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Recharge area study unveiling Thursday

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NWA DEMOCRAT-GAZETTE

Groundwater experts are ready to explain Thursday the results and recommendations from a 14-month study aimed at protecting the Cave Springs Recharge Area.

The study says the endangered Ozark cavefish and residential development can co-exist in the Cave Springs area if best management practices and buffer zones along streams are implemented to protect water flowing underground where the fish live.

"Folks will have the opportunity to hear from some of the nation's leading experts in protecting surface water and groundwater quality in areas of karst topography," said Tim Conklin of the Northwest Arkansas Regional Planning Commission. "At Thursday's meeting, we'll have the consultants presenting their results and recommendations as well as the steps cities may want to take to protect water quality in the recharge area."

The Cave Springs recharge area is more than 12,500 acres of land where Cave Springs, Lowell, Springdale and Rogers come together. The ground underneath is porous karst, which allows water to flow through and form the Cave Springs spring. Developers haven't built much in the area largely because of concerns about harming the cavefish habitat, but the recharge area contains a lot of

See **STUDY,** Page 4B

On the Web

For Cave Springs Karst Study comments or questions the contact telephone number is 479-202-1825 or the web address is www.cavespringskarststudy.com. The website contains the data collected and used for the study and recommendations, maps and other information.

Study

• Continued from Page 1B

prime real estate for westward expansion of the metropolitan area.

The study recommends local cities enact regulations to allow development and protect the spring and cavefish.

The public presentation will be 6 p.m. Thursday at Darr Elementary School, 6505 S. Mount Hebron Road, in Rogers.

Northwest Arkansas Regional Planning Commission hired Crafton Tull, Wright Water Engineers and Ozark Underground Labs to fill in gaps of missing information from previous studies on the direct and indirect Cave Springs Recharge Area. The recharge boundaries have been identified and the results verified to be correct by a group of stakeholders.

"In karst settings, groundwater is very sensitive to what's going on on the surface," said Tom Aley, with Ozark Underground Engineers. "Once contaminated water gets in the springs, we can't do much about it. The only way to effectively take care of ground water is to protect the water quality on the surface."

The study recommends local cities enact regulations to allow development and protect the spring and cavefish.

Cave Springs, Springdale, Lowell and Rogers are being asked to adopt a common development ordinance, based on a Rogers ordinance, for the recharge area. Cave Springs would see the most impact from regulations because the most critical areas lie within the Cave Springs city limits. Public hearings before planning commissions in each city are being set up.

Cavefish and another endangered animal, the gray bat, call the springs home.

Cavefish are listed as threatened and gray bats are listed as endangered by the federal government.

Cavefish are considered to be the water quality version of the canary in the coal mine.

Springs are underwater steams that work like a pipe, allowing water to move from one place to another and occasionally rise to the surface. Water goes in one place and comes out in another. Surface water going in, runoff from rainfall for example, needs to be filtered by plants and soil so the underground spring doesn't get contaminated.

The recharge area is broken into an indirect area of about 10.6 square miles, or 6,813 acres, and a more critical direct recharge area of about 8.9 square miles, or 5,702 acres. A lot of the direct recharge area immediately around Cave Springs is either developed with residential subdivisions or cannot be developed because of flood plains and steep terrain.

The most critical portion of the direct recharge area is about 1.8 square miles, or 1,167 acres, near the Cave Springs Cave where geologic features allow water to go directly into the springs.

The study comes with some recommendations, including the use of buffer areas along sensitive streams and features such as runoff detention ponds along Interstate 49 and Arkansas 264, piping sewage out of the area and best management practices for development.

I-49 roughly bisects the recharge area while Arkansas 264 runs right through some of the highly vulnerable area.

Streams and creeks that directly recharge the Cave Springs spring would require buffering of differing degrees along both sides. The regulations would tell developers how wide the buffers need to be.

Grading, striping or other soil-disturbing work would be prohibited or restricted in buffer areas as would filling or dumping, ditching or other systems used to drain buffer areas. Other prohibited uses would include the storage or application of pesticides or herbicides, fueling facilities, the storage or operation of motor vehicles, buildings or impervious surfaces and the land application of biosolids.

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