

**WRAP JUNE 12, 2019 MEETING**  
**SPEAKER BIOGRAPHIES AND PRESENTATION SUMMARIES**



**Amy Gahala**

Amy Gahala is a hydrologist who has worked for the U.S. Geological Survey (USGS) since 2011. Amy's research focuses on contaminant hydrogeology, water quality, and groundwater resource assessment and availability. She also serves as a hydrologic technical advisor to the U.S. Environmental Protection Agency. Amy is the Project Manager for the network of groundwater monitoring wells and stream gauges established throughout McHenry County and was the principle scientist for the county's study of groundwater quality that was conducted in 2010. She received her B.S. degree in Geology and Environmental Geoscience and M.S. degree in Geology from Northern Illinois University.

**Presentation Summary**

***Monitoring Groundwater Quantity and Quality in McHenry County***

The USGS has installed a network of groundwater monitoring wells across McHenry County along with several gauges in rivers and streams. Since 2007 these USGS monitoring devices have been collecting data that can be used for water resources planning, land-use planning, and water quality monitoring. In 2010 the USGS conducted a countywide water quality study. The study included analysis for a broad spectrum of potential contaminants and established a baseline of water quality that future studies can compare with to identify changes over time. Amy will provide an overview of the well monitoring network and water quality study, explain how this important data can be used by municipalities and others for planning purposes, and discuss the next steps that should be taken to protect water resources.



**Robert Kay**

Robert Kay is a hydrologist with the Central Midwest Water Science Center, located in DeKalb, IL. Bob has performed numerous investigations characterizing the hydrogeology and water quality in the mid-west with an additional focus on hazardous-waste disposal sites. He has also studied lake and wetland ecology, the availability of water in suburban residential-supply aquifers, and the effects of urbanization on soil and water quality.

**Presentation Summary**

***Study of Water Use in McHenry and Nunda Townships***

The USGS conducted an intensive investigation of water use in McHenry and Nunda Townships that has provided detailed estimates of the amount of groundwater pumped from each of the major water-supply aquifers in the Townships--Glacial Drift, Shallow Bedrock, and Cambrian-Ordovician Aquifer System. The investigation indicates about 4.3 million gallons per day (MGD) is pumped from the Glacial Drift in the area. More than 1.9 MGD is pumped from the Shallow Bedrock, and about 0.15 MGD is pumped from the Cambrian-Ordovician. Pumping is highest in industrial areas, urban areas supplied by municipal systems, and residential areas served by private wells near lakes and the Fox River.



**Nora Beck**

**Nora Beck, Chicago Metropolitan Agency for Planning**

As a Senior Planner at CMAP, Nora has helped to shape a regional vision for water resources in the next regional comprehensive plan, ON TO 2050. She manages a variety of projects that incorporate sustainability, stormwater management, and water supply planning in local plans and regional analyses. Nora received her Bachelor's degree in Zoology and Environmental Studies from the University of Wisconsin - Madison and Master's degree in Urban Planning from the University of Michigan.

**Presentation Summary**

***Changing water demand: Projecting water use in the Chicago region to 2050***

The Chicago Metropolitan Agency for Planning recently updated the regional water demand forecast to allow the region and municipalities to assess long-range demands in the context of available water supply. Nora Beck will present the forecast results, identify important factors driving water demand, and highlight available data resources for local use.



**Sarah Zack**

Sarah Zack is the Pollution Prevention Extension Specialist with Illinois-Indiana Sea Grant (IISG) and University of Illinois Extension. She develops and conducts extension and outreach activities related to the prevention of aquatic pollution, raising awareness of the impacts of pharmaceuticals and personal care products, microplastics, and other contaminants of emerging concern on water quality, human health, and aquatic ecosystems. She also assists communities in developing unwanted medicine take-back programs and leads the Sea Grant National Emerging Contaminants Community of Practice. Sarah has a dual B.S. in zoology and biological conservation from the University of Wisconsin-Madison and an M.S. in biology from Loyola University Chicago.

**Presentation Summary**

***Contaminants of Emerging Concern***

Contaminants of emerging concern (CECs) are chemicals and other materials that have been found in the environment, but whose risk to both aquatic life and people is not fully understood or regulated. CECs (e.g., pharmaceuticals and personal care products, flame retardants, microplastics, PFAS) are increasingly causing concern due to their presence in both municipal water supplies and natural waters. This talk will provide an overview of the most common CECs, their impacts, and sources.