



Deep Groundwater Management in New Mexico



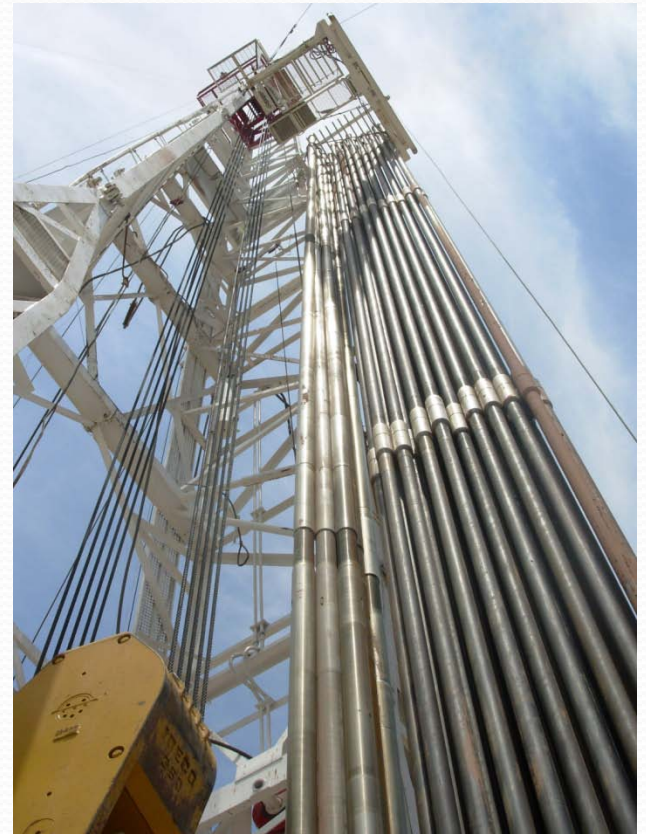
AWRA 2011 Annual Conference
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New Mexico Office of the State Engineer

Deep Groundwater Management in New Mexico

- 1) Legal Framework
- 2) History
- 3) The Resource
- 4) Summary

"All calculations based on experience elsewhere, fail in New Mexico."

Governor Lew Wallace,
Territorial Governor of New Mexico from 1878 - 1881, in a letter to his wife in Indiana. Wallace was also the author of the novel, *Ben Hur*.

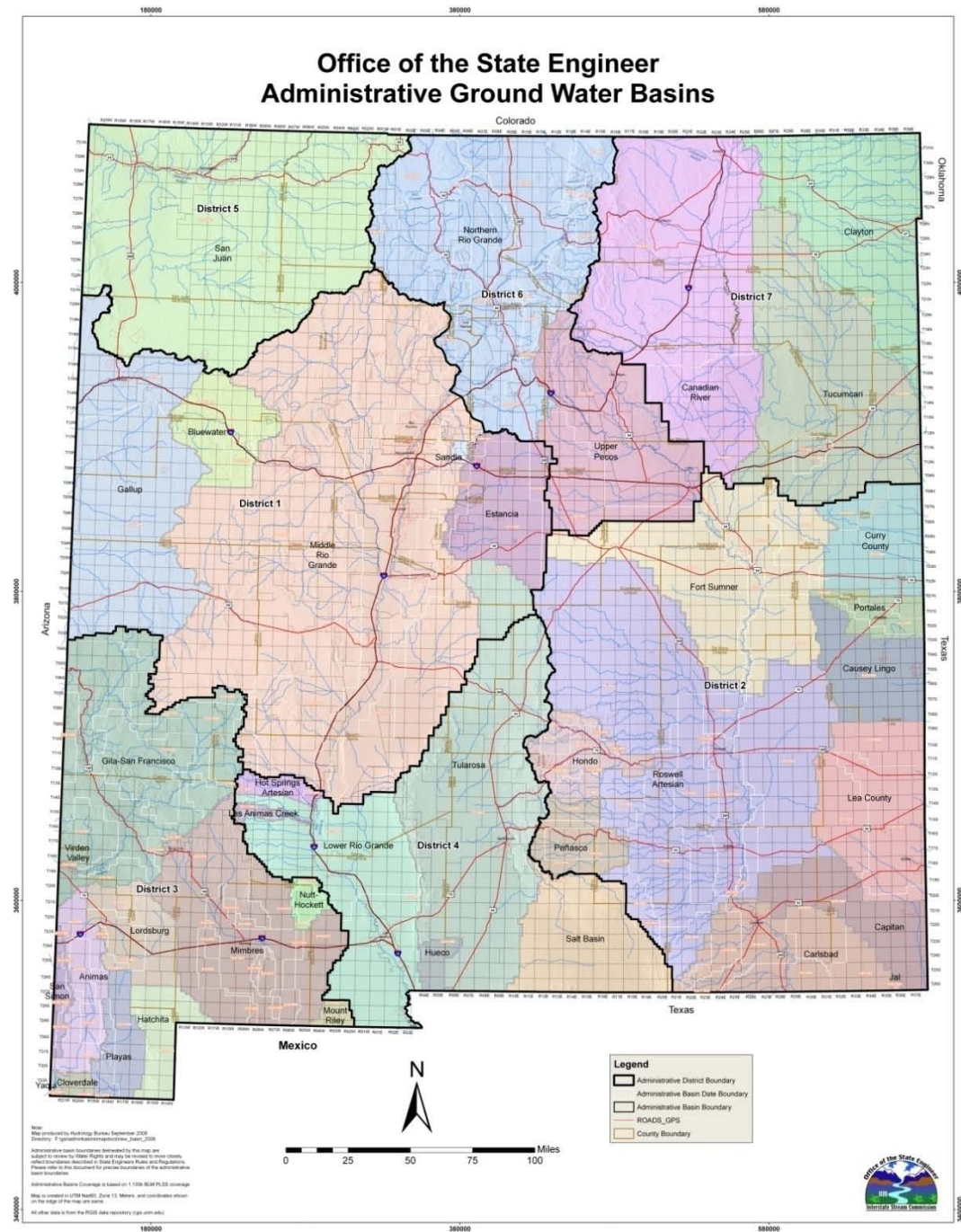




Legal Framework for NM Groundwater Administration

- 1931 Groundwater Code (Sections 72-12-1 et seq. NMSA 1978)
- Prior appropriation state; beneficial use defines water right
- State Engineer permit required in declared Underground Water Basins
- Statutory responsibilities of State Engineer
 - *Is water available for appropriation?*
 - *Will proposed use impair other water users?*
 - *Contrary to conservation of water?*
 - *Detrimental to public welfare?*
- Protest, administrative hearing, State Engineer final action
- Final actions appealed to District Court → NM Court of Appeals → NM Supreme Court

New Mexico Declared Under- Ground Water Basins





“Deep Nonpotable” Groundwater Statutes

The “Exclusion Statute” (Section 72-12-25)

- Top of aquifer at a depth of 2,500 feet or greater
- Aquifer must contain **only** nonpotable water (*Nonpotable water*=TDS \geq 1,000 ppm)

2009 amendments: State Engineer can declare deep basins; 8 exempt uses file Notice
All Other Uses Need State Engineer Permit (Municipal, Subdivision, etc.)

The “Notification Statute” (Section 72-12-26)

“Notice of Intention” to drill/recomplete well filed and public notice given = *No Permit*

The “Reporting Statute” (Section 72-12-27)

- Well diversions metered and reported
- Quarterly water chemistry analysis
- “Pertinent data”

The “Relief Statute” (Section 72-12-28)

Suit brought in district court based on impairment claim = *No State Engineer Hearing*

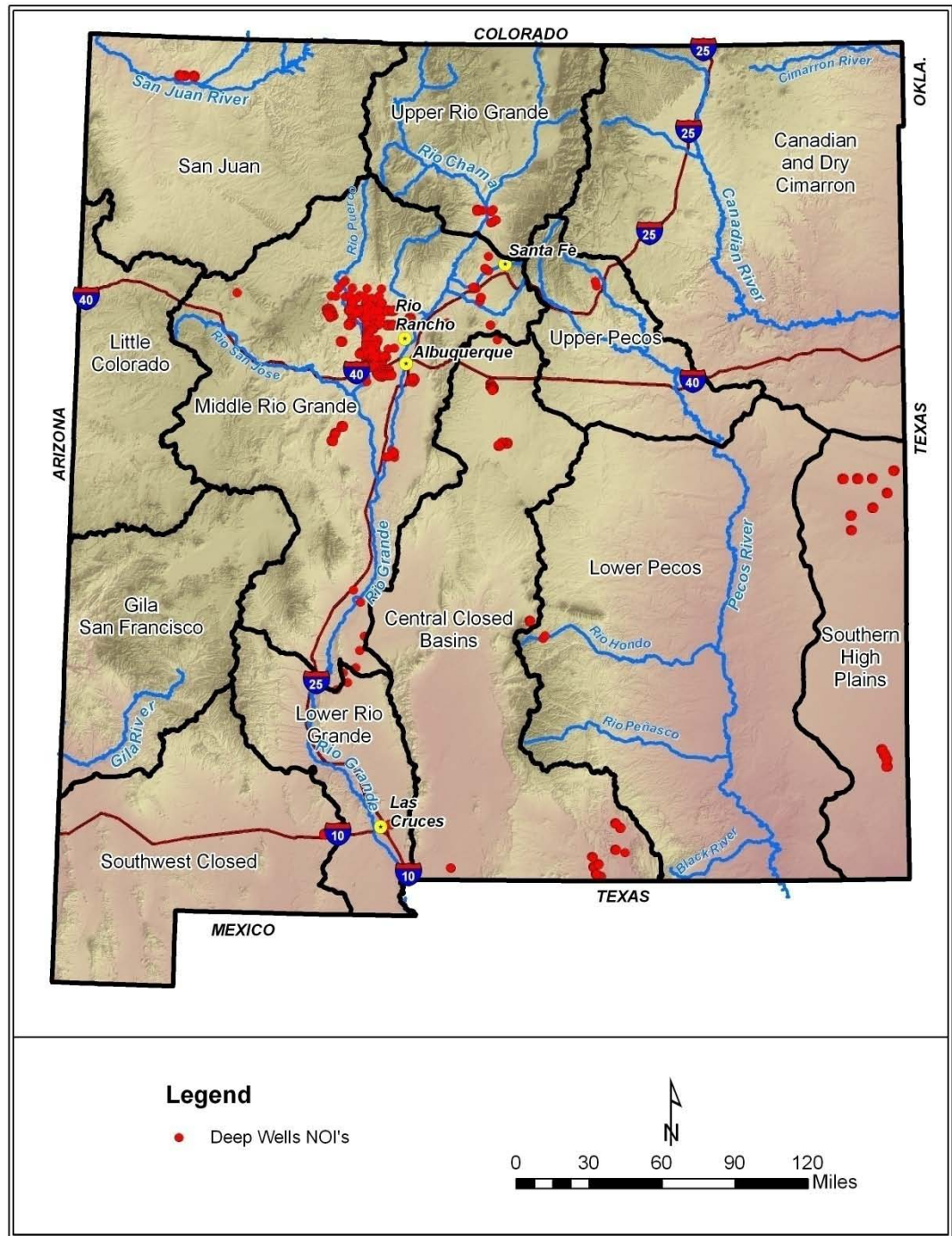
History

- 1967 – Deep Nonpotable Aquifer Statutes enacted
- 1997 – First deep well drilled west of Albuquerque
- 2006 to 2009 – Over 60 Notices filed for over 600 wells and 1.7 MAF (current NM GW use = 1.8 MAF)
- 2009 – Section 72-12-25 amended

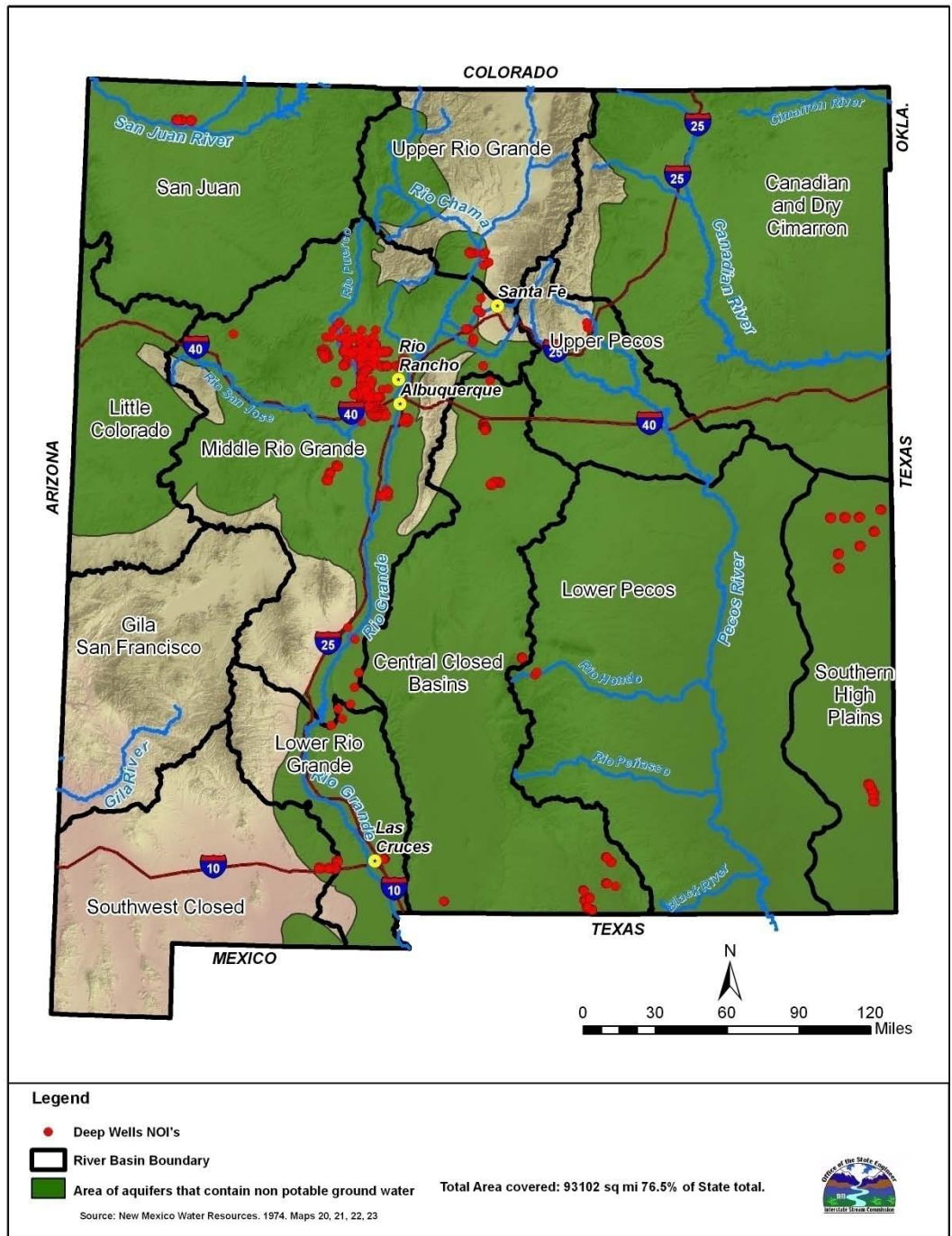
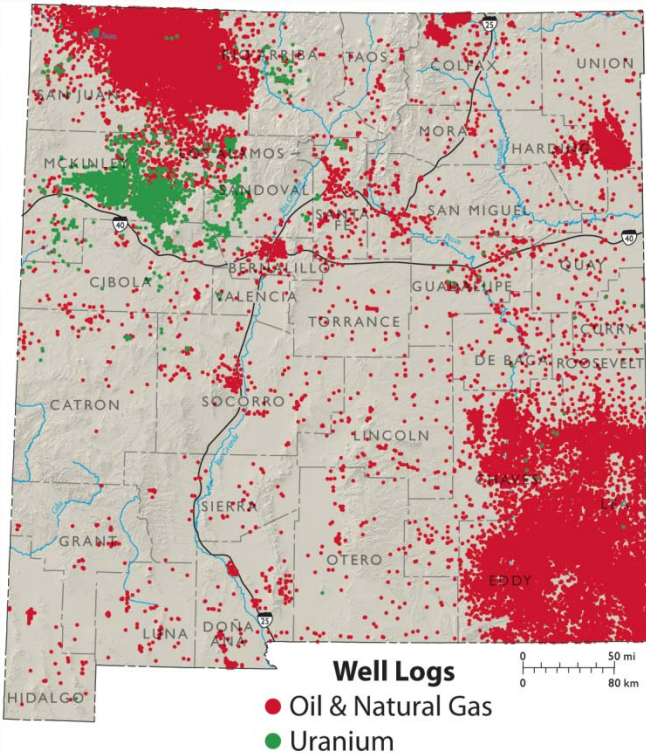


New Mexico State Capitol Building (the “Roundhouse”)

Deep Nonpotable Aquifer Notices of Intention



Occurrence of Nonpotable Groundwater in New Mexico



New Mexico Geology and Major Aquifers

Potential Deep Aquifers

Tertiary Basin-Fill Deposits
(Santa Fe and Gila Groups)

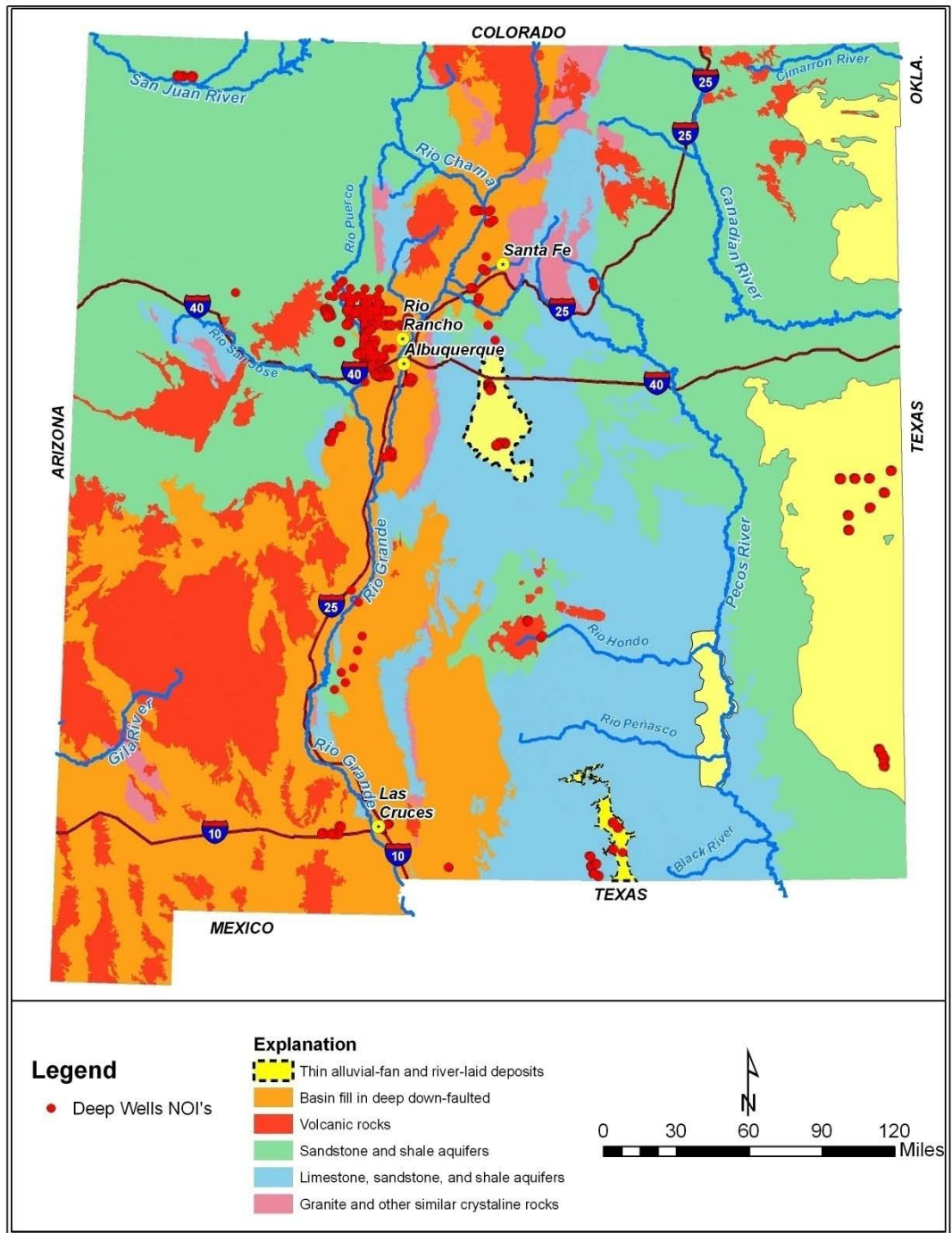
Permian Capitan Limestone

Permian San Andres Limestone
and Glorieta Sandstone

Permian Yeso Formation

Pennsylvanian formations such
as the Madera Limestone

**Primary target statewide is
San Andres/Glorieta Aquifer**



Deep Basin Administration: Objectives and Principles

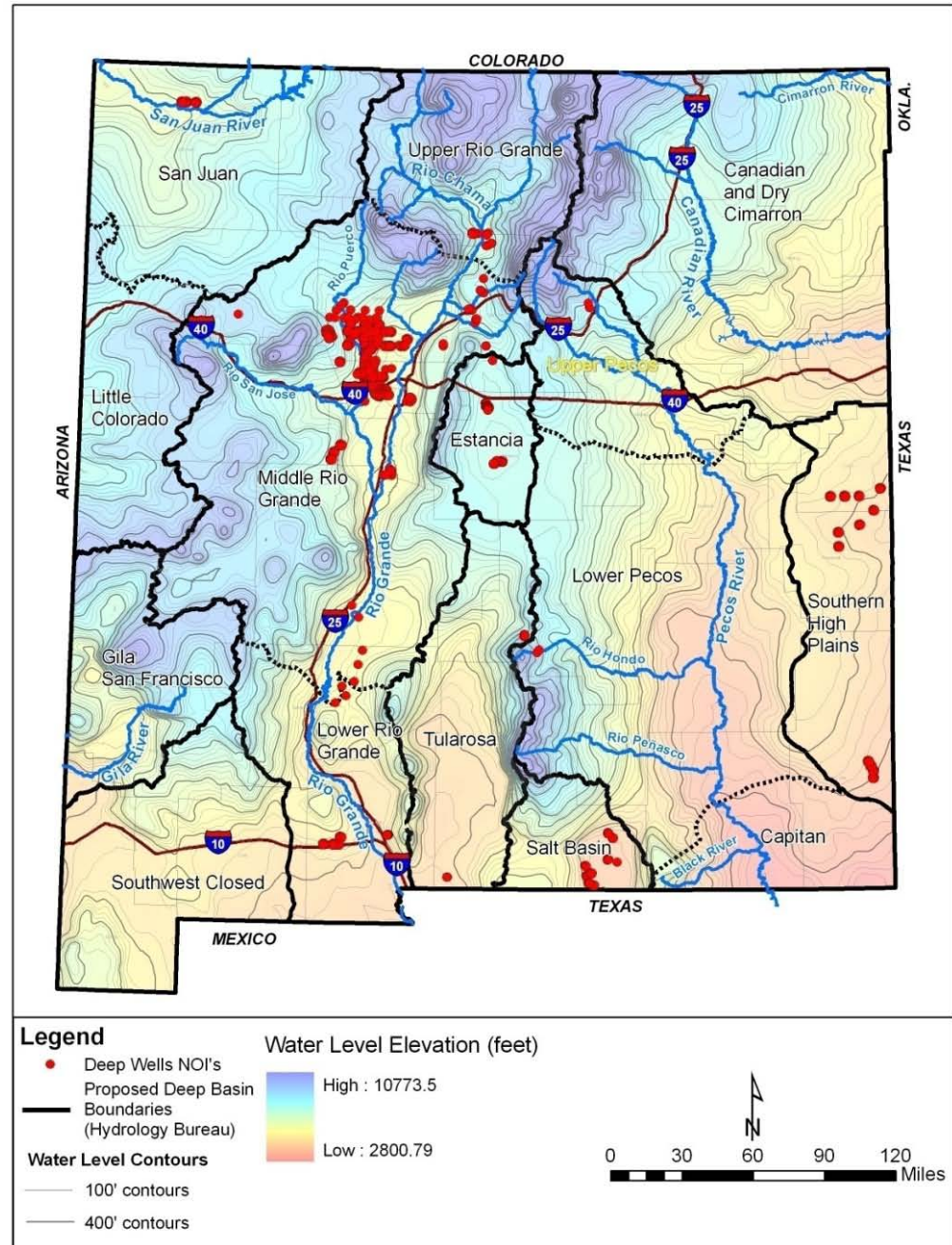
- 1) Facilitate resource development
- 2) Protect existing water rights and interstate compact flows

Main concern: Impairment of existing uses in other (potentially connected) sources

Basin boundaries must be “reasonably ascertainable” (UGWB standard)

State Engineer has NOT declared any deep basins, to facilitate exploration

Deep basin declaration and administration could protect senior users from impairment once resource development underway



Summary

- ***Two different legal frameworks for groundwater management in New Mexico***
- ***Large claims filed on deep nonpotable groundwater***
- ***Potentially significant deep nonpotable groundwater resource***
- ***Resource relatively undeveloped and not well-characterized***
- ***Resource exploitation cannot impair existing rights or interstate stream compact obligations***
- ***State Engineer's role to facilitate development of resource while protecting water rights/compacts***

