

Water Demand Study Meeting for Champaign, Ford, Iroquois, and Vermilion Counties

The following is a brief synopsis of the August 20, 2007 water supply planning meeting held in Rantoul, Illinois targeting Champaign, Ford, Iroquois, and Vermilion counties.

Meeting Location: Rantoul, Illinois

Meeting Date: August 20, 2007

Targeted Areas: Champaign, Ford, Iroquois, and Vermilion counties

Main Concerns:

1. Water availability
2. Ethanol production

Meeting Attendees

Group Represented	Number of Attendees
Public	27
East Central Illinois Regional Water Supply Planning Committee	4
Mahomet Aquifer Consortium Board	2
Illinois State Water Survey	3
Illinois State Geological Survey	1
Wittman Hydro Planning Associates (Water Demand Study Team)	4
Total	40

Meeting Summary

Susan Licher of Wittman Hydro Planning Associates, Inc. (WHPA) gave a presentation on the scope and time line for the water supply planning project. This project involves a fifteen county region in East-Central Illinois and was initiated in response to Governor Blagojevich's Executive Order 2006-1. WHPA, in cooperation with Dr. Ben Dziegielewski from Southern Illinois University, was hired to conduct the demand study. Susan Licher's presentation focused on the background of the water supply planning initiative, the methods associated with assessing water demand, and the historical data being used in the water demand study.

After the presentation was completed, Susan invited attendees to ask questions.

One gentleman voiced a concern about the well that had been drilled for an incoming ethanol plant that is located a short distance from his well. He wanted to know if pumping would significantly affect the water-level in his well.

Jack Wittman of WHPA said that one plant would likely not have much of an effect on his supply. If many plants are introduced to the area, on the other hand, the impact could be significant. This is why regional demands are being examined. Jack suggested that the gentleman contact the State Water

Survey. The survey can test the water level within the aquifer before and after the plant comes on-line to see if the plant caused a significant drop in the water level. During this discussion, it was noted that the water supply planning effort is regional in scale and will assess heads in the aquifer and areas of possible conflict and/or abundance.

Someone asked how much water it took to produce one gallon of ethanol. George Roadcap and Ed Mehnert, representatives of the Illinois State Water and Geological Survey, said that they thought it took about six to seven gallons to produce one gallon of ethanol. Jack Wittman said that he thought the numbers were closer to ten gallons of water per gallon of ethanol. The State Survey representatives added that ethanol plants use about 2 million gallons of water per day and release about 300,000 gallons of water per day into surface water sources. The baseline water demand scenarios will include the demand for all permitted ethanol plants and the “increased use” scenario will include potential future plants.

Bradley Uken commented that the aquifer changes as you go from east to west. The aquifer in the eastern portion of the study area is a confined aquifer while the western portion is unconfined. Therefore, the differences in how the aquifer recharges is different. Bradley stressed that due to these differences the best available data must be used in each portion of the aquifer. The eastern portion of the aquifer has less data available especially in regards to irrigation and cooperation from all parties will be required in order to properly assess the demands and supplies.

Susan Licher stated at the end of the discussion that the recommendations that will be made by the East Central Illinois Regional Water Supply Planning Committee must fall within existing regulations, laws, and property rights.

At the end of the meeting, the group was divided into sub-groups based upon water-use sector and questions and concerns were addressed within those groups. Each participant was provided with a packet of information regarding water-demand within their specific sector and a questionnaire that they were asked to fill out and return to WHPA.

ADDENDUM

After the meeting, WHPA, reviewed existing information on the amount of water needed to produce one gallon of ethanol. An article published by the Institute for Agriculture and Trade Policy (Kenney and Muller, 2006) states that a review of the existing data indicate that most plants consume from 3.5 to 6.0 gallons of water per gallon of ethanol produced. The Renewable Fuels Association estimates that 3 gallons of water are used per gallon of ethanol produced. Below are some links to websites that have additional information regarding ethanol.

<http://www.ethanolrfa.org/>

<http://www.epa.state.il.us/air/permits/ethanol-plants.html>

<http://www.agobservatory.org/library.cfm?refid=89449>