

HB 2639 expands the duties of AGS to require that copies of all data files of known areas of earth fissures be submitted to SLD every five years beginning Jan. 1, 2007. It expands the duties of the Resource Analysis Division of SLD to require maps of areas of known earth fissures to be produced within 90 days of receiving the data from AGS. The maps must include overlays of affected counties, cities, towns, highways and streets; copies must be provided to AGS and the Real Estate Department.

In addition, the bill exempts a subdivider, owner, or licensee from liability to any person or governmental entity if notice of the earth fissure map and website is provided in writing or is part of a public report, or if it was not possible to know that the land was subject to earth fissures before the map was posted.

Visit www.azleg.gov.

AZ County to Monitor Rural Water Use

The 11,400 domestic water wells in Cochise County in southern Arizona present a challenge to county water managers. Because they pump less than 35 gallons per minute (gpm), they are exempt from metering, so whether they pump on average 1 gpm, 34.9 gpm, or somewhere in between is unknown. The county is hoping to get a better idea of how much water its rural residents actually use through a \$100,000 metering program recently funded by

the board of supervisors, according to the *San Pedro Valley News-Sun*.

A 2005 water balance developed by the Arizona Department of Water Resources (ADWR) estimated that domestic well users in the area use an average of about 780 gallons per day (about one-half gpm) for an average household of 2.5 people. Water deficits in the county are being projected based on that figure, Carl Robie, Cochise County Board of Supervisors water conservation specialist, told the newspaper, but he warned that the number may not be terribly accurate. Getting it right is important for water managers, especially if the ADWR estimate is low.

The metering program faces a big challenge: for study results to be meaningful, 476 wells must be randomly selected, and their owners will have to agree to cooperate with the program for its two- to three-year duration, Robie told the *News-Sun*. The owners' identities will be kept anonymous, no restrictions on water use will be required, and the meters and hookups will be free. Owners would simply have to allow officials to enter their property periodically to collect the data. But this is rural Arizona, where government officials are often regarded with suspicion. County officials are hoping that residents will recognize the value of the data and cooperate in the study.

Visit www.svherald.com.

Arizona Water Atlas Released

In July, the Arizona Department of Water Resources (ADWR) issued draft

versions of the first two volumes of the *Arizona Water Atlas*. The atlas eventually will fill nine volumes; additional volumes will be released for comment in the coming months.

"We view the atlas project as central to our mission of securing Arizona's water supply," ADWR Director Herb Guenther said. "It will become a dynamic project, with constant updates as more information is gathered and analyzed."

The *Arizona Water Atlas* is a compilation of currently available water-related information for the state. Volume 1 is an introductory volume; volumes 2 through 7 cover the six planning areas outside of the state's Active Management Areas (AMAs), beginning with the Eastern Plateau planning area, which covers roughly the northeast quarter of the state. The five AMAs are considered together and described in Volume 8. Volume 9 is a summary volume for the entire state.

In addition to providing a comprehensive overview of regional water supply and demand conditions, atlas staff are seeking to compile existing information and identify areas that will require further study, provide water supply and demand information to assist rural Arizona planning efforts, identify water resource issues facing rural Arizona communities and help to identify solutions, and initiate a renewed and more systematic effort by ADWR to maintain a rural Arizona database.

The atlas staff are seeking substantive public and professional comment on the

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HydroFacts

Cubic miles of fresh water in Lake Baikal: **5,660**

Cubic miles in Lake Superior: **2,900**

Cubic miles in Lakes Michigan, Huron, Erie, and Ontario combined: **2,539**

Percent of global fresh water in all six lakes: **39.1**

Although summer's heat is a fading memory, the urban heat island effect is still a hot topic in major metropolitan areas of the Southwest.

Average overnight low temperature, Phoenix, July 1948: **75 F**

Average overnight low temperature, Phoenix, July 2003: **87 F**

Average cooling degree hours*, Phoenix, 1950s: **95,597**

Average cooling degree hours, Phoenix, 1990s: **112,551**

Electricity used for home cooling, Phoenix, 1950s: **7,888 kWh/house/year**

Electricity used, 1994-2003: **8,873 kWh/house/year**

Water consumptively used to generate 1 kWh: **~ 0.7 gals.**

*A measure of energy needed to cool a structure, calculated hourly as the number of degrees that the outdoor temperature exceeds the desired indoor temperature.