

Planning for future water needs a concern here

BY WENDY MARTIN

In the 1970s conventional wisdom held that a river flowed underground beneath Mason County, with its source reaching back to the Allegheny Mountains.

In the intervening years a great deal of research has been conducted, and data continues to be gathered - particularly in Mason County.

In 2006, as part of a pilot program, a pair of regional water supply planning committees were created in Illinois, one in a ten county area by Chicago, and the other in the 15 county region in the area of the Mahomet Aquifer.

The purpose of the committees was to determine how much water will be needed, how much water will be available, and what will be the environmental impacts of supplying more water through the year 2050.

The East Central Regional Water Supply Planning Committee hosted a meeting in Havana Monday night to share the results of the local studies.

Committee member Jeff Smith of Easton, note that the water trend will be to use more in the future, with usage expected to double from just over 300 million gallons per day to 600 million gallons, with a population increase from about 1 million now to 1.3 million in the future.

Currently, more water is used for irrigation and agriculture - mostly in Mason and Tazewell counties, than by public water supplies for all 15 counties combined. In 2005 Mason County used 94 million gallons per day of water for all uses, compared to Champaign County at 35 mgd, or DeWitt County at 2 mgd.

Smith pointed out that among all 15 counties, Mason County is the leader in terms of how much water is withdrawn from the aquifer per year.

"That is not surprising to any of us. We take a lot out during the summer months. Tazewell county is second. They have a lot

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of irrigation and also industry and some good size cities," Smith said.

The numbers were more of a surprise to representatives of Champaign County, McLean County and Macon County.

"Folks in the eastern side of this region don't realize that our aquifer recharges a lot differently here than over on the eastern side," Smith said.

Recharge in Mason and southern Tazewell counties comes primarily from rainfall, and most of what is taken out by irrigation goes right back in through the sandy soil.

Not far past the Logan County line the aquifer and soil characteristics change from an unconfined aquifer to one that has an aquitard on top of it.

"The tight silt and clay soils and sub soils make it difficult for the water to permeate down through it. It is a very slow process over there," Smith said.

He said that in Champaign County there might be only one inch of recharge to the aquifer per year while Mason County can have ten inches to two feet in a year.

Water demand trends indicated that Champaign-Urbana will see the greatest draw-down in the aquifer in the future, but it will be the communities that use surface water supplies - Springfield, Decatur, Bloomington and Danville - that will likely

face water shortages, especially with the recurrence of a multi-year drought, Smith said.

"Those areas are the ones that need to be doing something for water planning for their future - immediately," he added.

Smith said their vision is that the East Central Water Supply Planning Committee will be a model for regional water supply planning and management.

"We want to ensure the provision of dependable and adequate supplies of clean water for all users at a reasonable economic and environmental cost to enhance public health, and the quality of life," he said.

Smith explained that the group does not want state or federal mandates to be required, but to deal with water resources locally and regionally and to inform the public about what planning is all about, what surface water resources are, and to use adaptive management to adapt to changes that take place over time.

"We want to establish a permanent process for regional water supply planning and management, and have the plan updated every five years," Smith proposed.

"We want to ensure sustainable water supplies with voluntary standards to protect the aquifers and surface waters and ecosystems while providing sufficient water to meet demand," he added.

All water operators - city water departments, water utility companies and any well operators will need to increase water conservation and reduce water losses. "That's a no brainer there," Smith said.

One of the conclusions of the group is to expand the Mahomet Aquifer Consortium to include surface water suppliers as well as those who depend on the groundwater resources, and expand the number of counties to the 15 in the study area. They also recommended development of drought preparedness plans and increasing conservation and reducing waste.