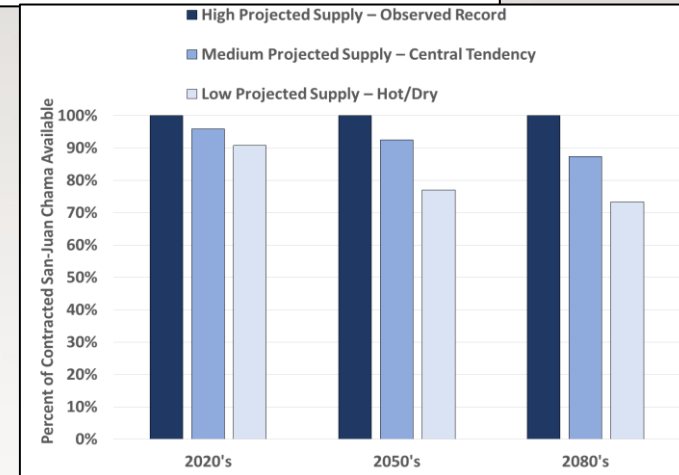
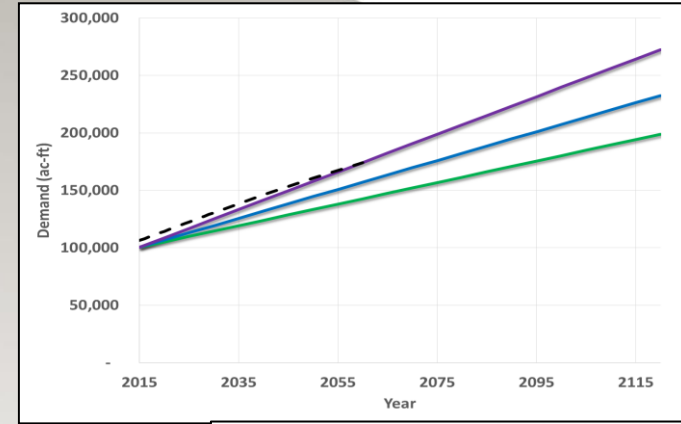


The Aquifer Continues to Rise



100-Year Water Plan – How Was it Developed?

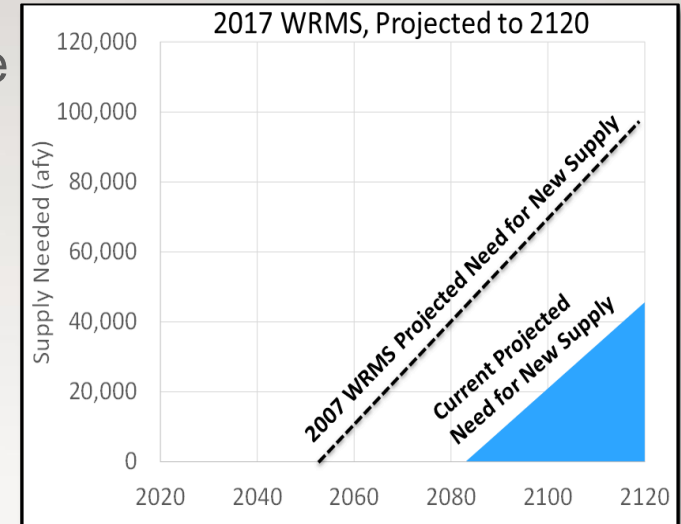
- Demand – How much water do we need?
- Supply – How much water do we have?
- Gaps – Do we need additional supply?
- Filling the Gaps – What will the new supplies be?



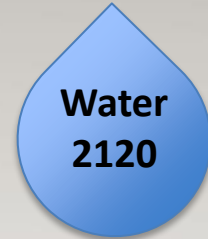
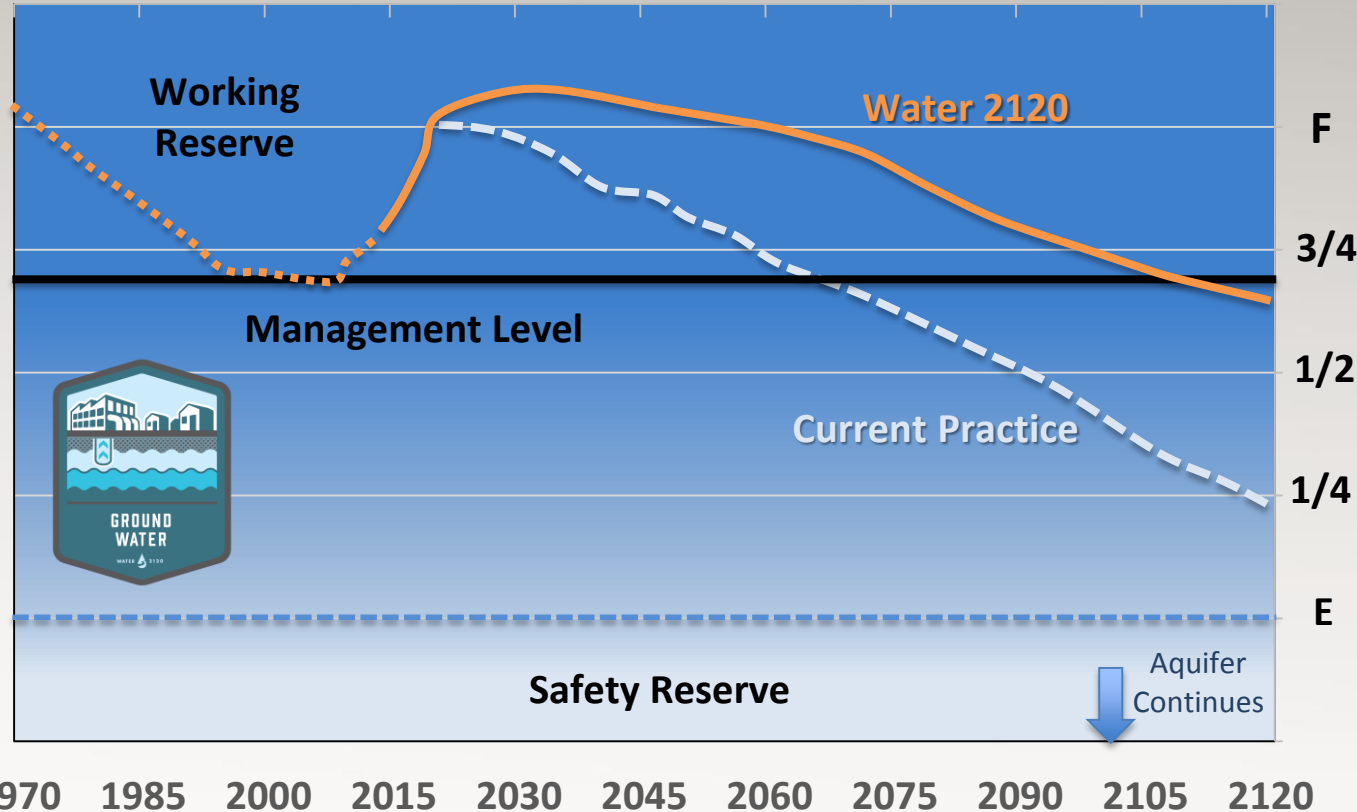
	Supply →		
Demand ↑	High Low	High Medium	High High
	Medium Low	Medium Medium	Medium High
	Low Low	Low Medium	Low High

Filling the Gaps Between Supply and Demand

- Utilize Existing supplies (groundwater and surface water)
- Additional Water Conservation – 110 GPCD in 20 years
- Additional Non-Potable Reuse
 - Connect North I-25 to Southside Reuse
 - Aquifer Storage and Recovery
 - Storage
- Storm water
- Indirect potable reuse (IDPR)
- Watershed management

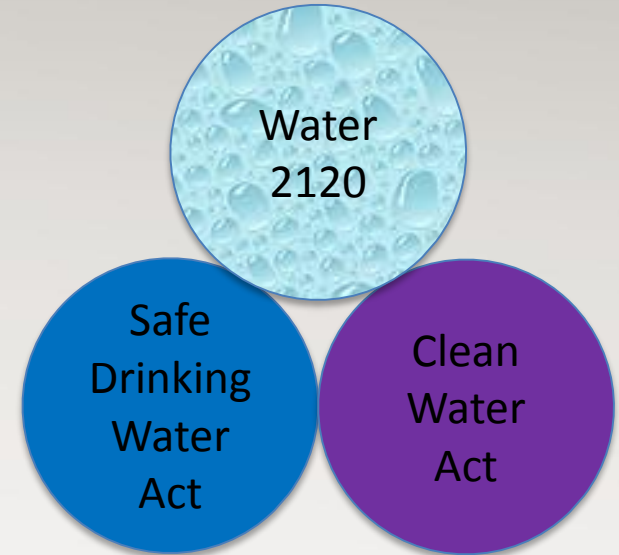


Groundwater Management Plan



Discussion Regarding Intersection of CWA/SDWA

- Arsenic
- Phosphorus
- IDPR/DPR
- Flow and River Operations

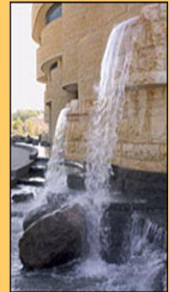


Arsenic

- Pueblo of Isleta proposes water quality standard of 17 ug/L for arsenic and ammonia in late 1980's
- City of Albuquerque challenges PIWQS
- EPA rulemaking for new SDWA standard for arsenic of 10 ug/L in 2001
- Arsenic effluent discharge is 2.4 ug/L

Tribes may get “Treatment as a State”

- **Sovereignty** – Tribes, like the state of New Mexico, can have own water quality programs. Examples include Taos, Picuris, Sandia and other pueblos. Tribal standards can exceed federal & state standards.
- **Impact on protecting water quality can be huge.** Isleta and Sandia Pueblo have fought for and secured improvements in wastewater treatment from big cities and industries.



by RiverSource
www.riversource.net

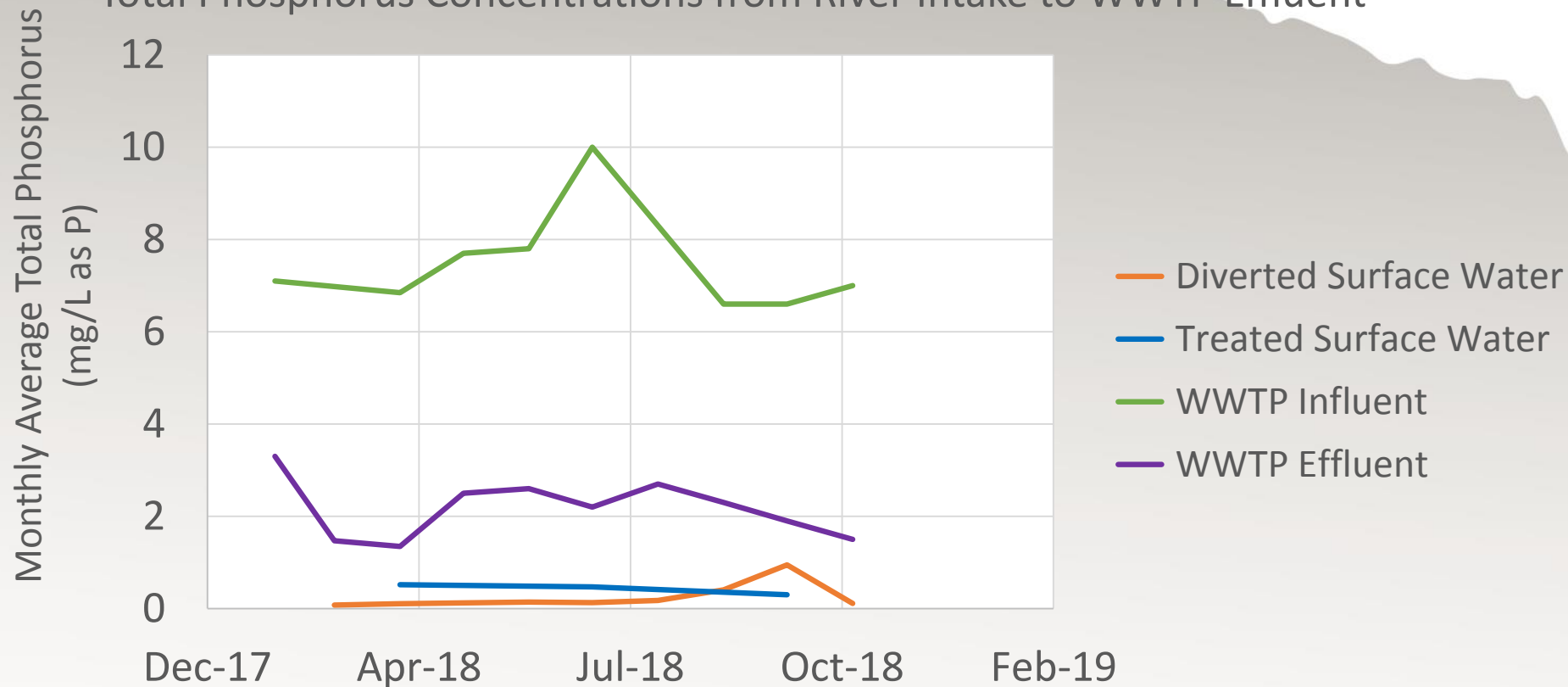
Phosphorus

- Ortho/poly phosphate blend added for corrosion control at San Juan-Chama Water Treatment Plant
- 2018 Draft NPDES permit – monthly monitoring for phosphorus
- EPA and NM focus on nutrient removal

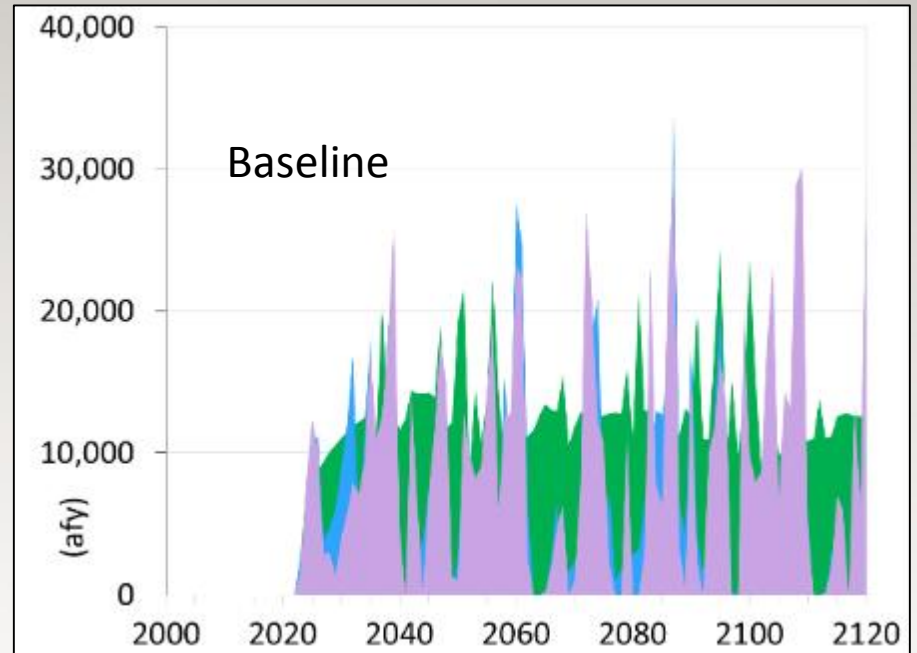
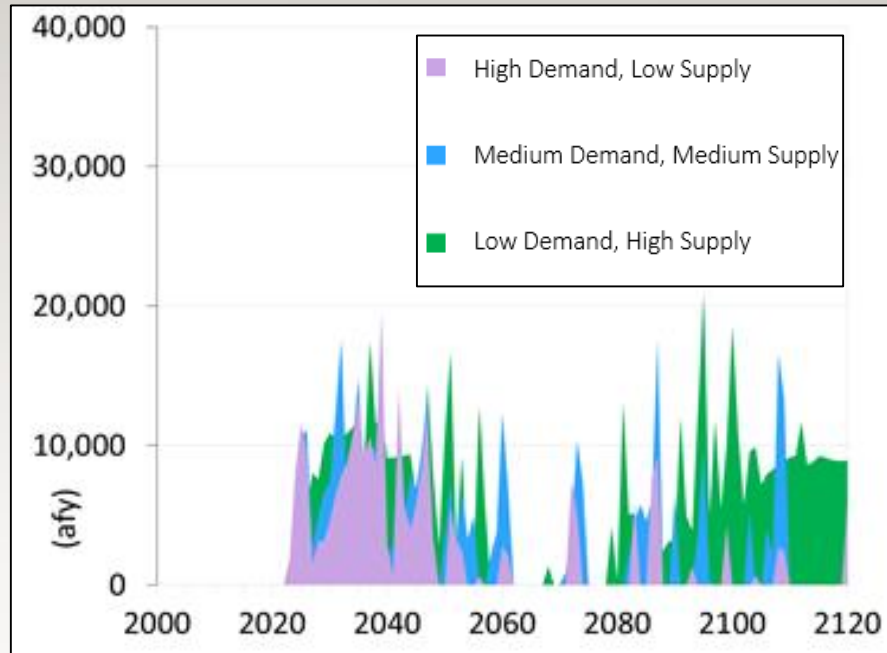


Phosphorus

Total Phosphorus Concentrations from River Intake to WWTP Effluent



Available Wastewater Return Flows



Direct/Indirect Potable Reuse

- Excess Return Flows used for Reuse and Drinking Water
- Water 2120 - Construct new Advanced Water Treatment Facilities – Southside Water Reclamation Plant or Future Satellite Facilities



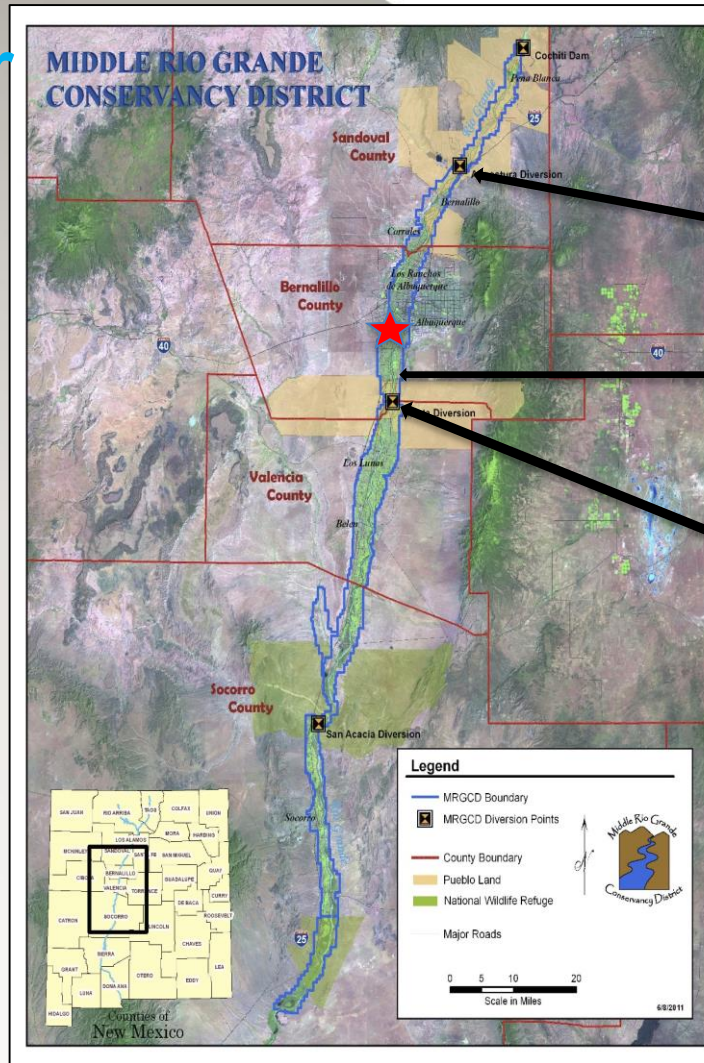
Kay Bailey Hutchinson Desal Plant – El Paso, TX

IDPR/DPR Regulatory Discussion

- NM currently has no regulations in place for IDPR/DPR (California and others developing/implementing regulations)
- Current DPR project under construction in Cloudcroft, NM to meet peak summer demands
- Regulatory/Policy discussion
 - Public Perception
 - Distribution System - chemical compatibility
 - Water Quality Regulations – more stringent than SDWA

Flow and River Operations

- River Flow diverted at Angostura
- Reduces flow through Albuquerque reach
- ★ (USGS Albuquerque Gage at Central)
- Irrigation returns just upstream of Isleta Diversion but downstream of Pueblo boundary



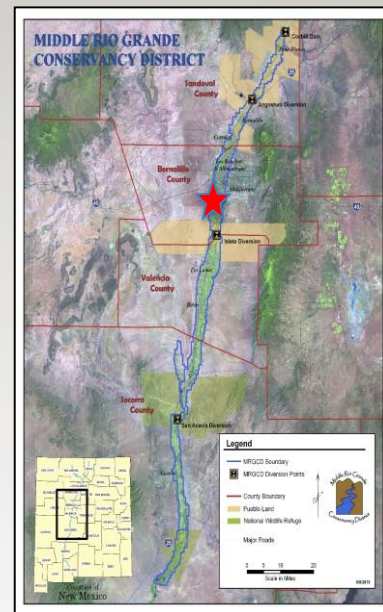
Angostura Diversion

Water Authority
Effluent Discharge

Isleta Diversion
and Angostura
Return

Flow and River Operations

- How do you determine critical low flow with upstream diversions for irrigation that affect flows at Central Avenue gage
- The Isleta and San Acacia river reaches downstream are frequently dry in the summer months
- How do water quality standards apply if the river is dry and designated uses cannot be obtained?



Thank You!

Questions?

