Supporting Document K-4

Constituency Group Scenarios

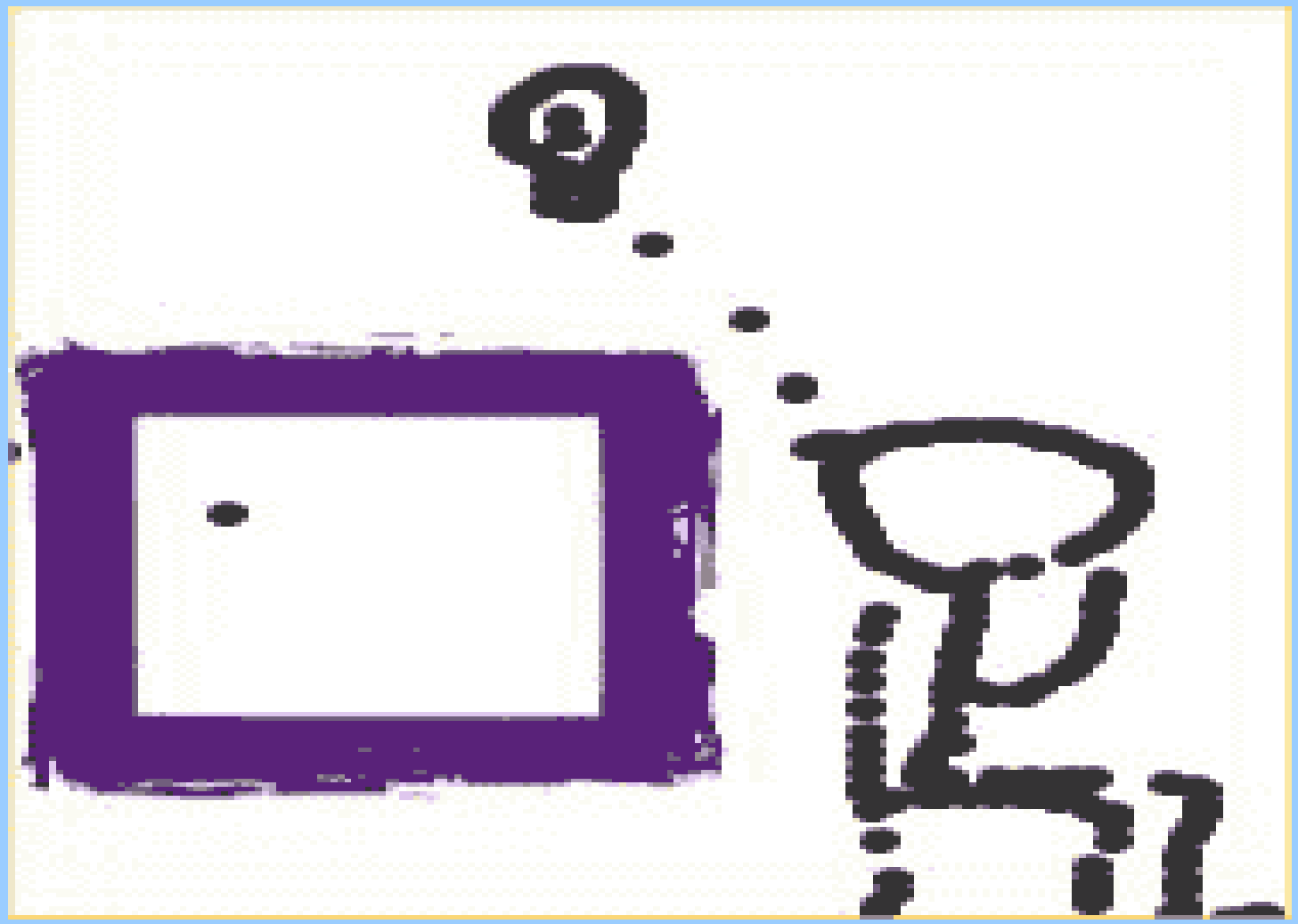
Water for the Future

Phoenix Scenario Development Committee

of the

Middle Rio Grande Water Assembly

Phoenix SDC agreed to



Assumptions

- We want our children's children to have the choices we have
- We must stop mining the aquifer now
- The current "drought" is normal

Primary Concerns

- Depletion of the aquifer has significant ramifications for the future;
- Existing supply of ground and surface water is insufficient to meet demand;
- Water quality of Rio Grande must be improved to provide suitable drinking water.
- The disconnect between land use management and water management must not continue.
- The spiritual importance of water should not be ignored.

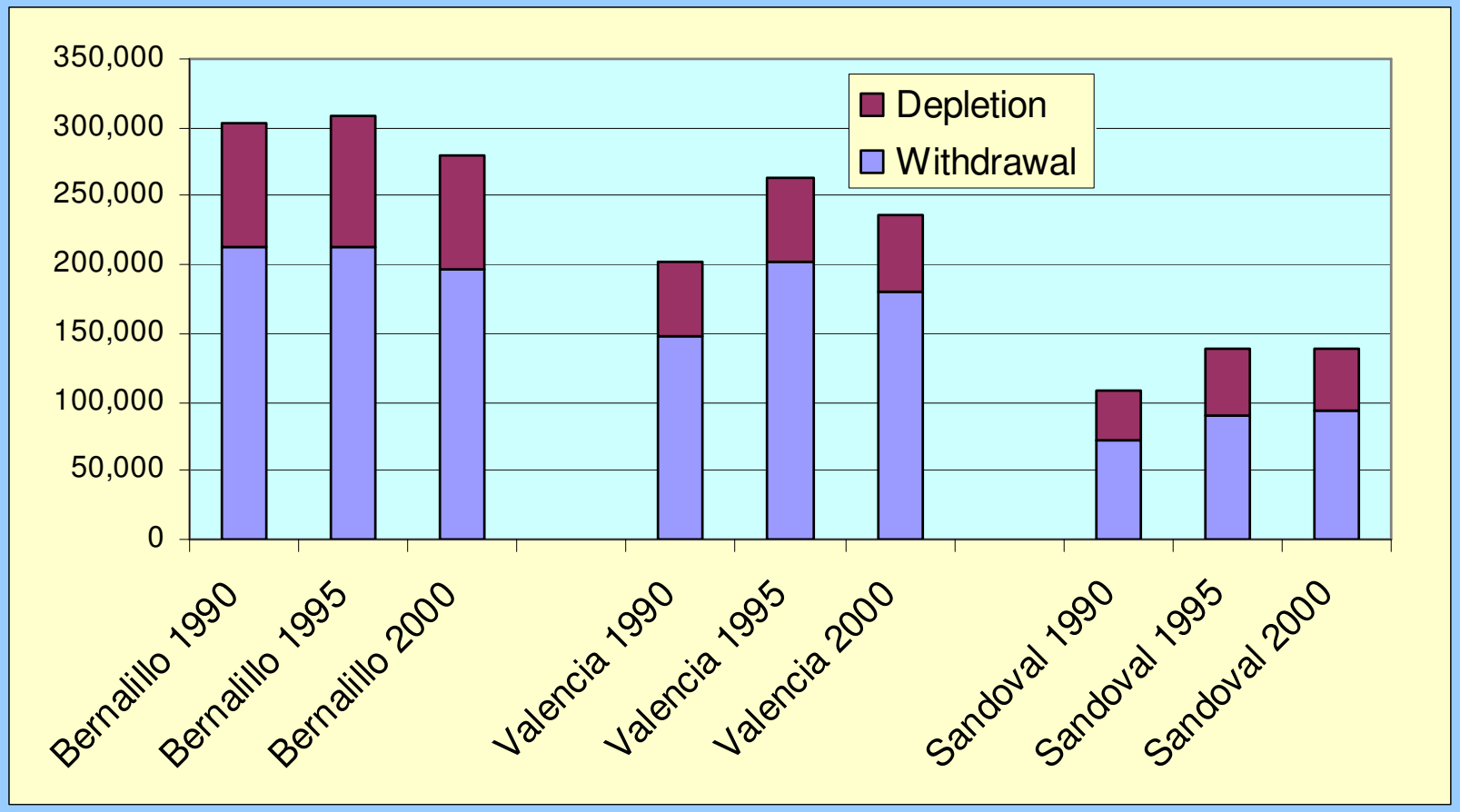
- Growing and increasingly diverse demands for water in the Middle Rio Grande region—including the State's needs for water supply for about half its population and economy, and for wildlife and ecological uses—cannot all be met.

- Current water consumption exceeds the long-term average supply that is legally available for use in the Middle Rio Grande.

- Since the surface-water system is closely interconnected with groundwater, pumping more groundwater does not solve the problem.

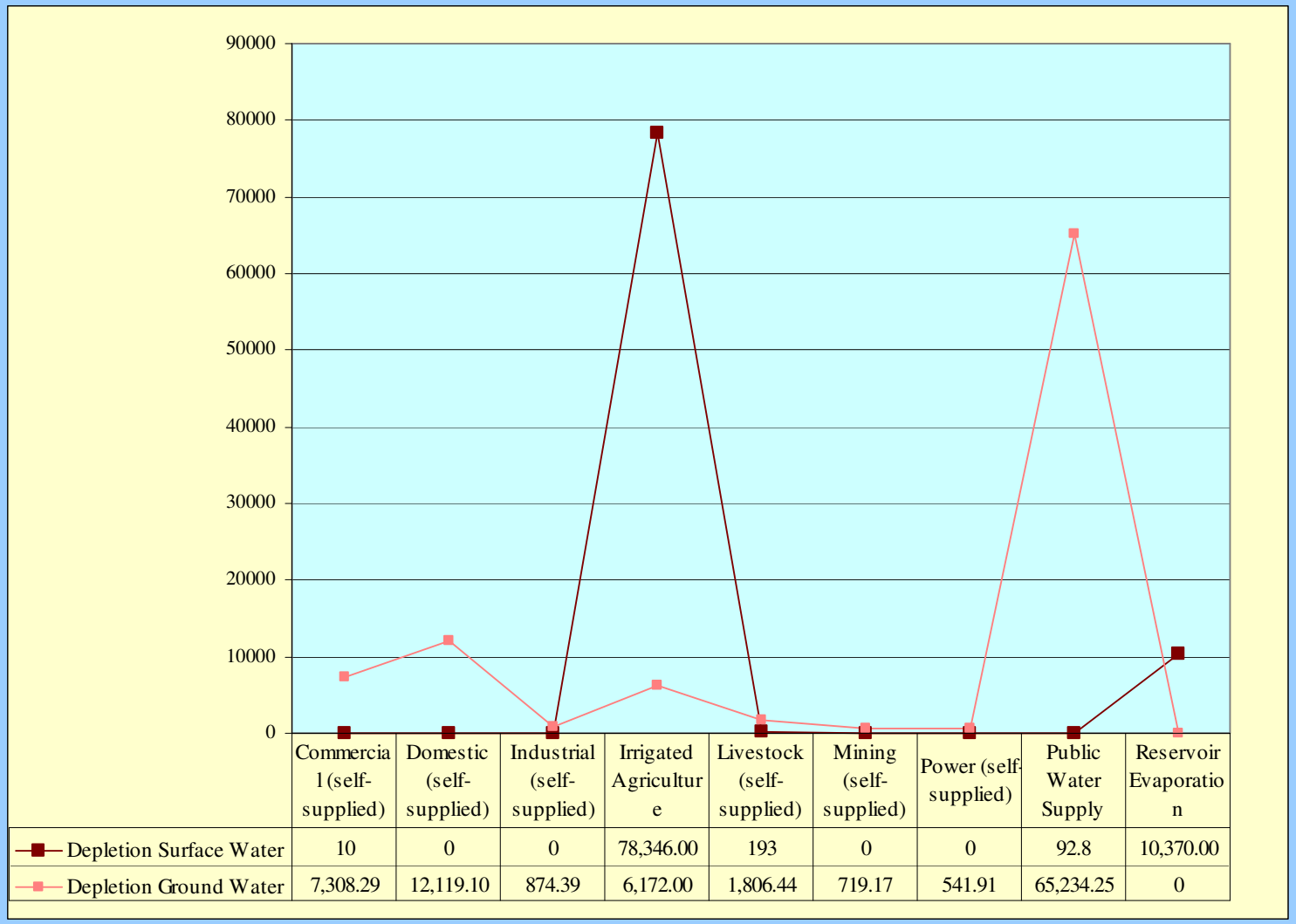
Source: *Framework For Public Input To A State Water Plan*; Prepared By The New Mexico Office Of The State Engineer And The Interstate Stream Commission; December 2002

MRG Withdrawal & Depletion, 1990, 1995 & 2000, in acre feet



Source: Brian, C., Wilson, P.E., "*Water Use by Categories in New Mexico Counties and River Basins, and Irrigated Acreage*", Technical Reports, 1992, 1997 and 2003, New Mexico State Engineer Office, Santa Fe, NM.

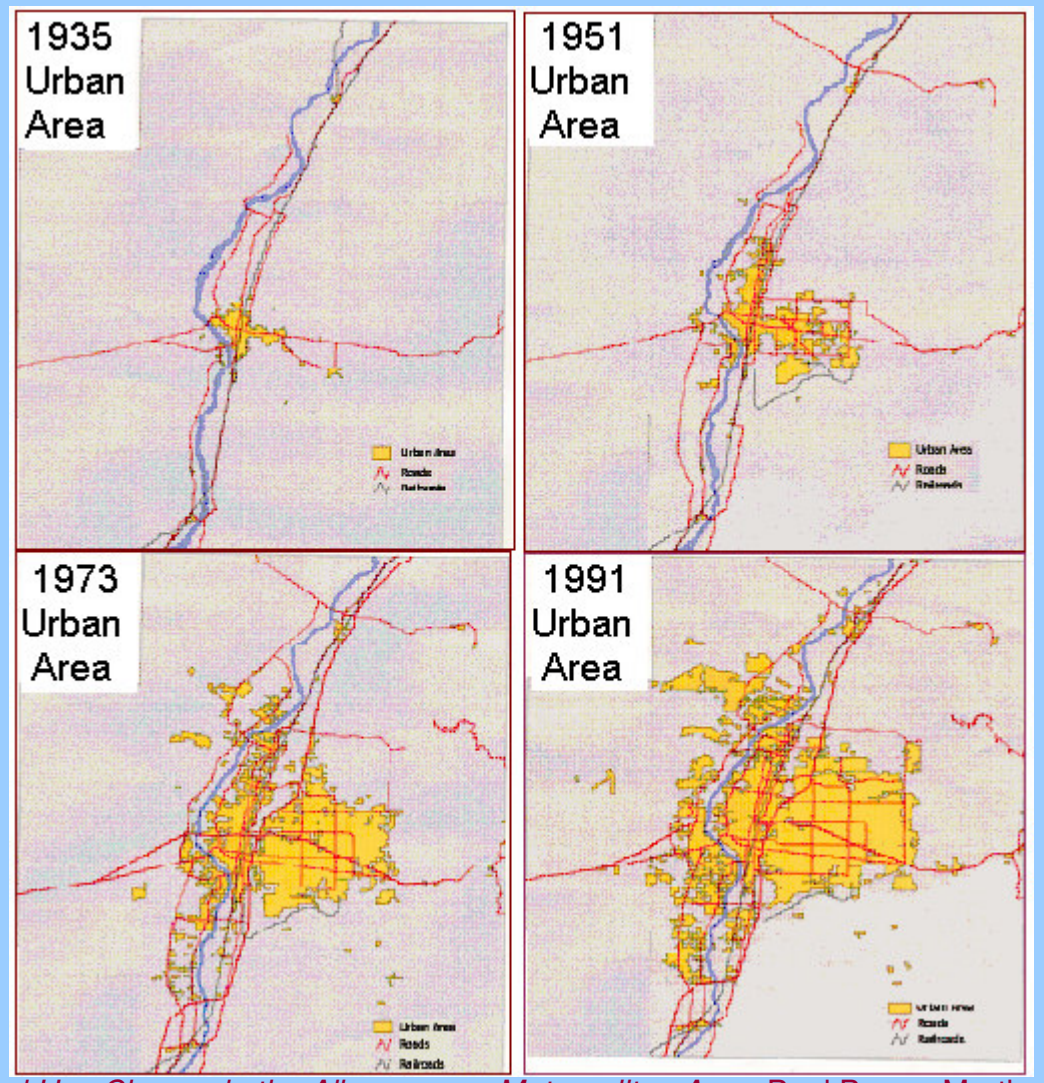
Water Depletion - 2000, in acre feet



	Commercial (self-supplied)	Domestic (self-supplied)	Industrial (self-supplied)	Irrigated Agriculture	Livestock (self-supplied)	Mining (self-supplied)	Power (self-supplied)	Public Water Supply	Reservoir Evaporation
Depletion Surface Water	10	0	0	78,346.00	193	0	0	92.8	10,370.00
Depletion Ground Water	7,308.29	12,119.10	874.39	6,172.00	1,806.44	719.17	541.91	65,234.25	0

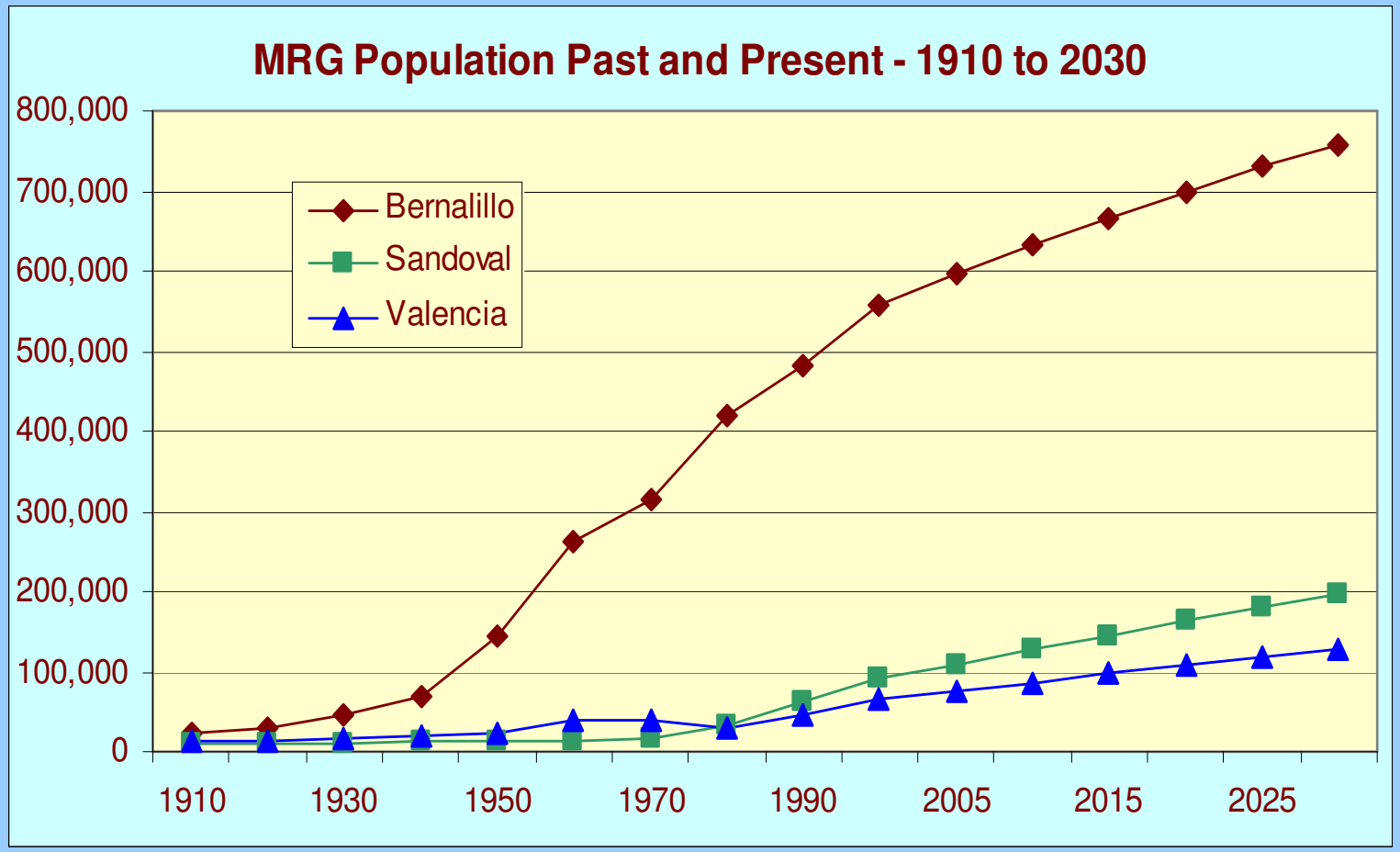
Source: Brian, C., Wilson, P.E., "*Water Use by Categories in New Mexico Counties and River Basins, and Irrigated Acreage*", Technical Reports, 1992, 1997 and 2003, New Mexico State Engineer Office, Santa Fe, NM.

Albuquerque area growth – 1935 to 1991



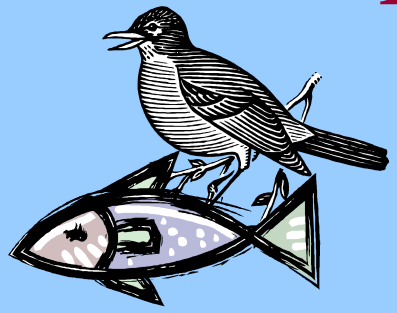
Source: Urban *Land Use Change in the Albuquerque Metropolitan Area*; Paul Braun, Martin Chourre, Dave Hughes, Jamie Schubert, Heike Striebek and Richard Thorstad; U. S. Geological Survey, 1997

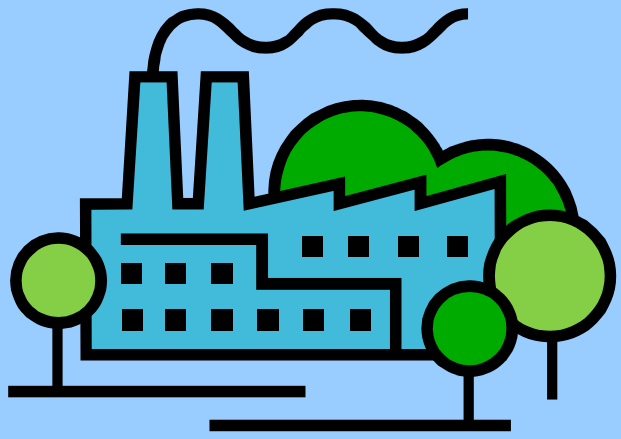
Population Continues to Increase

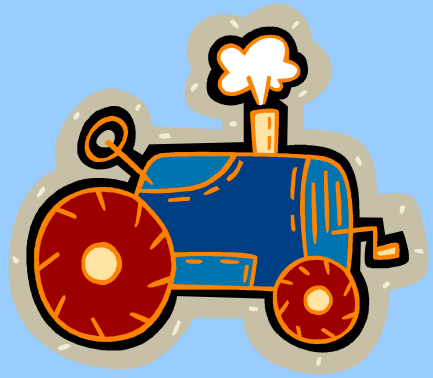


Source: Bureau of Business and Economic Research, University of New Mexico.

New or Additional Users Need Water Too





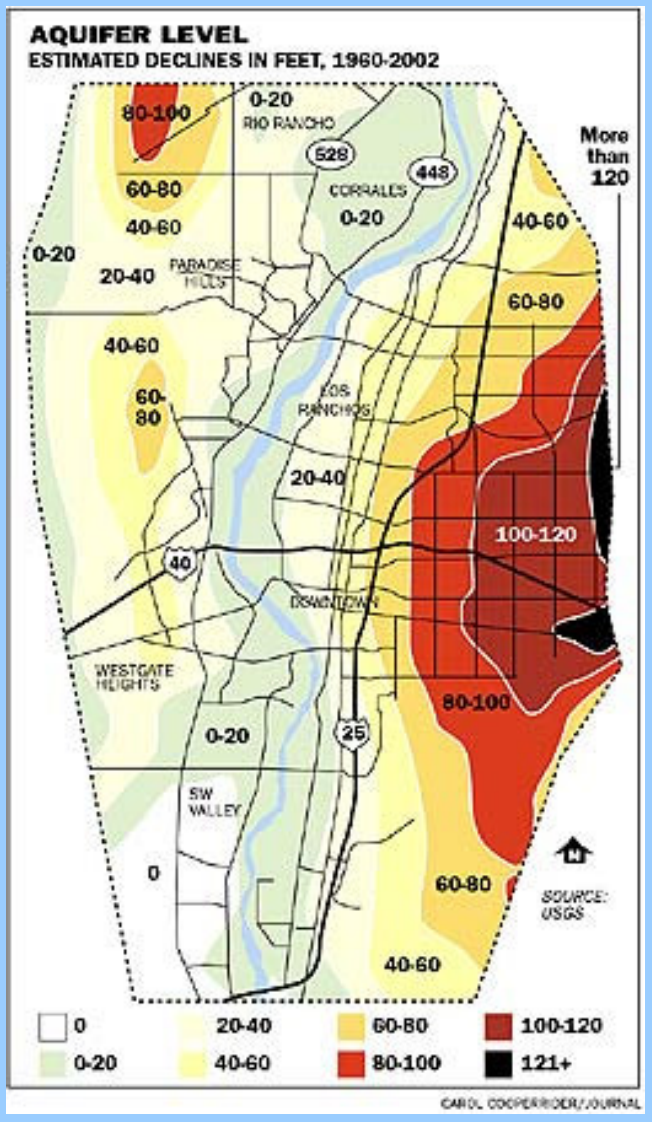


Sign warning motorists of subsidence hazard was erected after an earth fissure damaged Snyder Hill Road in Pima County, Arizona, 1981.

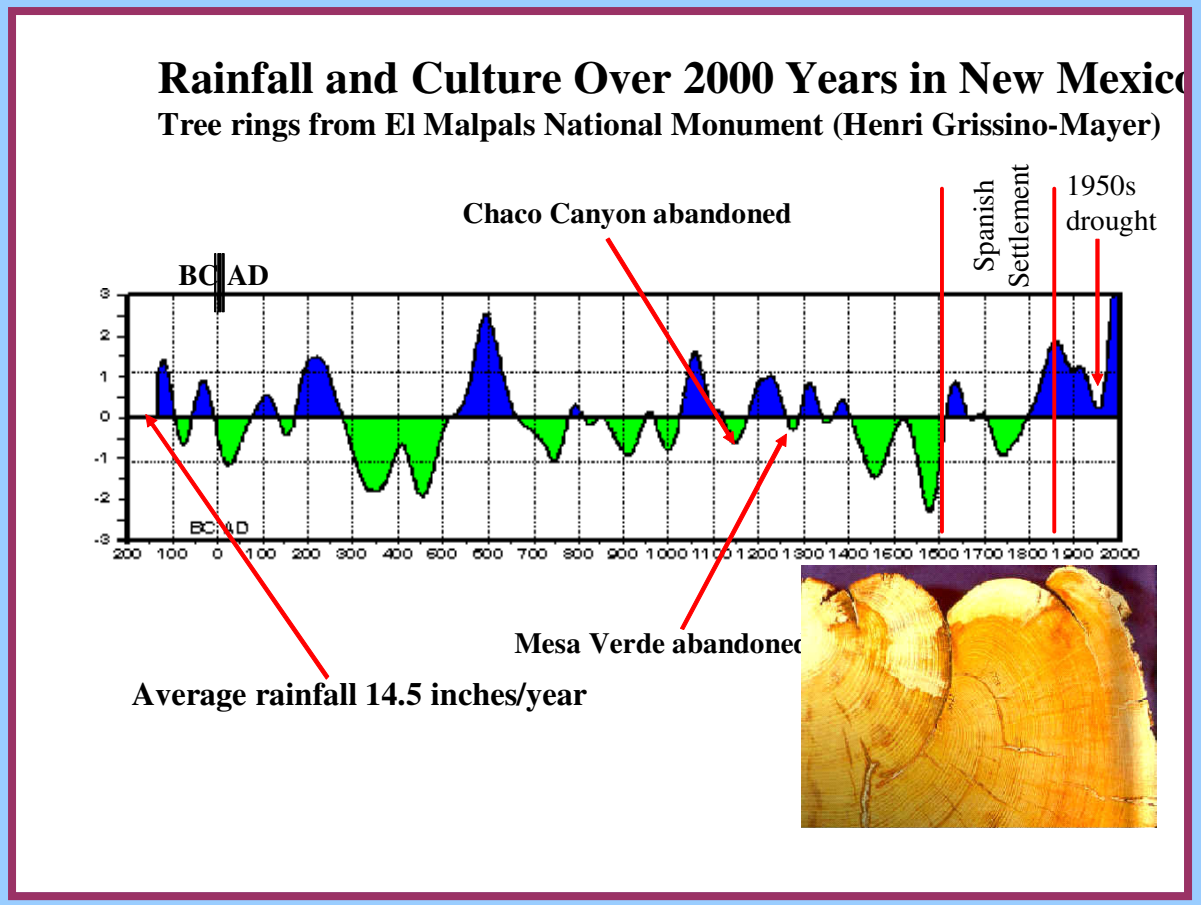
- Subsidence causes unintended consequences
- Destruction of roads and infrastructure
- Costs $$$ not budgeted for repairs
- Can increase groundwater salinity

2003 USGS Report of Groundwater Levels in the Albuquerque region

Shows declines from 1960 to 2000



What if current "drought" is more consistent with normal weather patterns?



Water Quality is Crucial too!

We Are Over Our Water Budget

To balance, we must have either:

1. A Net Increase in Water Supply and/or
2. A Net Decrease in Water Demand

A Net Decrease in Water Demand

Could be accomplished by

- Reducing Users,
- Conserving, and
- Restricting the Number of New Users.

A Net Increase in Water Supply

Could be accomplished by

- Importing Water
- Decreasing Evaporation Losses

Preferred Alternatives

- Watershed Plans, with an expand definition A-66
- Importation of Water A-69
- Urban Conservation A-18
- Growth Management A-52
- Water Quality A-47

In the end, we will conserve only what we love. We love only what we understand. We will understand only what we are taught.

Baba Dioum