

Maximum Annual Yield Determination

Arbuckle Simpson Groundwater Basin



Sara D. Gibson, General Counsel
Oklahoma Water Resources Board

A-S Springs and Streams

- Beneficial uses supported:
 - Municipal water supply
 - Ada, Sulphur, Tishomingo, Durant, Ardmore, and others (AR 754-756)
 - Recreation
 - Chickasaw National Recreation Area, Blue River Public Fishing and Hunting Area, Lake of the Arbuckles, Turner Falls State Park, and several youth camps (AR 755)
 - Fish Hatchery (AR 1096)
 - Ecological Integrity (AR 1096)
 - Domestic uses of surface water (AR 1096)

Senate Bill 288

An Act

ENROLLED SENATE
BILL NO. 288

By: Gumm and Crutchfield of
the Senate

and

Roan of the House

An Act relating to waters and water rights; stating legislative findings; establishing a moratorium on issuance of certain temporary permits for the use of certain groundwater; providing a definition; establishing a moratorium on municipalities or political subdivisions entering into contracts for use of certain groundwater; amending 82 O.S. 2001, Section 1020.9, which relates to certain groundwater permits; modifying provisions relating to certain groundwater permits; and providing for codification.

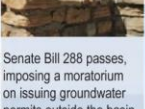
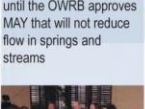


Senate Bill 288

- S.B. 288 (2003)(codified in 82 O.S. §§ 1020.9A, 1020.9B, and 1020.9(A)(1)(d)):
 - Requires “OWRB to approve a MAY that will ensure that any permit for the removal of water from a sensitive sole source groundwater basin or subbasin will **not reduce the natural flow** of water from springs and streams emanating in whole or in part from said basin or subbasin.”
 - Prohibits OWRB from issuing groundwater permits which are “**likely to degrade or interfere with** springs and streams emanating in whole or in part from water originating from a sensitive sole source groundwater basin”

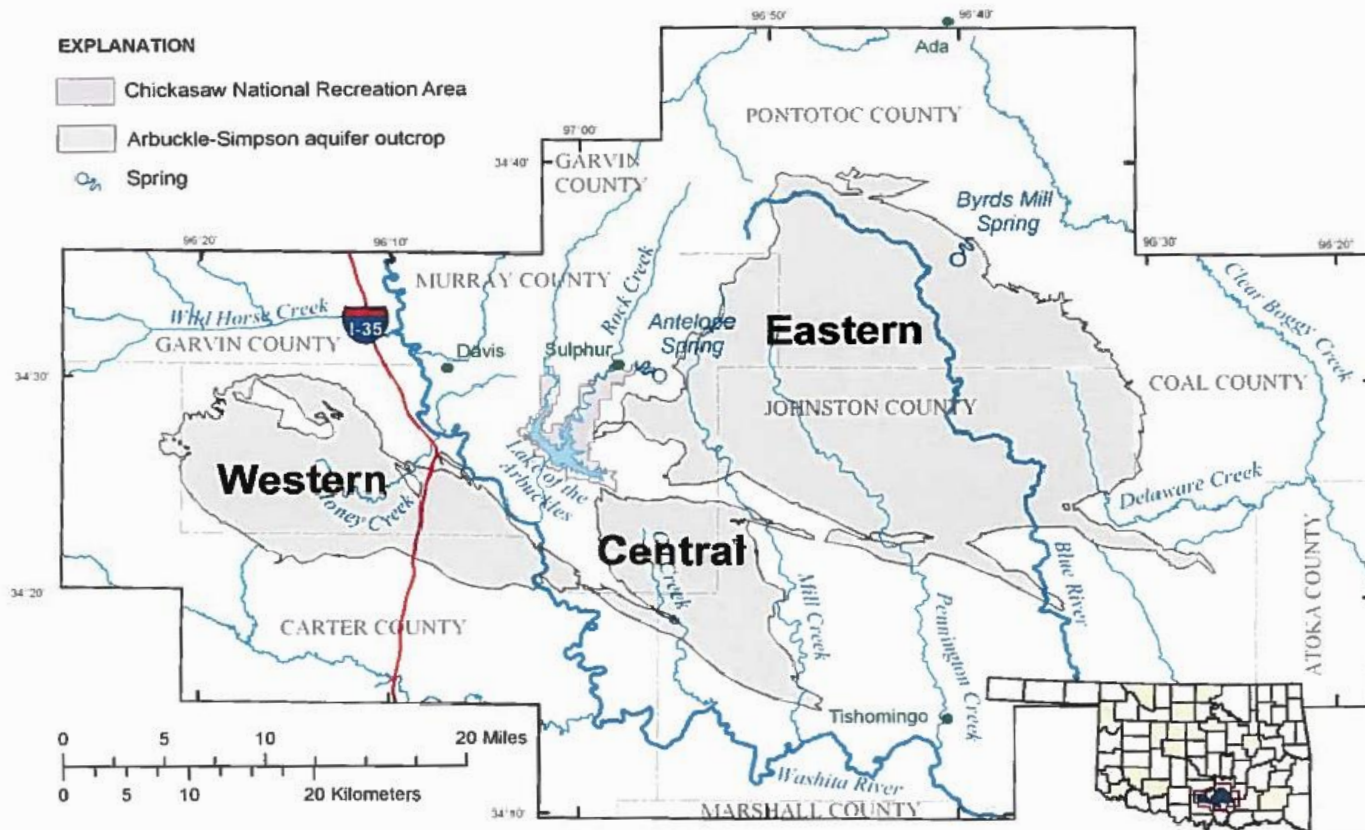
Only legislative recognition of a connection between groundwater and stream water in Oklahoma's groundwater rights administration system

Arbuckle-Simpson Hydrology Study Timeline of Events

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
JAN	 OWRB begins field work Fact Sheet available on OWRB website		Presentation to Oklahoma City Geological Society	Surface Water Subcommittee holds first meeting	Annual Report submitted to USBR	USGS Gravity and Magnetic Data published	Report published: Geochemical Investigation of the Arbuckle-Simpson Aquifer (USGS)				Protestants file action in Oklahoma Supreme Court for extraordinary procedural relief
FEB			Synoptic water level measurements on 64 wells in Hunton Anticline	5th edition of newsletter sent to stakeholders	Annual Report submitted to USBR	Annual Report submitted to USBR	Report published: Analysis of Seismic Reflection Data from the Hunton Anticline (OSU)		Draft tentative determination of MAY presented to Board		Oklahoma Supreme Court issues Stay
MAR	 List of stakeholders developed for email updates; 1st edition of newsletter sent		Geochemical sampling targets estimation of groundwater age and rate of movement	 EPA runs geophysical logs on select wells	Work begins on the Helicopter Electromagnetic and Magnetic (HEM) study	 Work begins on groundwater flow model	Report published: Depth Section Imaging for Airborne Geophysical Survey (USGS)		Notice of prehearing conference and hearing issued		Oklahoma Supreme Court decision allowing case to proceed
APR	 Senate Bill 288 passes, imposing a moratorium on issuing groundwater permits outside the basin until the OWRB approves MAY that will not reduce flow in springs and streams		Fittstown Mesonet station established	OWRB/USGS conduct aquifer test on Murray Co. RWD wells	Work begins on groundwater flow model		Report published: Instream Flow Assessment of Mill Creek (OSU/USGS)	Report published: Three-Dimensional Geologic Model of the Arbuckle-Simpson Aquifer (USGS)	Prehearing conference held in Ada		
MAY			4th edition of newsletter sent to stakeholders	Report published: Indicators of Hydrologic Alteration Streams (Nature Conservancy)					Hearing held in Sulphur		
JUN					Report published: Instream Flow Assessment (OSU/USGS)						
JUL	 2nd edition of newsletter sent to stakeholders										
AUG	Peer Review team established with experts from USGS, OGS, EPA, and OSU	 Deep test well drilled near Blue River	 Mill Creek stream gage installed	Report published: Stream Water Management Network Model (Hydrosphere)	 Arbuckle-Simpson map viewer launched on OWRB website						
SEP											
OCT	USGS installs stream gages in Pennington Creek and Blue River										
NOV	 USGS begins geochemical sampling Presentation to Ardmore Geological Society	 Study team tours Byrd's Mill Spring									
DEC	3rd edition of newsletter sent to stakeholders				Annual Report submitted to USBR	Report published: Distributed Water Resources Assessment (OU)	Final Study Report sent to USBR (OWRB)		Final study report published: Hydrogeology and Simulation of Groundwater Flow in the Arbuckle-Simpson Aquifer (USGS)	 First Proposed Order issued by Hearing Examiner	Board issues Final Order Board denies reconsideration of final order OWRB continues monitoring Arbuckle-Simpson groundwater and surface water

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State of Oklahoma
OWRB
WATER RESOURCES BOARD
the water agency

OWRB
the water agency

Planning the Hydrologic Study

Senate Bill 288

- OWRB reasoned that the language “not reduce the natural flow” was not intended to prohibit any use of connected groundwater
 - Public policy of Oklahoma Groundwater Law to “utilize the ground water resources of the state...” 82 O.S. § 1020.2(A)
- Hydrological study must provide information about natural flows and what conditions will degrade and interfere

Questions?

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