

**Water Supply Planning for Illinois**  
*October – December 2006 Progress Report*

Illinois State Water Survey and Illinois State Geological Survey

The following is a summary of activities of the Scientific Surveys from October 1, 2006 through December 31, 2006 related to the Water Supply Planning Initiative.

The Initiative proposal between the IDNR, Office of Water Resources and the University of Illinois was fully executed. Titled Improving Water Supply Planning and Management in Illinois, the contract runs from July 1, 2006 through June 30, 2009 and is in a total amount of \$2,637,000.

The draft brochure on the water supply planning initiative was finalized and it was printed by CMAP. An initial distribution was made at the November 17, 2006 Open Forum in Oak Brook and to IDNR, MAC, ISWS and ISGS. Individual copies are available from any of the preceding organizations. Multiple copies are available through CMAP and it is available on-line at:

<http://www.sws.uiuc.edu/iswsdocs/brochures/ISWSWaterPlanningBrochure.pdf>.

The Water Survey hired F. Edward Glatfelter as a Water Supply Planner to coordinate the scientific and technical support from the Surveys with IDNR, CMAP, the MAC and the planning groups. Ed was the Executive Director of the Central Lake County Joint Action Water Agency, Lake Bluff, IL and has over 25 years experience in the Illinois potable water industry. He began his duties at the Water Survey on October 23<sup>rd</sup>.

Work began on the development of an ISWS web site for water supply planning.

Proposed water supply planning initiative enhancements for Federal funding were prepared.

ISGS staff began compiling geologic information for the Fox River Basin (FRB). ISWS staff discussed technical aspects of groundwater modeling of the FRB. ISGS and ISWS staff met December 15 to discuss coordination of efforts and the timeline for various geologic mapping and water flow modeling tasks. These discussions will continue as a plan is formulated regarding field activities to supplement geologic mapping and flow modeling of the FRB. ISGS staff meetings addressed major data compilation and mapping goals for the FRB and other parts of the Northeastern Illinois region. Principal discussions among ISWS staff revolved around modeling of the basal sand and shallow bedrock within the FRB and measurement of heads in that aquifer “system” vs. measurement and modeling of heads in shallower sands. Such shallower, areally-confined sand aquifers are less likely to be used significantly for water supply but, are more likely to be contributing water to wetlands, fens, and other surface-water features. There will be some areas, e.g., along the Fox River, where the topographic position of a wetland/natural area is connected to the basal aquifer, but this will not be the case across much of the FRB. Therefore, modeling of the FRB for the WSP initiative must emphasize the basal

aquifer and likely will ignore connections to many wetlands/natural areas within the FRB. This may come as a surprise to some of the regional committee members (and others), but available resources limit more complete analysis. This should be articulated early-on to stakeholders.

ISGS staff began compiling information and maps for characterization of the hydrogeology within the Central Illinois region.

ISWS staff, with input from ISGS, completed the final proposal from the Surveys to Illinois American Water Company (ILAWC), for \$600,000 over 3 years. The proposal was sent to the University of Illinois on December 6.

ISWS staff assisted with a test of the Mahomet Aquifer at a site just west of Champaign, conducted by engineering consultants to The Andersons. A review of the data collected, data analysis, and a draft report submitted to The Andersons also was conducted.

Water use data for 2005, collected through the ISWS Illinois Water Inventory Program (IWIP), continue to be entered into IWIP databases while preparations for mailing the 2006 IWIP questionnaire were begun. As mentioned in the previous progress report, the highest rate of questionnaire response in the history of IWIP is occurring. Follow-up contacts with facility superintendents afford an opportunity to update previous years' withdrawal data, in cases where facilities did not report in some years. This improves historical data, all of which will be helpful as these data are used for creating future water demand scenarios.

ISWS staff met to discuss the preparation and use of climate datasets, especially for surface water models. Historical climate datasets are used to calibrate and test the models and future climate scenarios (temperature, precipitation, etc.) provide input for modeling plausible future streamflows. Data can be compiled for any watershed in the state, but focus initially will be on the FRB and the Sangamon River Basin.

**Meetings:**

- Oct 4, MAC Board, Urbana
- Oct 12, Intergovernmental Coordinating Committee on Groundwater, Springfield
- Oct 24, MAC Executive Board, Champaign
- Oct 31, MAC general membership meeting, Champaign
- Nov 4, MAC Board, Champaign
- Nov 6, Conference call, Pontiac Group
- Nov 17, CMAP Open Forum, Oak Brook
- Nov 20, MAC Executive Board, Champaign
- Nov 27, Barrington Area Council of Governments (BACOG), Barrington
- Nov 28/29, Council of Great Lakes Governors (CGLG) Water Conservation & Efficiency Initiative, Skokie
- Dec 1, Conference call: Coordination between OWR, MAC, CMAP, ISWS and ISGS
- Dec 6, Kendall County Mayors & Managers, Yorkville

- Dec 7, State Water Plan Task Force, Springfield
- Dec 8, Meeting with several Grundy County Board members & County Planning Director, Morris
- Dec 12/14, CMAP Stakeholder Group meetings, Chicago
- Dec 14, MAC general membership meeting, Champaign
- Dec 18, CMAP, Agriculture stakeholder meeting, St. Charles
- Dec 18, Consumptive water use for electrical power generation, meeting with representatives from IERG, SIU-C, and ISWS, Champaign

**Presentations:**

- Oct 4, Champaign County Chamber of Commerce Ambassadors breakfast, *Champaign County's Mahomet Aquifer*, presenter Allen Wehrmann
- Oct 4, Illinois Water 2006 conference, Panel Session on *Regional Water Supply Planning under Executive Order 2006-01*, presenters Gary Clark (OWR), Derek Winstanley, and Allen Wehrmann
- Oct 26, Governor's Pollution Prevention Awards, *Water Supply Planning under EO 2006-01*, presenter Derek Winstanley, Peoria
- Nov 15, NE Illinois Regional Groundwater Protection Planning Committee, *Kendall County Project and EO 2006-01 Update*, presenter Allen Wehrmann
- Nov 17, Open Forum, Oak Brook. *Water Availability in NE Illinois*, presenter Derek Winstanley
- Nov 20, Farm Bureau Radio interview on water supply planning, Derek Winstanley
- Nov 21, Gibson City Lion's Club, *The Mahomet Aquifer for Ethanol Production*, presenter Allen Wehrmann, Gibson City
- Nov 21, Kane County Technical Advisory Committee, *Water Supply Planning under EO 2006-01*, presenters: Scott Meyer; Doug Walker; Ed Glatfelter, Geneva
- Nov 29, Channel 3 TV interview on the Mahomet Aquifer, Derek Winstanley
- Dec 6, Southern Illinois Water Operators, *Illinois Water Supply and Ethanol Production*, Tim Bryant, Rend Lake Conference Center

**Hiring:**

- Water Supply Planner at ISWS, Ed Glatfelter, started October 23, 2006
- Hydrologist at ISWS, scheduled to start January 2, 2007
- Hydrogeologist at ISGS, scheduled to start January 5, 2007
- Database Programmer - search in-progress