

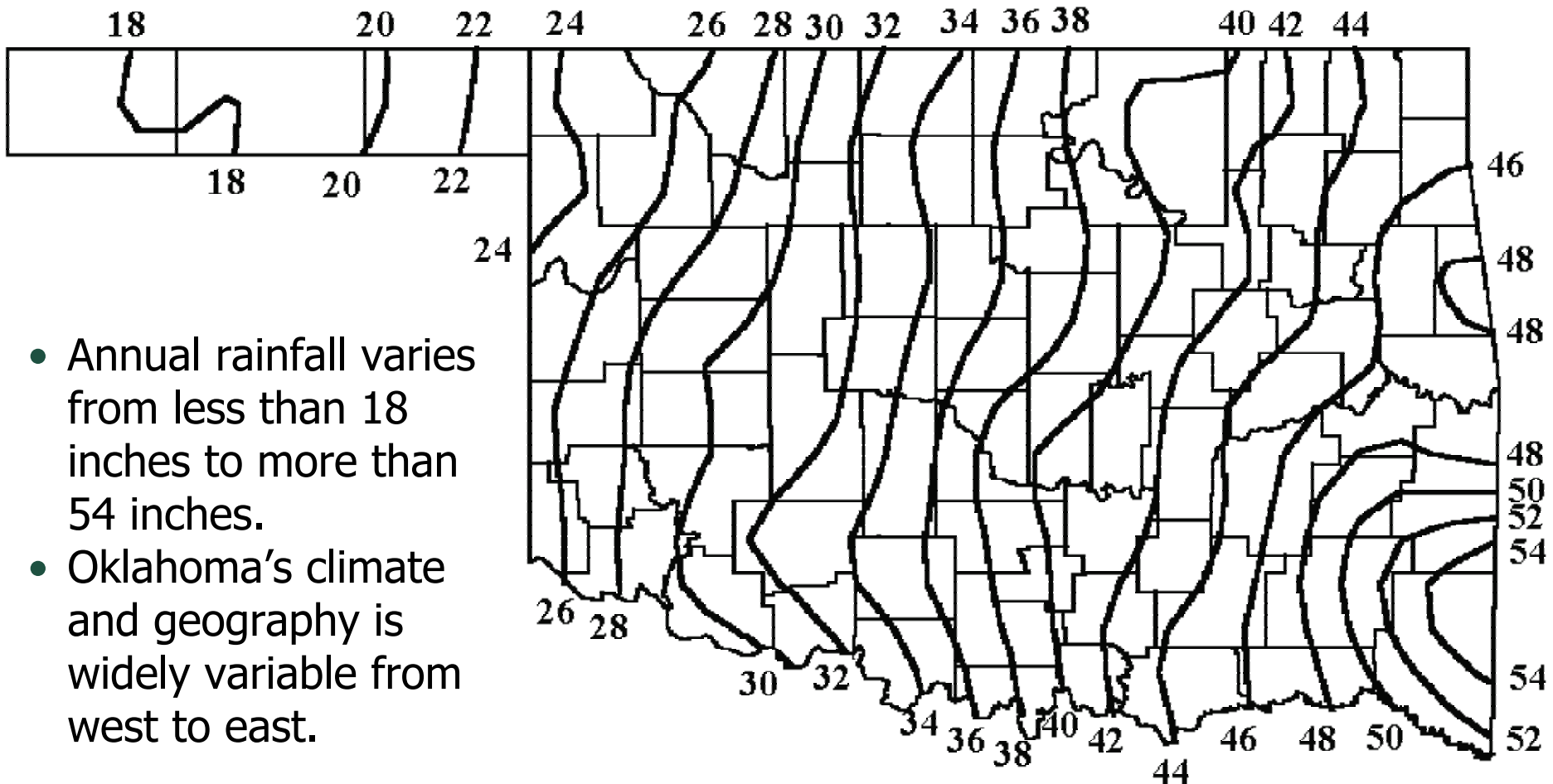
Oklahoma Water Law



State of Oklahoma
OWRB
WATER RESOURCES BOARD
the water agency

Oklahoma's Water Resources

Normal Annual Precipitation Oklahoma (1971-2000)



Oklahoma's Water Resources

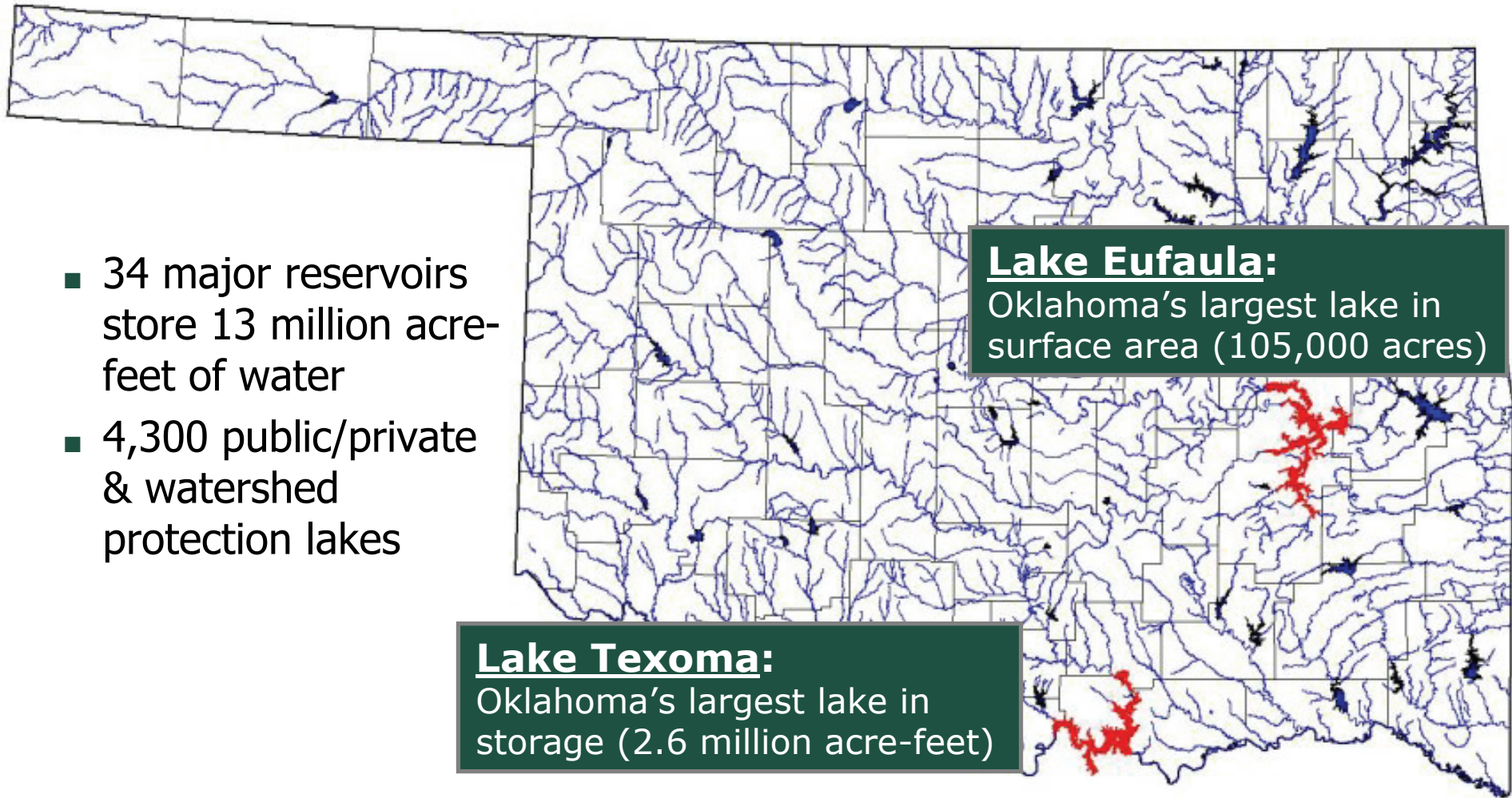
- 34 major reservoirs store 13 million acre-feet of water
- 4,300 public/private & watershed protection lakes

Lake Texoma:

Oklahoma's largest lake in storage (2.6 million acre-feet)

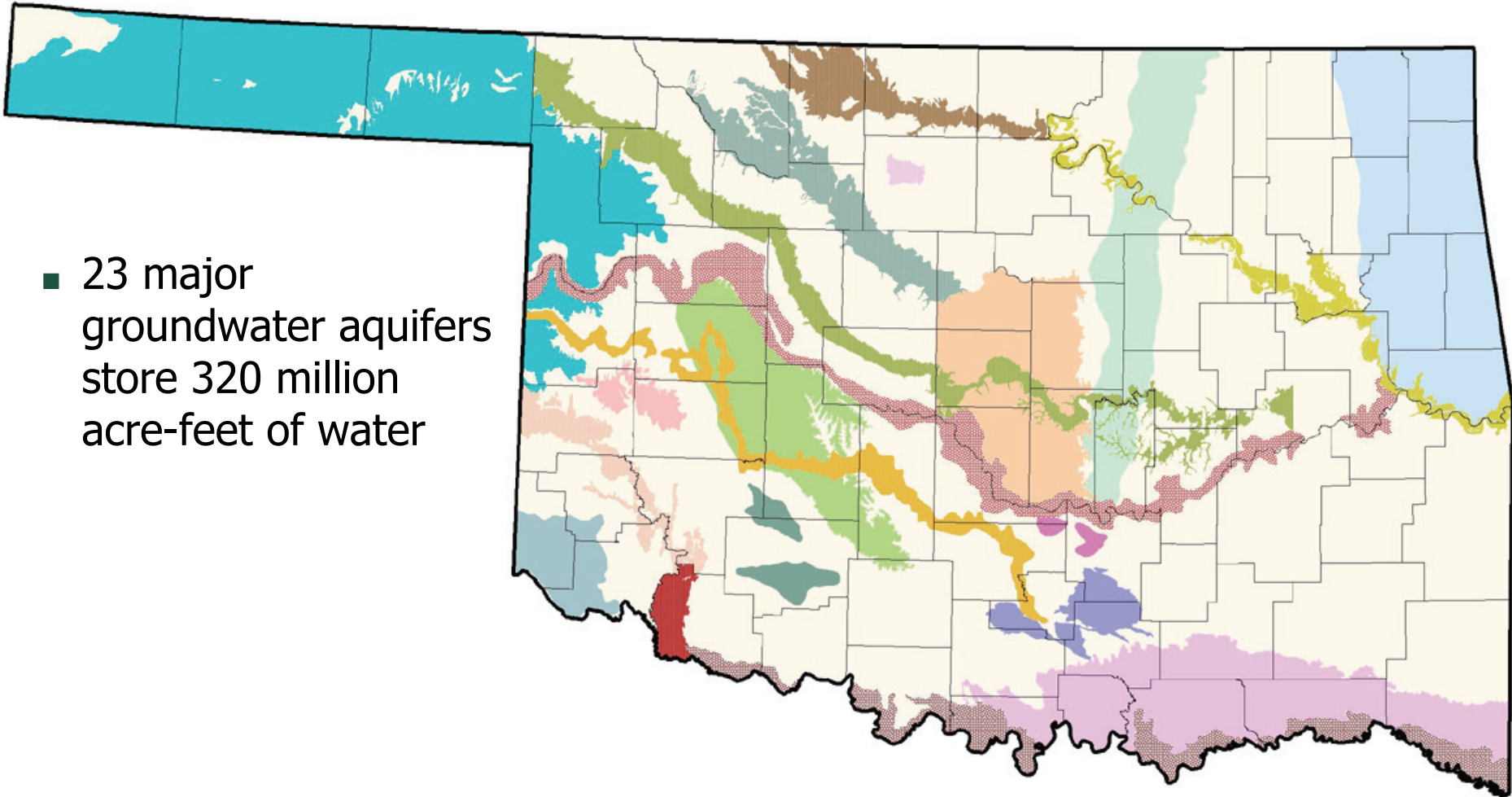
Lake Eufaula:

Oklahoma's largest lake in surface area (105,000 acres)

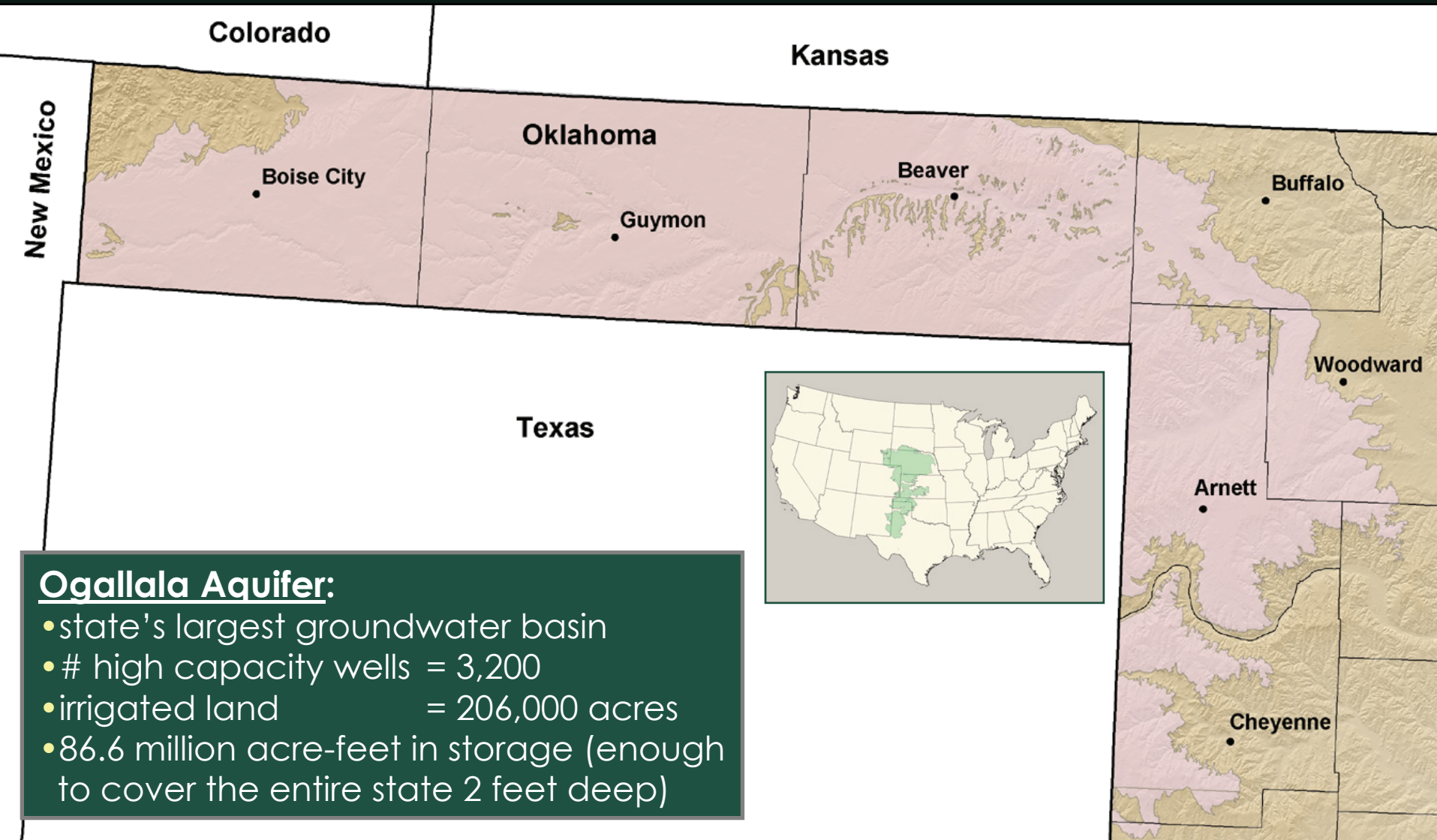


Oklahoma's Water Resources

- 23 major groundwater aquifers store 320 million acre-feet of water



Oklahoma's Water Resources



Ogallala Aquifer:

- state's largest groundwater basin
- # high capacity wells = 3,200
- irrigated land = 206,000 acres
- 86.6 million acre-feet in storage (enough to cover the entire state 2 feet deep)

Oklahoma's Water Resources

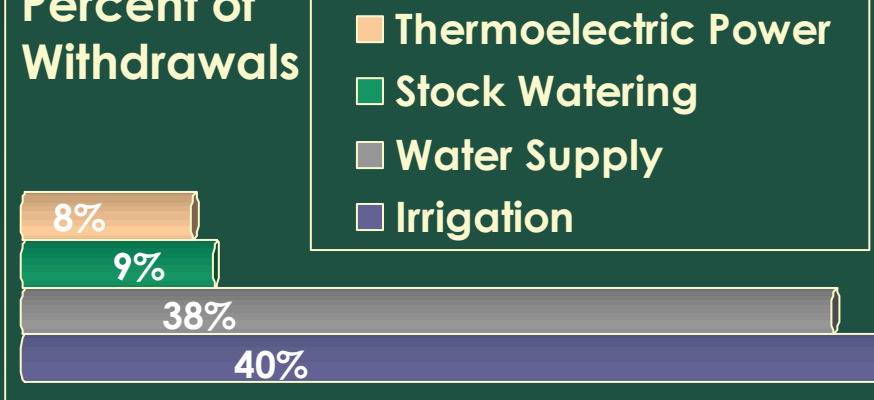
■ Annual Withdrawals (USGS, 2000):

- State Total Water Use	= 1,984,808 ac-ft
■ Surface Water	= 1,118,298 ac-ft
■ Groundwater	= 866,510 ac-ft
- State Public Water Supply	= 756,493 ac-ft
- Texas County Irrigation (groundwater)	= 283,998 ac-ft

• Irrigation accounts for 72% of groundwater withdrawals

• During a peak irrigation day (assuming 1,000 wells pumping at 1,000 gallons per minute), Texas County uses as much water as New York City during an average day

Percent of Withdrawals



Water Use Permitting in Oklahoma

- “Definite stream” = watercourse in definite, natural channel, with defined beds and banks, originating from a definite source or sources of supply; may be intermittent or irregular flow
- “Groundwater” = fresh water under the surface of the earth regardless of the geologic structure in which it is standing or moving outside the cut banks of any definite stream
- Domestic/household uses exempt

Water Use Permitting in Oklahoma

- 2,600 stream water use permits on file (OWRB):
 - appropriate 2.4 million ac-ft/year
- 9,500 groundwater permits:
 - allocate 3.2 million ac-ft/year

		<u>Authorized</u>	<u>Annual Use</u>
Tulsa	=	324,778 ac-ft/yr	139,000 ac-ft
Oklahoma City	=	215,463 ac-ft/yr	136,000 ac-ft

Overview

Oklahoma Stream Water Law

- Stream water is considered to be publicly-owned and subject to appropriation by the OWRB:
 - water use permits approved by 9-member Water Board
 - Applies to water in a “definite stream”
- “First in time, first in right”:
 - first person to apply for the water right establishes a right superior to later appropriators
- “Beneficial use is basis and limit of the appropriation right”

Overview

Oklahoma Stream Water Law

- Definitely a “definite stream”



Overview

Oklahoma Stream Water Law

- Five Points of Stream Water Law:
 - unappropriated water is available in amount applied for
 - there is a present or future need for the water
 - the use is beneficial
 - use will not interfere with domestic or existing uses
 - use will not interfere with uses within stream system of origin

Overview

Oklahoma Stream Water Law

- Domestic Use of Water:
 - ...for household purposes, for farm and domestic animals up to the normal grazing capacity of the land whether or not the animals are actually owned by such natural individual or family, and for the irrigation of land not exceeding a total of 3 acres in area for the growing of gardens, orchards and lawns;
 - ...for agriculture purposes;
 - ...for fire protection;
 - ...by non-household entities for drinking water purposes, restroom use, and the watering of lawns
 - not to exceed 5 acre-feet per year.

Overview

Oklahoma Stream Water Law

- Beneficial use is basis and limit
- Avoid speculation in Stream Water Rights (before permit is issued):
 - Specify use in application
 - Present or future need (785:20-5-5)
 - Out of stream system use must protect reasonably foreseeable future use in stream system (50-year)

Overview

Oklahoma Stream Water Law

- Beneficial use is basis and limit
- Avoiding speculation (after permit issued):
 - Commence project (within 2 years);
 - Completion of works;
 - Forfeiture use-it-or-lose-it (7-year default):
 - requires full use of the annually authorized amount within 7 years of permit issuance and at least once in any continuous 7-year period thereafter;
 - Schedule of Use (exception for large projects) allows phased-in use over a specified period of time (lose if fail to keep schedule).

Overview

Oklahoma Groundwater Law

- Groundwater is considered private property that belongs to the overlying surface owner, although it is subject to reasonable regulation by the OWRB.
 - Municipalities can dedicate platted lands.

Overview

Oklahoma Groundwater Law

- The amount of groundwater apportioned is based upon the amount of land owned, generally two acre-feet of water per acre of land:
 - slightly more or less in basins where detailed hydrologic surveys have been conducted.

Water Use Permitting Requirements

- Applications required (except for domestic use);
- Notice of application (hearing if protested):
 - mail notice;
 - publish notice;
- Administrative Procedures Act process.

Stream Water Calculations

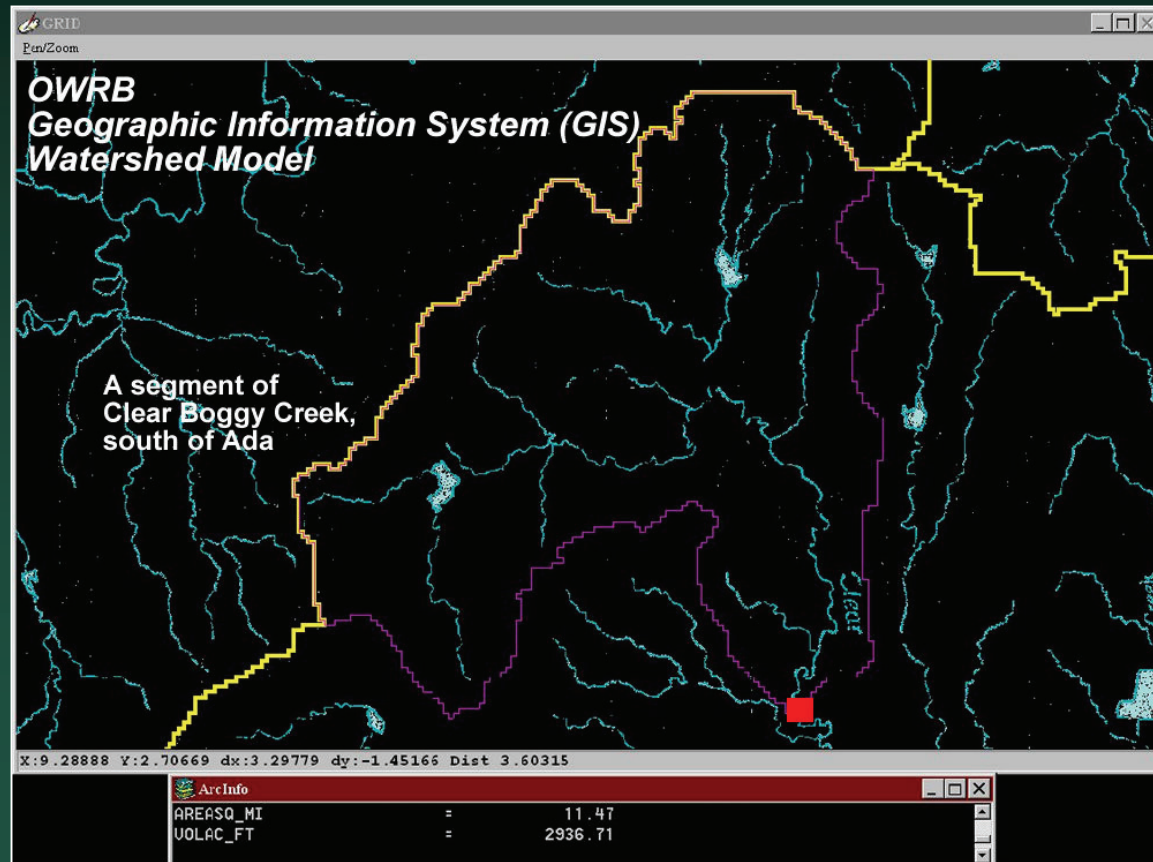
- Is there water available at the proposed diversion point in the amount needed?
 - Calculations based on average annual runoff over the watershed above proposed diversion point. (ArcInfo Watershed Model)
 - All appropriations, estimated domestic uses (6 acre-feet per 160 acres of drainage), and reservoir dependable yields are subtracted out.
- Will the proposed diversion interfere with downstream domestic uses and prior appropriations?
 - All downstream appropriations and domestic uses on the stream from the proposed diversion point to the next major tributary are subtracted off of the determined flow at the diversion point.
 - Additional drainage below the diversion point may be looked at if needed to determine if interference is likely to occur.

Stream Water Calculations

- Is there available water within the stream system?
 - Available water in the stream system in question is determined using the Estimated Available Water from either the “Hydrologic Investigation of the Arkansas River Basin”, January 1998, or the “Hydrologic Investigation of the Red River Basin”, July 1998 minus all appropriations in the stream system and reservoir dependable yields.

Stream Water & Groundwater Availability Determinations

■ Stream Water:

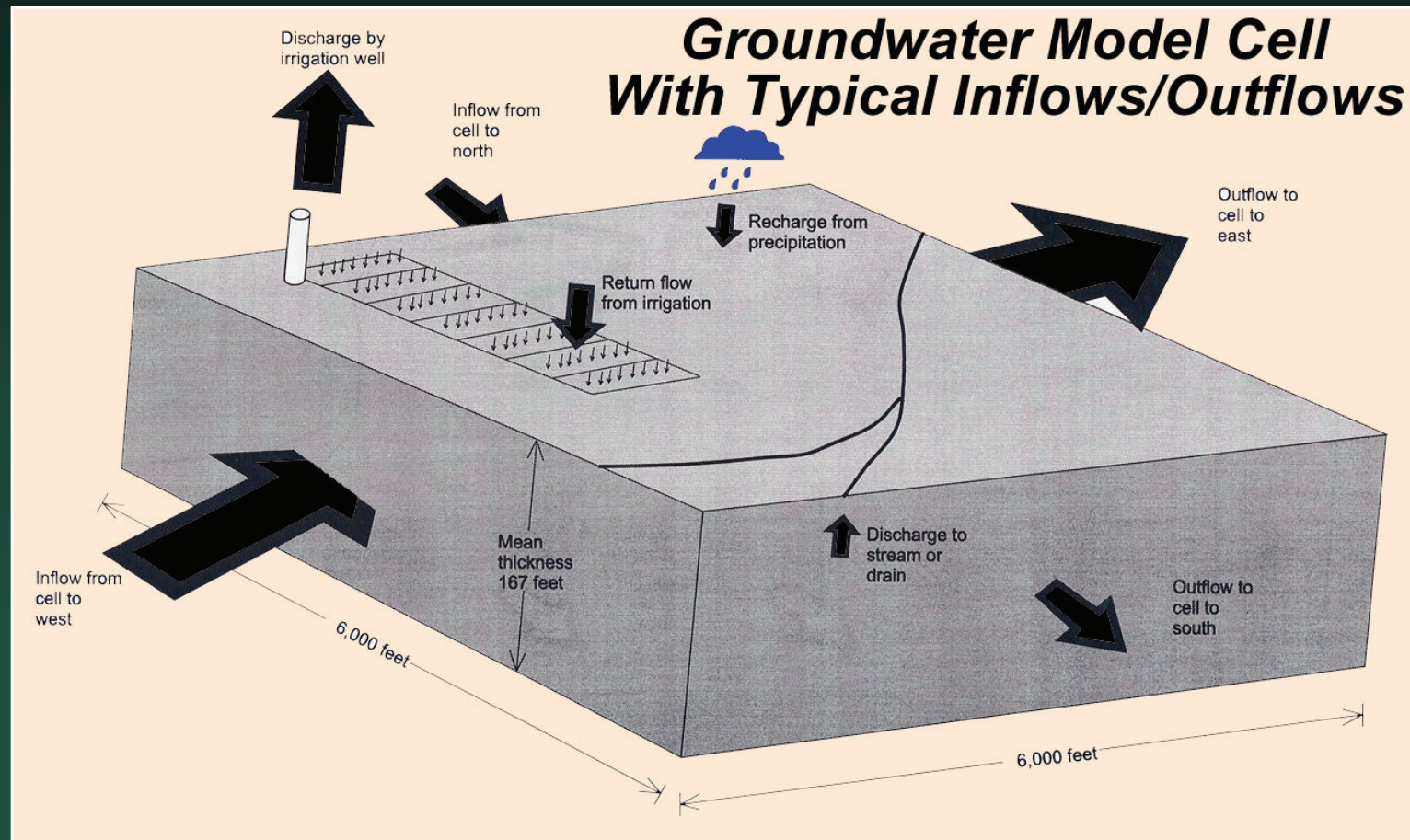


Stream Water & Groundwater Availability Determinations

- Groundwater:
 - Hydrologic Surveys
 - Major Basins:
 - Total Land Area Overlying the Basin
 - Amount of Water in Storage
 - Rate of Recharge and Discharge
 - Transmissivity of the Basin
 - Possibility of Pollution of the Basin from Natural Sources
 - Minor Basins:
 - Present and Reasonably Foreseeable Future Use In The Basin
 - Total Recharge and Total Discharge
 - Geographical Region
 - Other Factors (I.e., area of basin, transmissivity, storage)
 - Determination of Maximum Annual Yield

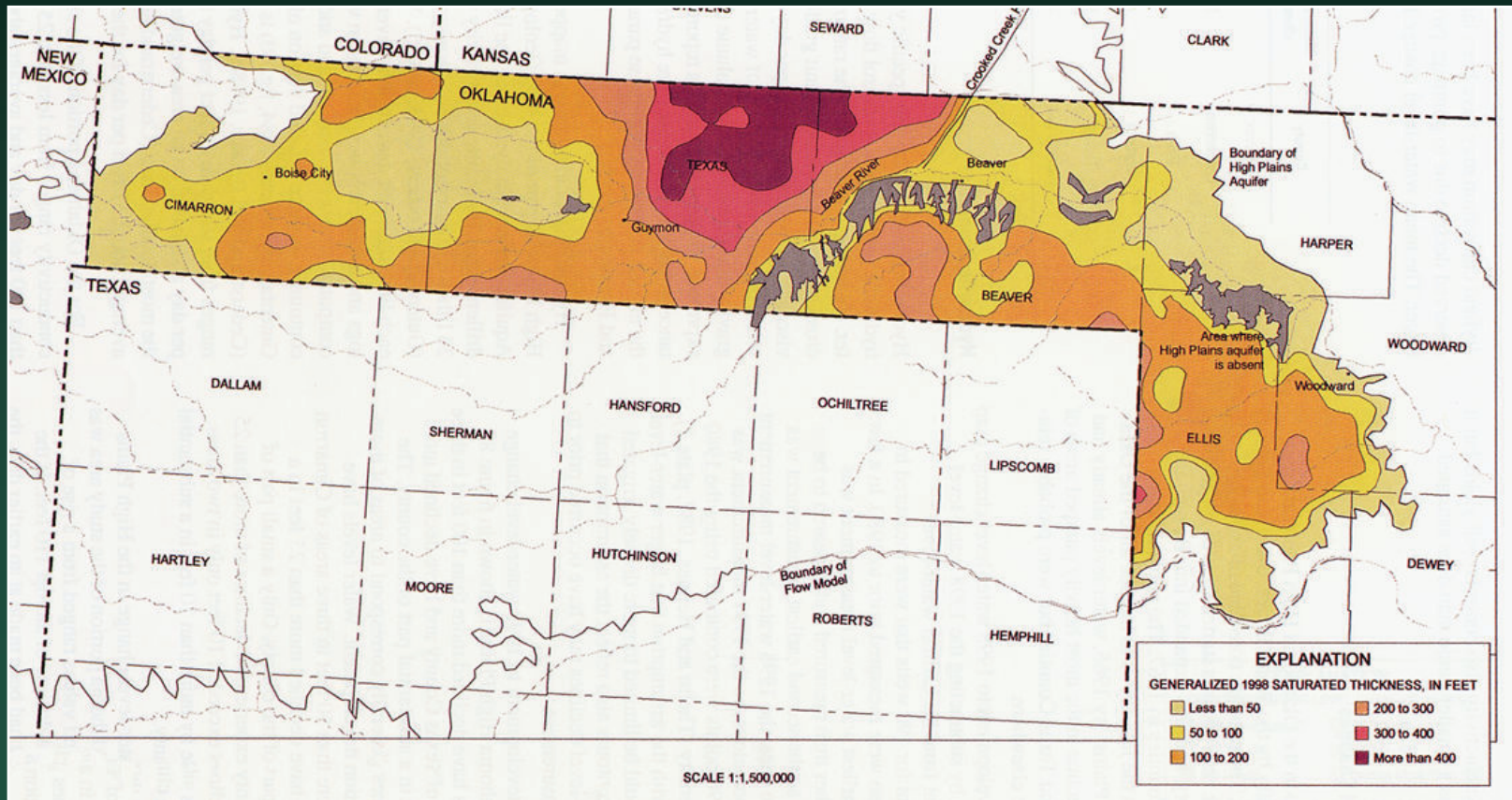
Stream Water & Groundwater Availability Determinations

■ Groundwater Flow Models



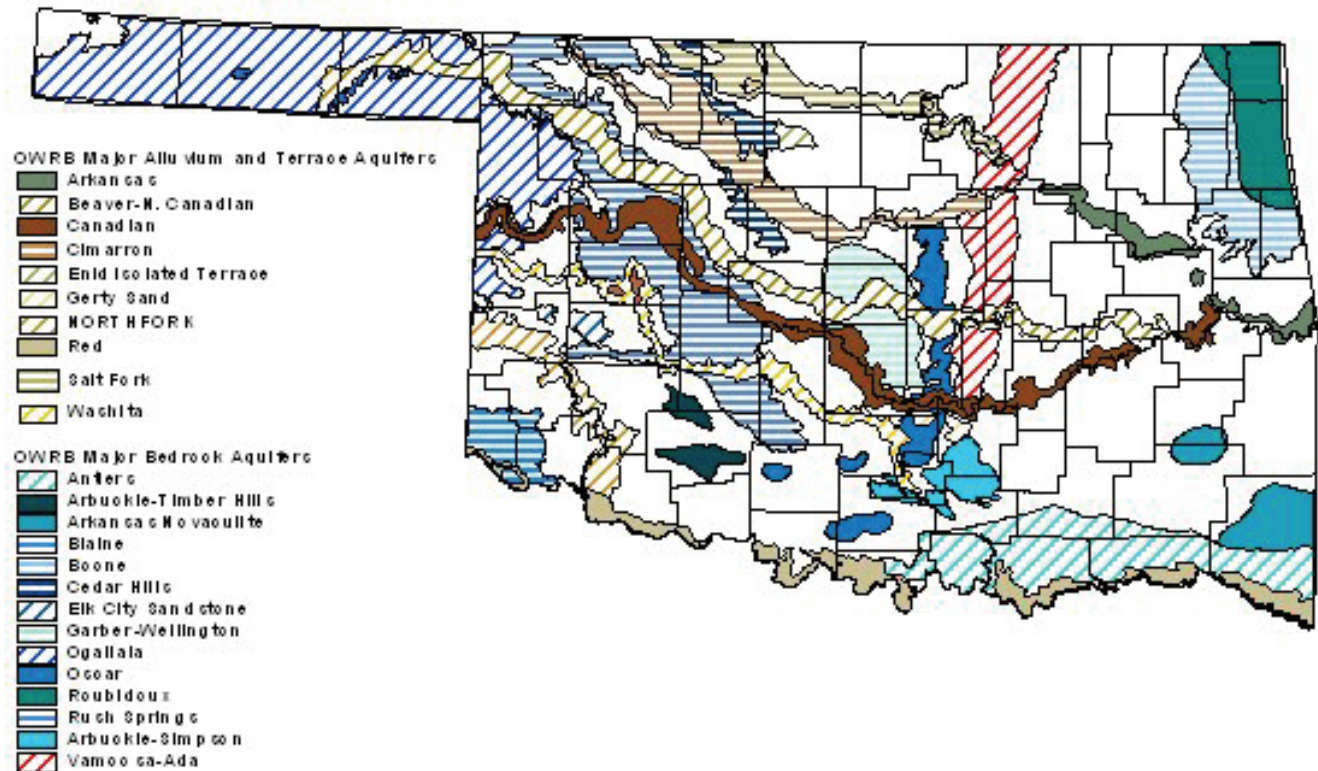
Stream Water & Groundwater Availability Determinations

■ Determinations of Saturated Thickness



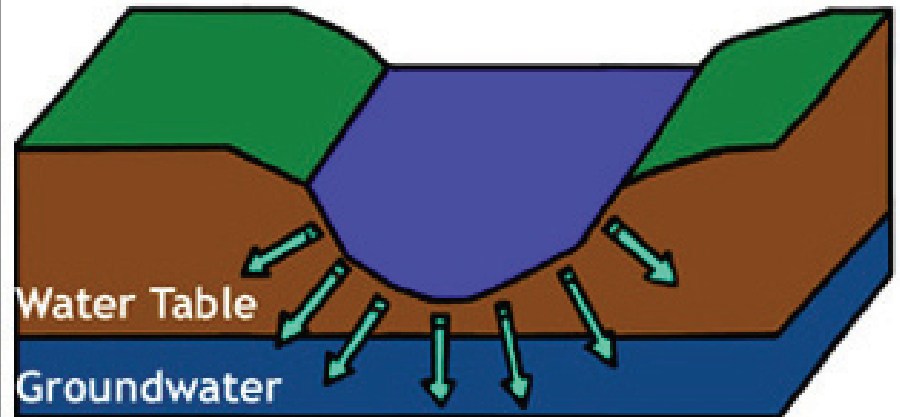
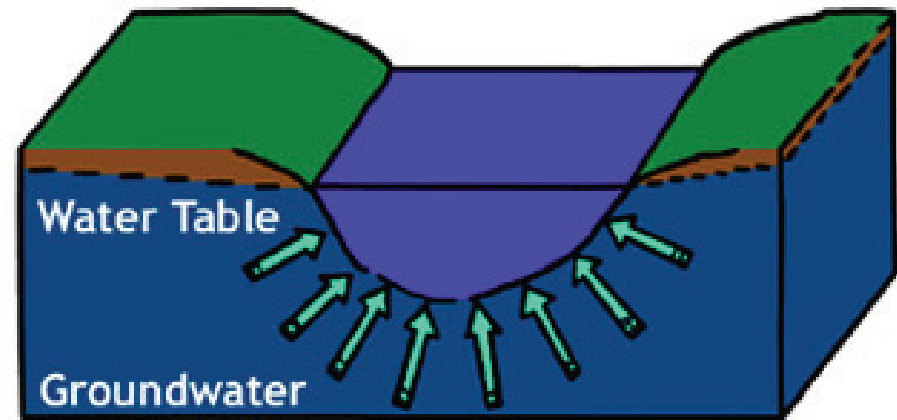
Stream Water & Groundwater Availability Determinations

Major Basin Hydrologic Studies Completed & In Progress



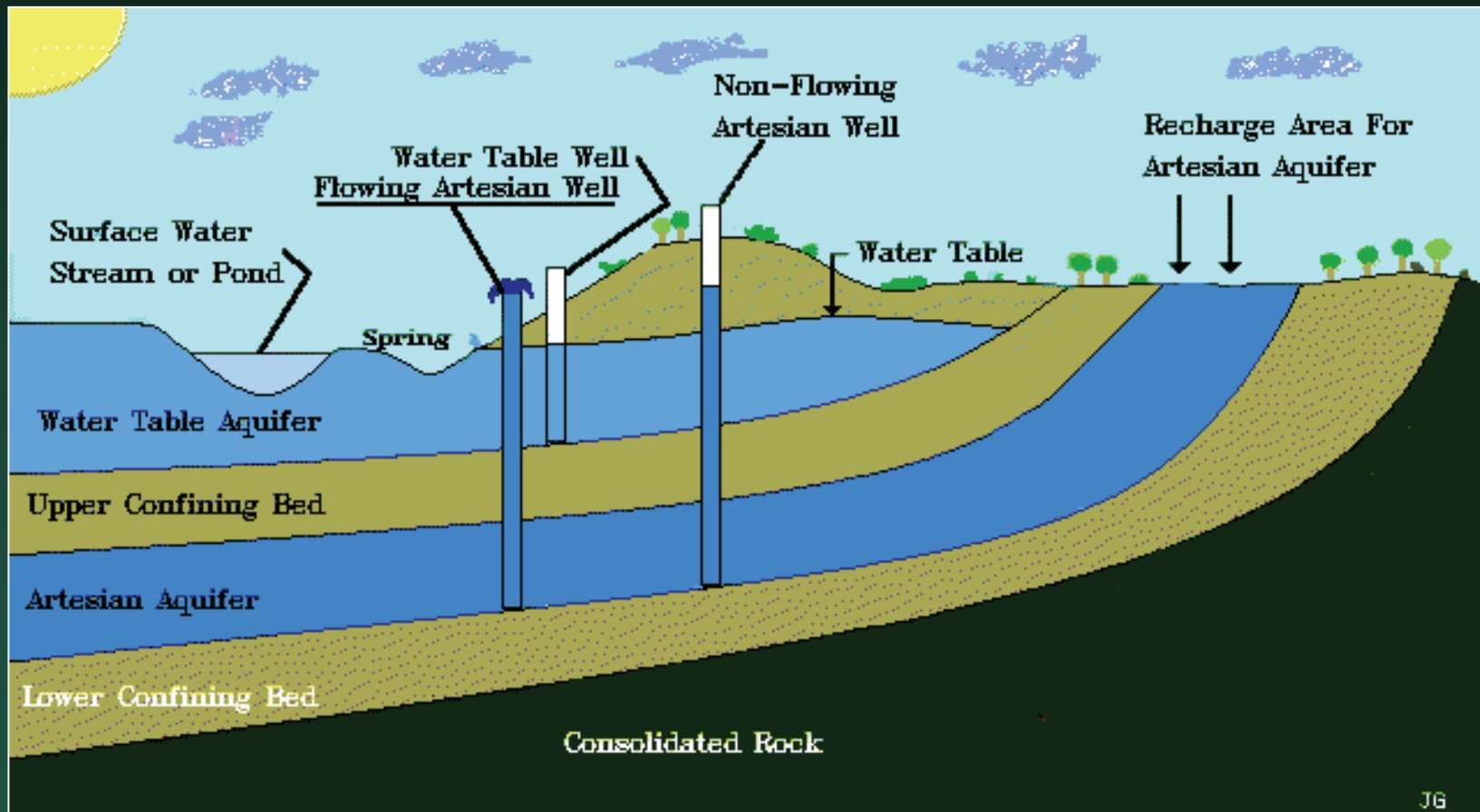
Oklahoma Water Law

- Hydrologic connections ignored in law?



Oklahoma Water Law

- More complicated connections



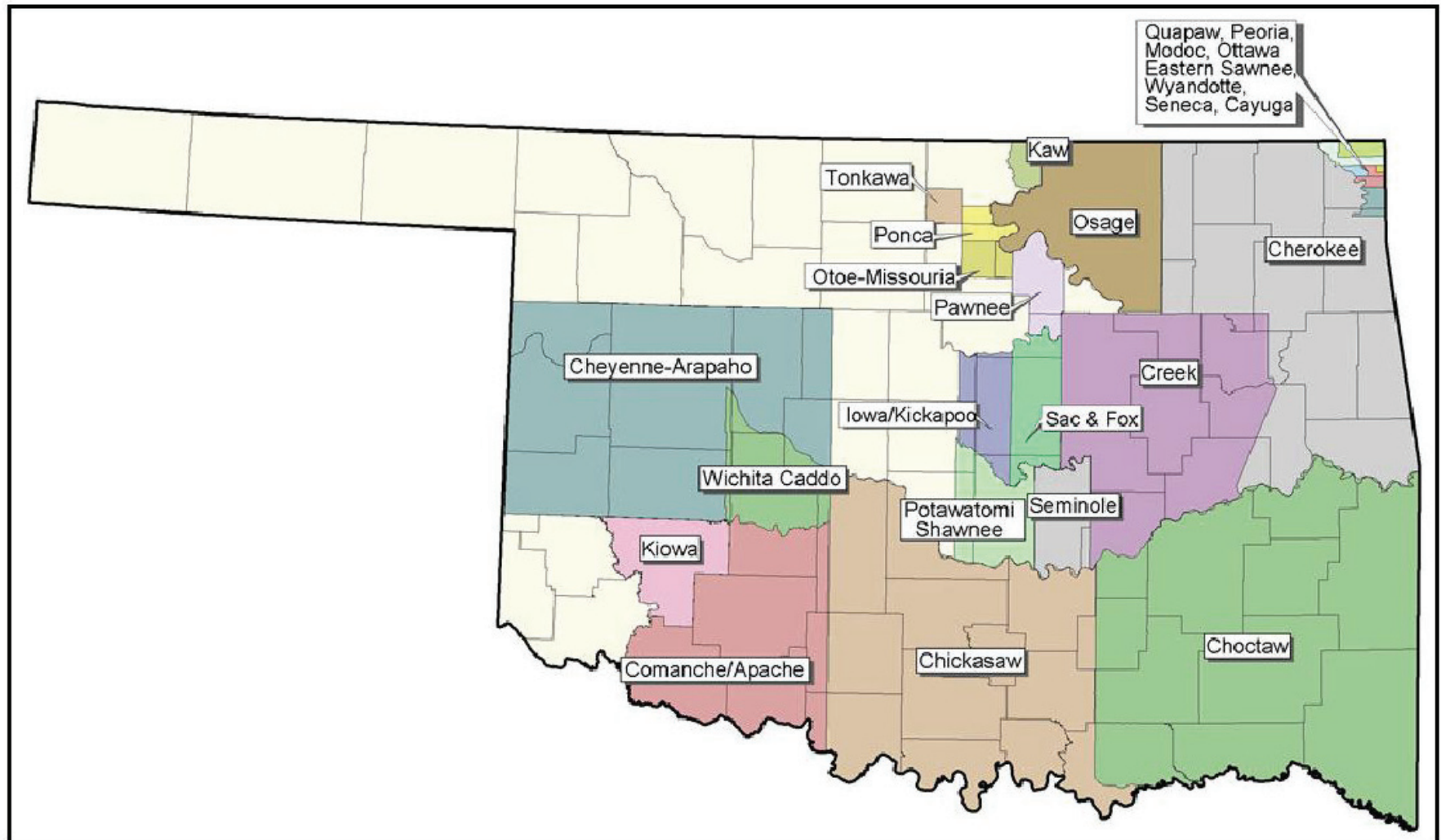
Senate Bill 288

Protection of the Arbuckle-Simpson Aquifer

■ Senate Bill 288:

- Passed by State Legislature in May 2003
- Imposes moratorium on the issuance of any temporary groundwater permit for municipal or public water supply use outside of any county that overlays a “sensitive sole source groundwater basin.”
- Prohibits municipal/political subdivisions outside the basin from entering into contracts for use of water (applies to both pending applications and revalidation of existing temporary permits).
- Moratorium remains in effect until the OWRB completes the Arbuckle-Simpson study and approves a maximum annual yield that will not reduce the natural flow of water from springs or streams emanating from the aquifer.

Indian Water Rights & Claims



Indian Water Rights & Claims

■ Winters Rights:

- Federal government, in setting aside land for Indian tribe, impliedly reserved sufficient water for tribe's use
- Implied reserved right has the character of prior appropriation
 - Given priority date from date reservation was created
- Right differs in that failure to use does not result in loss of water right
- U.S. Supreme Court ruled in 1963 that Indian reserved right amount is water required to irrigate all "practicably irrigable acreage" (PIA) within reservation boundaries
- Indian allottee gets proportional PIA amount from tribe
- Allottee's amount transfers to non-Indian with the land

Indian Water Rights & Claims

- Addressing Indian Water Rights:
 - Litigation:
 - Expensive and time-consuming
 - Court determination unknown
 - Water Rights Settlement:
 - Approved by Congress, state, and tribe
 - Less expensive and time-consuming
 - Better control over results
 - Difficult to get through Congress (none approved since 1995)
 - Compact:
 - State statutes allow for “cooperative agreements” between state/political subdivisions/tribes
 - Requires approval of Joint Committee on State-Tribal Relations and Governor, and (if involving federal trust) Secretary of Interior

State of Oklahoma

OWRB

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