



Technical Advisory Committee Zoom Meeting

February 27, 2024

Meeting Minutes

Present: Jeff Freeman, MWCOG/EEI; Natalie Karney, Retired Village of South Barrington/BACOG; Tony Speciale, Retired Village of Sugar Grove/Sugar Grove Township Water Authority; Jerry Elliott, Retired Sugar Grove Water Township Authority; Gary Clark, Retired IEPA; Derek Hiland, DeKalb County; Margaret Schneemann, IISG; Scott Kuykendall, McHenry County; Jeff Babich, Sugar Grove Township Water Authority; Devin Mannix, ISWS; Judith Thomas, Walt Kelly, ISWS; Wei Han, IDNR; Amy Gahala, USGS; KT Hulseley, USGS; Daniel Hadley, ISWS; Wes Cattoor, IDNR; Eddie Ramos, City of West Chicago; Joe Munder, City of Aurora; Kelsey Pudlock, CMAP; Dean Farr, Illinois Division of the Izaak Walton League; Jodie Wollnik, Kane County Water Resources; Kali Spain, ISAWWA; Katie Piotrowska, CMAP; Cecilia Cullen, ISWS; Angie Smith, EEI.

Jeff Freeman called the meeting to order at 10:01 A.M.

Agenda Changes and Announcements: Nothing at this time.

Approval of January Meeting Minutes: Scott (McHenry County) made a motion to approve. Joe (Aurora) seconded. Minutes approved.

Presentation: "NWPA Water Supply Sustainability Plan: Water loss control strategy": Kelsey (CMAP) presented this topic to the group. The strategy description is: *Communities find, measure, and address water losses within their water supply systems to conserve available water supply.* Several implementation approaches were covered which included: technical assistance/partnerships; rebate programs; capital improvement planning and budget and ordinances. In their research, there are a few communities within the NWPA region that are addressing water loss and are trying to meet the Lake Michigan water requirement. Three NWPA region case studies were introduced to the group – the City of Elgin, the Village of Montgomery, and the United City of Yorkville.

Margaret (IISG) presented the Water savings estimates using the Water 2050 water demands with an updated formula (assuming water loss (non-revenue water) 14% - 20%) resulting in a water savings range of 8.85 MGD – 12.65 MGD.

Discussion: Are the water savings estimate assumptions still valid? The group believes that this is still a good assumption. Are there other communities in the NWPA region that are addressing water loss? What measures are they taking? Jodie (Kane County) commented on the funding that they received from ARPA and that they are hoping to have Kane County communities take a look at their water loss with funds from the County's grant program.



Presentation: “Next Generation Water Observing System (NGWOS) Illinois River Basin (IRB) Geophysics and Airborne Electromagnetic (AEM) Survey”: Katie “KT” (USGS) presented on this topic. She reported on the geophysical data and AEM collection process. The data collected can help inform the depth to bedrock and structural interpretation, subsurface characterization of lithology, groundwater salinity and regional observations. The NGWOS integrates into the Integrated Water Availability Assessment (IWAA) groundwater modeling program. The Illinois River Basin data is scheduled to be published soon. USGS also utilized the technology to evaluate groundwater within the Kankakee River Basin. In 2023, a regional AEM survey was completed for the Mahomet Aquifer.

The AEM interpretation objectives are to: establish the top bedrock elevation, delineate bedrock intervals and identify quaternary features. The interpretations support Illinois State Water Survey (ISWS) and IWAA groundwater modeling efforts. The NGWOS studies provide subsurface characterization and facilitate collaboration by ISWS, Illinois State Geological Survey (ISGS), IWAA modelers, Indiana Geological and Water Survey, and Ohio-Kentucky-Indiana Water Science Center.

KT shared an AEM interpretation for the Sandwich Fault Zone (SFZ). A couple lines were interpreted to evaluate the structural offsets and dip changes. She noted ISWS is working closely with USGS on this effort.

Scott (McHenry) asked if there has been any work done on the McHenry County mapping that has been completed. The AEM couldn’t fly and pick up good information in urbanized areas. There is a strong interest in expanding into Boone and Winnebago Counties due to their more rural land use. It was noted that a far denser AEM survey was flown for the Fox River Basin in Wisconsin. ISWS is working on compiling all the information into their models so that there is one model to use.

Presentation: “Recent trends in Sugar Grove Township’s groundwater informed by 5 years of water level monitoring and 3 years of water quality sampling”: Cecilia (ISWS) presented the information on the completed reports. Dan H. (ISWS) noted that they have been working with Sugar Grove Township for several years reviewing water level data from monitoring wells and reviewing the water quality in the shallow aquifer. The Village of Sugar Grove switched predominately to the deep sandstone aquifer in the early 2000s. However, the shallow aquifer is still being utilized by private homeowners and other entities.

Water level trends at the various wells monitored varied with some decreasing and some remaining fairly consistent throughout the 2018 – 2023 monitoring period. ISWS believes that the decreasing trend at two-thirds of the monitored wells is because the start of the monitoring period coincided with two wet water years (2018 and 2019), whereas water years 2021, 2022, and 2023 have been drier and less water has recharged to the aquifer.

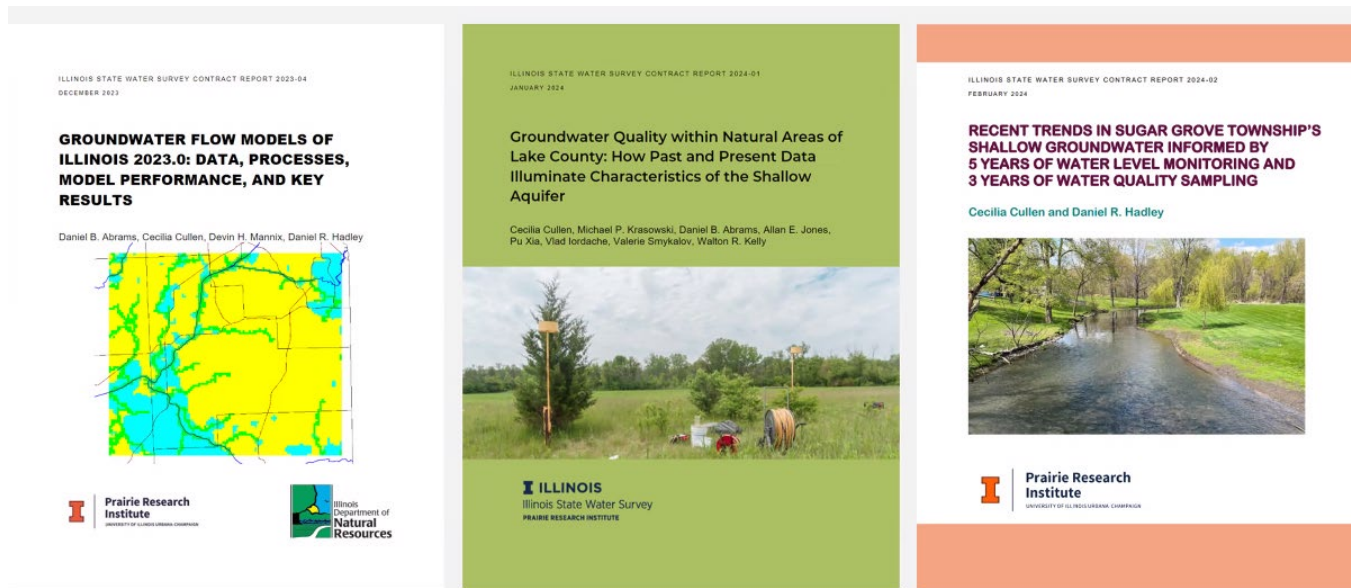
A total of 17 wells were sampled throughout the Township in 2022 and 2023 and water quality parameters were measured. There was only one well that had an exceedance above a primary water quality standard. That well,

which is located in the northwest part of the township, exceeded the arsenic primary water quality standard. A recently completed (Fall 2023) Kane County study also observed a higher level of arsenic in the same area.

Measured chloride levels were the highest in the urbanized areas of Sugar Grove Township. The ratios indicate that the source of chloride is winter deicers. The chloride levels in the Village's Wells No. 5 and 7 have increased in the past 50 years.

Based on the results of the study, ISWS concluded the following: groundwater in the shallow aquifer is responsive to pumping, creek stage levels and climate; because the last few years have been drier, water levels are decreasing at some wells; groundwater in Sugar Grove is largely of good drinking water quality, although high arsenic was observed at one well in the northwest township; chloride is increasing in the shallow aquifer; salt reduction efforts could prevent chloride accumulating past the USEPA Secondary Standard (250 mg/L).

ISWS also took the opportunity to highlight other studies that have been released:



The reports can be found at the following links:

Lake County: <https://hdl.handle.net/2142/121887>

Model update: <https://hdl.handle.net/2142/121782>

Sugar Grove: <https://hdl.handle.net/2142/121903>



Sensible Salting Committee (SSC) (Update): Scott (McHenry County) reported on the four-pronged approach with the Committee. 1. Develop a regional manual, 2. Training and certification program, 3. Work with municipalities to develop ordinances, 4. State legislation. Steps 1 and 2 are completed. Starting on Step 3 now.

Scott stated Wisconsin is implementing a Salt Wise program. The program facilitators will be approaching the Wisconsin State Legislature to request legislation that addresses deicing liability concerns. If Wisconsin is able to address the issues, Illinois could benefit by following a similar approach.

CMAP (Update): Kelsey (CMAP) reported there are no major updates at this time.

IISG (Update): Margaret (IISG) no major updates at this time.

ISAWWA (Update): Kali (ISAWWA) gave an update on some training sessions coming up. She recommended all utilities become a member of the Water Utility Council (WUC). There will be a WUC meeting at WATERCON on April 16th.

ISWS (Update): Due to his imminent retirement, Walt (ISWS) stated this will be his last official TAC meeting.

Dan Hadley reported that he is continuing to work through the Kane County water quality results. He currently is in the data-gathering phase for the shallow groundwater users.

IDNR (Update): Wes stated they are starting to work with CMAP on a future contract. He also directed the group to a two-page summary of the State Water Plan.

https://dnr.illinois.gov/content/dam/soi/en/web/dnr/waterresources/statewaterplantaskforce/documents/swptf_statewaterplaninfosheet.pdf

USGS (Update): Judith noted nothing at this time. Amy stated she will be presenting her statewide water system PFAS analysis work at the Illinois Lakes Management Association next Wednesday in Champaign.

SGTWA (Update): Tony stated they will be continuing the groundwater level monitoring and will be participating with Kane County in their study.

Other Business:

Jeff (EEI) reported that the new regulations that increase state revolving fund (SRF) loan terms from 20 to 30 years are now in effect.

Scott (McHenry) commented on the upcoming MS4 permit changes that are targeted to start in March. He expressed his concern with the number of surveys that will need to be completed – from annually to quarterly. Budgets and staffing are going to be heavily impacted by these changes.

The next meeting will be held on March 26, 2024, via Zoom.

The meeting was adjourned at 11:58 AM.



Submitted by _____ Angie Smith, EEI