



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

**PAT QUINN**, GOVERNOR

**JOHN J. KIM**, INTERIM DIRECTOR

## INTERAGENCY COORDINATING COMMITTEE ON GROUNDWATER (ICCG) MEETING MINUTES

February 23, 2012

The meeting was called to order at 10:00 am at the Illinois Environmental Protection Agency's Mississippi River Conference Room. Rick Cobb chaired the meeting of the ICCG, for Marcia Willhite, and asked for introductions. The following were in attendance:

|                  |   |
|------------------|---|
| Bill Compton     | Groveland Township Water District               |
| Jack Norman      | Kaskaskia Group of the Sierra Club              |
| George Czapar    | ISWS/University of Illinois                     |
| Kelly Warner     | USGS  |
| Vickie Broomhead | IDNR/OMM/LRD                                    |
| Dan Wheeler      | DCEO - OCD                                      |
| Don Keefer       | ISGS/ University of Illinois                    |
| Anthony Dulka    | IEPA/ Groundwater Section                       |
| Ed Wagner        | IEPA/ Groundwater Section                       |
| Steven Gobelman  | IDOT  |
| Paul McNamara    | Southwest IL Metropolitan and Regional Planning |
| Dave Johnson     | IDPH  |
| Rick Cobb        | IEPA/ Groundwater Section                       |
| Walt Kelly       | ISWS  |
| Todd Rettig      | IDNR/ Realty & Environmental Planning           |
| C. Pius Weibel   | ISGS/ University of Illinois                    |
| Bob Kohlhase     | Farnsworth Group                                |
| Alec Messina     | IERG  |

The following ICCG representatives were not in attendance:

|                 |                      |
|-----------------|----------------------|
| Shelly Bradley  | OSFM                 |
| Warren Goetsch  | IDA                  |
| Arlan Juhl      | IDNR/Water Resources |
| Gary McCandless | IEMA/DNS             |
| Marcia Willhite | IEPA/ BOW Chief      |
| Susan Barron    | IDOA                 |

## Opening Remarks

Rick Cobb opened the meeting and Bill Compton announced that there will be a separate GAC meeting after the ICCG and everyone is welcome to stay and attend. Rick introduced the newest members of the ICCG. Walt Kelly, a geochemist with the ISWS, is replacing Al Wehrman. Dave Johnson is replacing Jerry Dalsin from IDPH. Kelly Warner is replacing Doug Yeskis from the USGS.

## Approval of the November 10<sup>th</sup>, 2011 Minutes

Rick called for a review of the minutes from the November meeting. While members were reviewing the minutes, Rick reminded the group and informed the new members that these two committees are statutorily required and therefore the minutes are public record and do get audited. Rick then asked for a motion to approve the minutes. Pius Weibel made the motion to approve and Bill Compton seconded it. The minutes were approved by unanimous voice vote.

## Reports and Updates

### Round Robin

**DCEO/OCD** - Dan Wheeler gave an update to the study requested by Bob Mosher (IEPA), looking at zinc, arsenic and selenium. The problem that they are finding with surface water discharges is that a lot of mines operate as a no-discharge system, or of those that do discharge, the outfalls may not be monitored for those constituents. Additionally, the existing data is not being interpreted correctly, due to the manner in which it was entered into the system. For instance, if the level found was less than 0.02, it gets reported as 0.02. This creates the illusion that there was a detect, when there actually wasn't. Taking that into consideration, there are little to no detections. This lack of data will necessitate the migration of this study from studying existing data to collecting new, current data. They are going to focus mainly on mercury.

**IDNR** - There was no update from Vickie Broomhead, but Rick Cobb updated us that the Illinois Supreme Court rejected the Citizens Opposing Pollution suit. This was in relation to the Monterey Coal Company. There was never any contamination off-site, but Monterey went ahead and paid for the neighboring houses to be hooked up to the nearby public new water supply.

**ISGS** - Don Keefer reported that are making progress on the McHenry County 3-D mapping project for aquifer delineation. If anyone is interested in LIDAR data, there is a height modernization program that NOAA runs, and the ISGS is serving as the repository for county LIDAR data. Eventually the data will be downloadable as a GIS layer from the Survey's Website.

**IDPH** - Dave Johnson reported on the Water Well and Pump Installation Contractor's Licensing Code (77 Ill Adm. Code 915). The First Notice is complete and there was one positive comment and one neutral. The changes need to be submitted JCAR for approval. IDPH has new geothermal rules going into effect soon as a result of the new laws. The Geothermal Licensing

Board was put into the Water Well Construction Code and will hopefully be in First Notice by April or May. The goal is to have the new installations of geothermal wells registered sometime by the end of 2012.

### **The “Perc. Bill”**

Paul McNamara reported that in 2011 Senate Bill 1617 was developed by the Statewide Task Force and House Resolution 1174 attempted a structured phase-out of perchloroethylene (perc). It passed the Senate but failed to get out of the Houses Environment and Energy (E&E) Committee. House Bill 4526, without the phase-out, is in Committee right now and has had its first hearing. A second bill, House Bill 4150, the same as last year’s Bill 1617 and without the phase-out, is going through the E&E Committee as of this morning. The IEPA supports 4526 and is neutral is on 4150.

**USGS** - Kelly Warner reported that the USGS now has an Eco-Mapper, which is a continuous monitor submersible. The Eco-Mapper can do profiling of the bottoms of lakes and rivers and can do vertical profiling of temperature in water bodies. It can be seen where other flows enter a water body - such as an interaction between groundwater and the water body. They have a tri-county report coming out on bacteria in surface water in the Peoria area. They are also working on the Valley City gauge and making it into a “super” gauge which continuously monitors specific conductance, turbidity, nitrate, and other parameters. All that information will be online.

## **Guests and Presentations**

### **Regulatory Amendment & IEPA Updates**

Public Water Supply Rules are currently in the process of being updated.

There is a meeting of the East Central Illinois Regional Stakeholders Conference in Urbana on March 29<sup>th</sup>. A flyer was passed around regarding the details of this conference.

Cassandra McKinney sent an update on proposed legislative initiatives and it was passed around. Anyone who wanted a copy was able to obtain one.

### **Update on Regional Water Supply Planning - DNR**

Arlan Jewel and Gary Clark (DNR-OWR) emailed an update on Regional Water Supply Planning. The Kaskaskia Basin Water Supply Planning Committee meeting was on February 7<sup>th</sup>. Vern Knapp of the Illinois State Water Survey presented his research and modeling results, focusing on (from his report):

1. Projected water yield versus demand to 2050 for community surface water supply systems
2. Revised yield assessments for Carlyle Lake and Lake Shelbyville
3. Simulated Carlyle and Shelbyville lake levels for the 3 worst historical droughts

Projected demands and reductions in storage from sedimentation in reservoirs for community systems were also discussed along with a potential contamination risk assessment. Updated yield assessments for Shelbyville and Carlyle are a concern due to the fact that they have had similar drought conditions. Some systems currently listed as “adequate” may become “at-risk” by 2050. Winter draw-down by the Army Corps and low inflow rates, coupled with high water supply usage, during a severe drought could reduce the joint-use water pool to below 50% of its total volume.

Also during the meeting on Feb 7<sup>th</sup>, Ted Beier of the Kaskaskia Watershed Association gave a Powerpoint presentation for recreational water needs using high and low water levels for both Carlyle and Shelbyville. This presentation made recommendations for increasing environmental lake levels one foot and aggressively managing storage and/or flood control releases. Based on these findings, the Kaskaskia Basin Planning Committee plans to begin developing findings, conclusions and recommendations at the super- committee meetings scheduled for the first Tuesdays of April and June, 2012. The draft report will be available in August with a final committee approval in November, 2012. All the meeting agendas, minutes and presentations are on the Website: <http://www.swircd.org/KBWSP.html>

### **Update on Regional Water Supply Planning - ISWS**

An update on regional water supply planning was presented by Walt Kelly. It included recent information on the potential impacts on the Mahomet aquifer and surface reservoirs. Groundwater and surface water scenarios were also discussed. For surface water, four cities were evaluated - Danville, Decatur, Springfield, and Bloomington. It was good news for groundwater and bad news for surface water. Three different scenarios are being evaluated: less resource intensive, baseline, and more resource intensive. There has been questions about the locations of the recharge areas for the Mahomet aquifer. Leaking stream areas with stacked sands have been located that connect to the Mahomet aquifer. These are areas where the recharge is coming from. Observation wells are evaluated, specifically the Sincarte and Petro North sites (with records going back into the 1950's), looking at the available heads. Champaign- Urbana utilizes mainly the Mahomet aquifer and it is the greatest area of concern. Historic drawdowns in the Champaign region are also discussed and evaluated from east to west, including future projections. There is a growing cone of depression around the Champaign-Urbana area. However, none of the current groundwater users in the Mahomet aquifer could be considered at risk for future water shortage under the three demand scenarios.

The Mahomet aquifer actually holds more water than what it had initially been projected to hold. This is because the recharge comes from Sangamon River during the flood stages and sand bodies in the Rantoul area. The model also indicates that the available 2050 water supply for the aquifer as a whole is 2.3 times greater than the projected baseline demand, which is a good thing for groundwater. However, if too many wells are placed on the edge of the valley close to Champaign-Urbana, they will de-water the aquifer locally (as it is thinner there), so the water company has been interested in placing wells near the center of the valley. Areas of potential impacts for high-potential well fields were evaluated based on limited, potential, and significant impacts.

Northeastern Illinois water supply final report is with the ISWS editor. Publication is expected in March, 2012. The main focus is Lake Michigan and Fox River, with special attention to shallow groundwater in the Fox River Basin.

Following are two maps from the report.

# Study Area

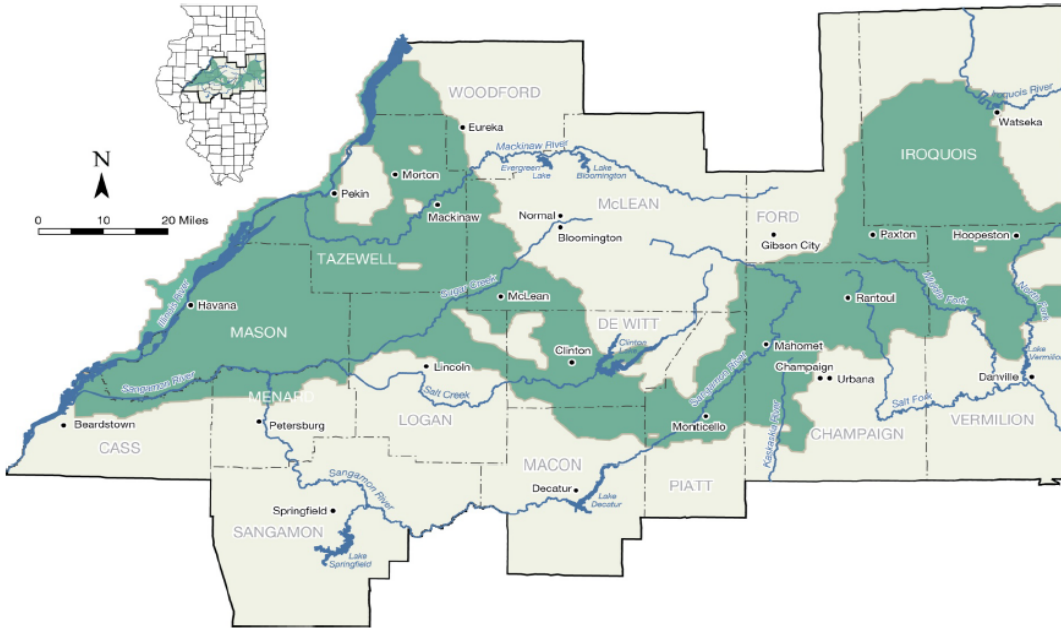


Figure 1. East-central Illinois regional water supply planning area

# Available Head

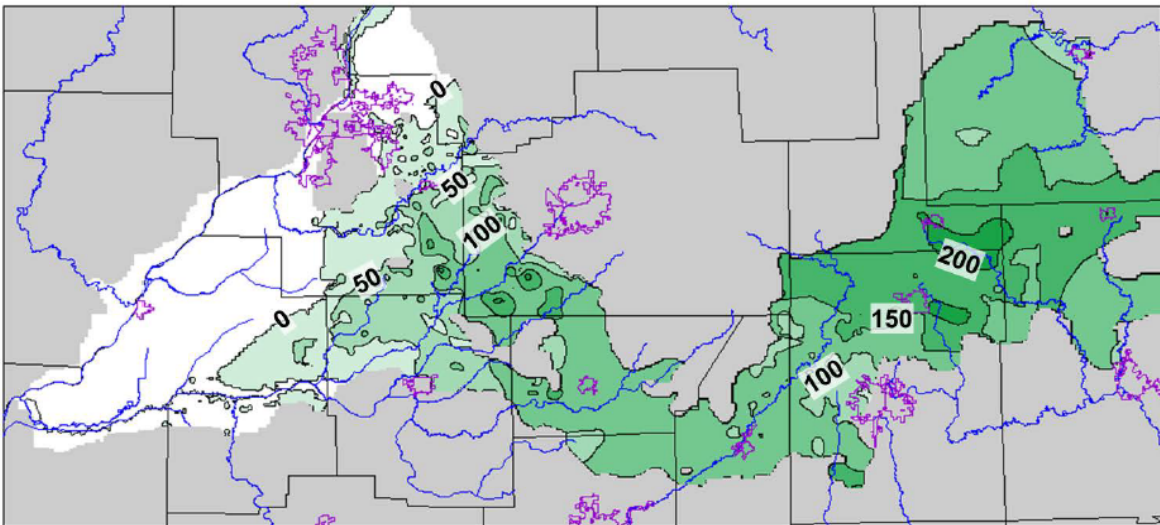


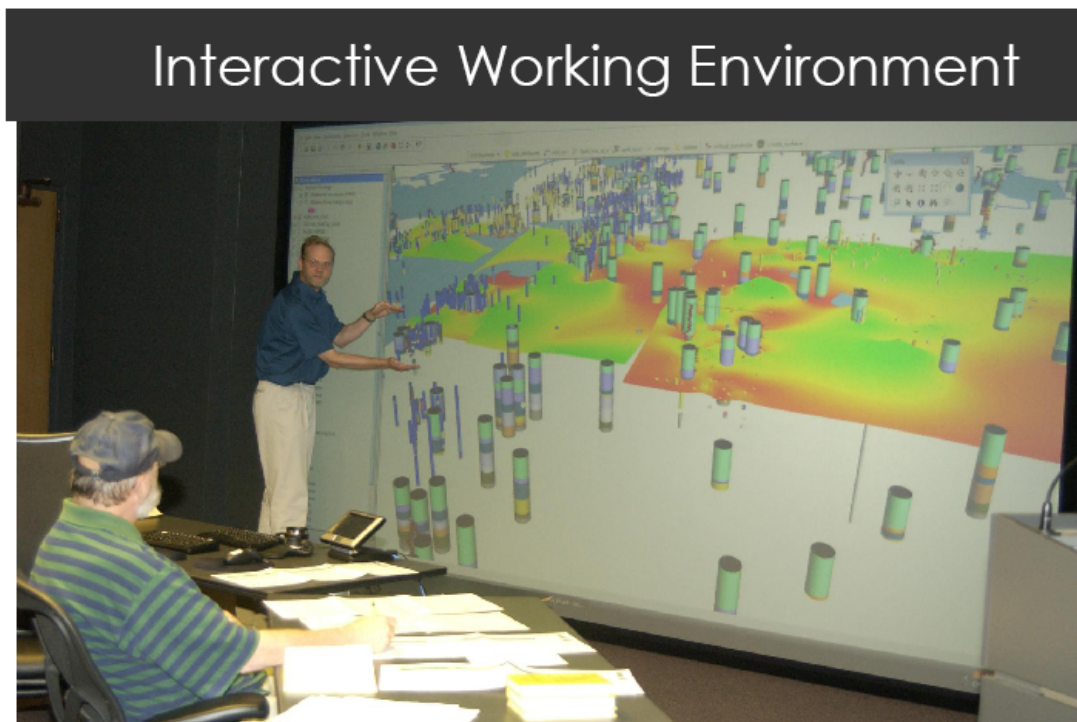
Figure 19. Height of the potentiometric surface of the Mahomet Aquifer above the top of the Mahomet sands. Unconfined areas are not shaded.

## ISGS 3-D Visualization Lab

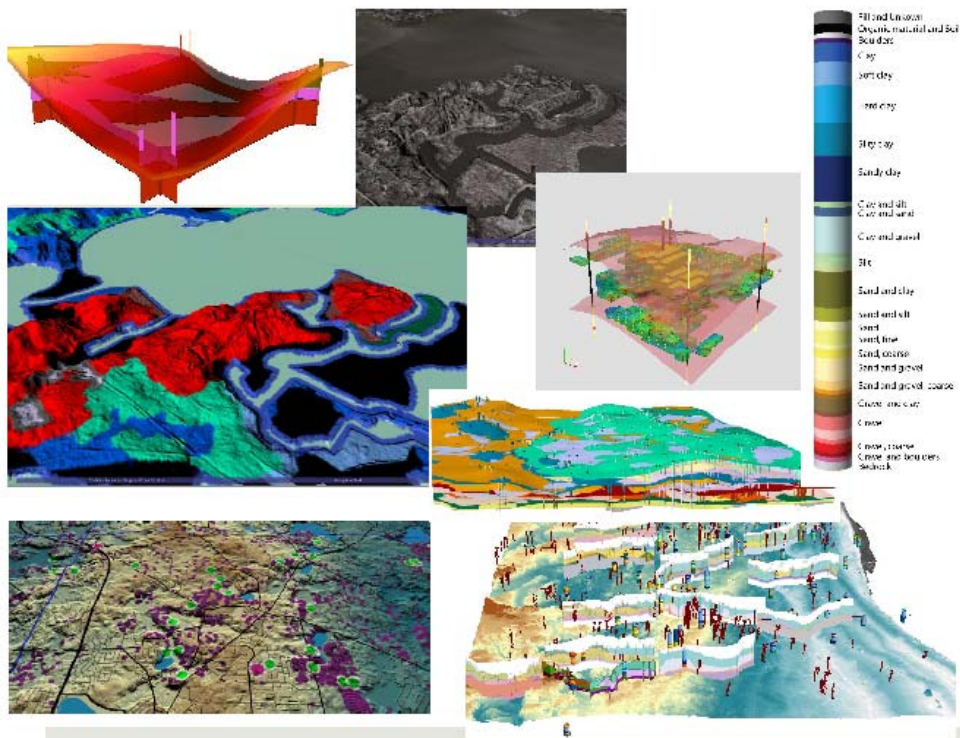
The ISGS has been working for a long time evolving its technology to work towards three-dimensional mapping. A Powerpoint presentation by Don Keefer introduced the Earth Systems

Visualization Laboratory. The lab has an emphasis on advanced imaging analysis tools targeted to earth science and research. This laboratory is a 3-D visualization resource located at the University of Illinois at Champaign-Urbana. Objectives of the visualization lab include the following: collecting more advanced technology for visualization and imaging for analysis of scientific data and developing expertise. A 3-D room was remodeled for workspace with a large screen for a collaborative effort. It has proven to be very useful for mapping projects and meetings for technology demonstrations. It has been the focal point for the development of new tools for research and techniques. The screen is large enough to support visionary applications with high resolution, large data sets, ortho-imagery, and LIDAR and can be supported through the use of applications with this technology. Several other software options were also discussed including: GeoVisionary, Arc GIS, GSI-3D, Para View etc. Unsuccessful options were also evaluated. Databases are also discussed with collection techniques and raw data analysis with mapping and 3D shapefiles. Arc Map doesn't perform with LIDAR data very well, but it has been phenomenal for digital display of landscape. GSI-3D is a java-based program that has worked well. The problem is that java and LIDAR data are incompatible. Visualization for oil and gas reservoirs was also discussed to develop a tool for geologic models and flow. The focus was not really on building their own software packages, but taking off-the-shelf applications and maximizing the use for earth science and geologic applications. Although this state-of-the-art visual laboratory is ideal for research, the downside includes the fact that there are not enough staff members to facilitate daily operations.

## ISGS Visualization Lab



## Composite slide of various applications



### ISAWWA Source Water Training

Anthony Dulka updated the ICCG on the Illinois Section American Water Works Association (ISAWWA) Source Water Training. Robin Doescher is Chair of the ISAWWA Source Water Protection Committee and is on the Northern Regional Planning Committee. The IEPA Regional Planning Committee, along with ISAWWA, are interested in performing more outreach initiatives for public education to promote source water protection. A key project that is currently underway includes a webinar that focuses on ISAWWA Source Water Protection Standards; G300. The original standard came out in 2007 and the guidebook was published in 2010. The webinars are separated into two parts and discuss the G300 Source Water Protection Standard. The first webinar is scheduled for April 18<sup>th</sup> from 12 noon-1 p.m. central time. This session deals with understanding potential elements and the presenters include authors and work group members. It is free for AWWA members and \$25 to non-members. The second portion of the webinar is on Wednesday April 25<sup>th</sup> and it will specifically deal with source water protection through various case studies and will discuss pro's and con's of the central elements of plans including self-evaluations.

The Illinois Groundwater Protection Program assessment was briefly discussed with special attention given to the strategic goals and self-assessment. Anthony also passed out the executive summary of the Biennial Report. This is the first year that the full version will not be printed - it will be available only on the IEPA Website. The URL is on the inside front cover of the summary. The cover features the McHenry County Real-Time Water Quality Data Collection map that Kelly Warner developed. Rick stated that the other key point is the work plan which is

on pages 20 and 21. These recommendations are the strategic goals for the next two years, at which time we will self-assess how we performed.

### **Proposed Chromium-6 Monitoring Initiative**

Rick Cobb talked about the Drinking water standard goals for Chromium-6 established in California. Misleading reports published by the Environmental Work Group (EWG) were evaluated and the findings suggested that the state had actually set a new health-based goal of 0.02 micrograms per liter. The reports however led one to believe that this was a standard. Currently, the USEPA is working on a health advisory that has been criticized by several members of the scientific community regarding the mode of action in which the initial health assessment was conducted. This report doesn't appear to be anywhere near complete, however the IEPA has decided to move forward by conducting an assessment relative to data available for surface and groundwater. The City of Chicago utilized the laboratory in California used by EWG. Chicago sampled their own intakes, including the treatment and distribution system, and discovered .02 micrograms per liter in the treatment, distribution, and source water.

In response to the Environmental Working Group's recent report on the presence of chromium-6 in drinking water, U.S. EPA has worked with state and local officials to better determine how wide-spread and prevalent this contaminant is. The Illinois Environmental Protection Agency responded with the development of a Chromium-6 Strategic Plan that indicates when U.S. EPA finishes their guidance and approved sample method for chromium-6, it will be used to develop a network to scientifically assess the prevalence of chromium-6 in source water (surface and groundwater), drinking water, and public water supply distribution systems. This information will help to prioritize U.S. EPA's technical assistance and guidance. Moreover, it will also assist U.S. EPA with the question of prevalence and need to establish a drinking water standard. <http://www.epa.state.il.us/water/compliance/drinking-water/chromium.html>

The Illinois Environmental Protection Agency (Illinois EPA) is working with the U.S. Geological Survey (USGS) to use a statistical scientific approach to randomly select a network of wells and intakes from public water systems throughout the state, and finished water near the point of treatment and further along the distribution system pathway.

In this initial assessment, concentration distribution by source-water type and location will be summarized and evaluated with respect to various quality assurance considerations. Results will be presented in a short web-based USGS Fact Sheet or other USGS interpretive report, depending on the nature of the results.

### **Other Business**

Rick Cobb reported that the IEPA should have an update on the Ash Impoundment Strategy available on the website soon. The IEPA has nearly completed an evaluation of the facilities that have inactive impoundments and are now are dealing with systems that have impoundments that are part of the "treatment train." This evaluation has determined the facilities that have groundwater contamination issues associated with their impoundments. However, some facilities are still assessing their impoundments, while other sites are investigating the extent of groundwater contamination. There are two types of closure under the USEPA proposed in their regulations: clean closure and close-in-place and cap.

Rick Cobb asked for any questions or additional comments. Hearing none, the meeting ended at noon. The GAC meeting will commence after a break.



**GROUNDWATER ADVISORY COUNCIL (GAC)  
MEETING MINUTES**

February 23, 2012

The meeting was called to order by Bill Compton, shortly after noon at the Illinois Environmental Protection Agency's Mississippi River Conference Room. The following were in attendance:

|                |   |
|----------------|---|
| Jack Norman    | Kaskaskia group of the Sierra Club              |
| C. Pius Weibel | ISGS/ University of Illinois                    |
| Bob Kohlhasse  | Farnsworth Group                                |
| Paul McNamara  | Southwest IL Metropolitan and Regional Planning |
| Bill Compton   | Groveland Township Water Department             |
| George Czapar  | ISWS/University of Illinois                     |

Additional attendees:

|                |                              |
|----------------|------------------------------|
| Dan Wheeler    | DCEO-OCD                     |
| C. Pius Weibel | ISGS/ University of Illinois |
| Rick Cobb      | IEPA/ Groundwater Section    |
| Anthony Dulka  | IEPA/ Groundwater Section    |
| Ed Wagner      | IEPA/ Groundwater Section    |

John Liberg, IAGP/GAC, was not in attendance.

**Opening Remarks**

Bill Compton opened the meeting. There are two items on the agenda, and he would like to add an opportunity to add other items of business.

First, Bill reminded everyone that they need to submit the Ethics forms. Jack Norman inquired as to whether the members need to submit timesheets. Rick Cobb replied that it is not required. In related business, Rick reminded everyone that they need to go to the Appointment Website and re-nominate yourself. It has to be done every three years. Anthony Dulka distributed copies of the website page with the information on how to nominate.

Rick opened the floor to discuss the proposal for the draft source water planning rules. We have made some significant progress in the voluntary programs. We are now at a phase in which it needs to be a required program. Under the proposed rules, each system would have to develop a wellhead protection program. As steps towards that goal, the Source Water Assessments are currently being updated by Groundwater Section staff, taking into account GW Rule data and right-to-know evaluations.

Rick went through the different sections of the draft amendments to the public water supply rules, which was presented to the group at the November 10<sup>th</sup>, 2011 meeting. Rick stressed that the action plan must be realistic and measurable. What works for one system may be a complete failure when implemented at another system. There will be a phase-in period which will be based on the size of the system, with the thought that smaller systems have fewer resources and will need more technical assistance.

Bill had a question, stating that the plan was built around the AWWA G-300 standard. Bill stated that his experience has been that people do not go directly to the standard but rather go to the explanation of the standard. The problem with this is that they over-commit. Then when it is analyzed, it does not appear that the program has been successful.

Bill Compton had a question on the assessments. Using an example, he questioned how systems are able to get more involved in the assessment process. Rick let everyone know that the systems are more than welcome to have input into them at any point. We are asking for input when we send out draft source water assessments,

Bill asked for a timeframe for the package, and Rick stated that we could have a package together within a couple weeks, so that the GAC members could look it over before the April 26<sup>th</sup> meeting.

Rick asked the Committee if anyone has any ideas on a strategy on how to better communicate with the environmental groups. The Committee would like to open clear lines of communication with involved groups, in hopes that future decisions and reports are inclusive of the science behind the environmental policies and decisions.