Wisconsin Groundwater Coordinating Council (GCC) Meeting Minutes

Date: August 15th, 2025
Time: 10:00 AM – 12:00 PM
Location: *Food + Farm Exploration Center, 3400 Innovation Drive, Plover, WI 54467*, WI 53705 and via Zoom

1. Meeting Opening and Approval of Previous Minutes

- **GCC Members Present:** Joe Van Rossum - Council Chair (DNR), Brad Johnson (DSPS), Sue Swanson (WGNHS), Mark McColloch for Robby Personette (DATCP), Sarah Yang (DHS), Jen Hauxwell for Christy Remucal (UWS) and Steve Dierks (Governor's Representative)
- The meeting was called to order by Chair Joe Van Rossum (DNR), who welcomed members and led introductions around the room and online. Representatives from DNR, DATCP, DHS, UW System, and other partner agencies participated. The agenda was reviewed with no changes proposed.
- Minutes from the May 9, 2025 meeting were approved with a minor correction noted by UW System regarding the year of a funding competition. The correction was accepted, and the minutes were approved unanimously.

2. FY 2027 Joint Solicitation RFP update, Jen Hauxwell (UW System)

Jen Hauxwell provided an update on the FY 2027 Joint Solicitation Request for Proposals, which was released on May 20, 2025—one month earlier than usual. The solicitation was distributed to more than 1,100 researchers and administrators across the state to encourage broad participation.

The total available funding for FY 2027 is about half a million dollars, with up to $320,000 contributed by DNR and $180,000 by the UW System. Proposals are due **October 3, 2025**, earlier than in past years to better align with academic calendars and graduate student recruitment timelines.

An informational webinar for potential applicants is scheduled for **September 5, 2025**, co-led by UW and DNR staff. Peer review will take place through early December, followed by review by the GCC Research and Monitoring Subcommittee and the Groundwater Research Advisory Council (GRAC). Funding decisions are expected in mid-January, with award notifications sent to principal investigators in February.

The group briefly discussed whether to move the February GCC meeting to align with the GRAC review timeline in January. Members agreed to maintain the existing February schedule.

3. 2025 Annual GCC Report to the Legislature – Steve Elmore (DNR)

Steve Elmore presented the final draft of the 2025 Annual GCC Report to the Legislature, which had been shared with members prior to the meeting. Aside from a few technical issues with SharePoint access for some agencies, the process was completed smoothly.

Members offered their thanks to Robin Wagner, who coordinated the report's content and design. The report was praised for its new web-based format, which improves public access and readability compared to previous lengthy PDF versions.

A motion to approve the report as final was made and seconded, passing unanimously. The report will be finalized, formatted both as a PDF and on the GCC website, and submitted to the Legislature by the August 31 deadline.

4. Technical Presentation: New printed electrochemical sensors for real-time monitoring nitrate dynamics in soil and groundwater - Dr. Jingyi Huang and Kuan-Yu Chen (UW–Madison)

The presentation focused on newly developed printed electrochemical sensors designed to monitor nitrate dynamics in soil and groundwater. The sensors measure nitrate, moisture, and temperature simultaneously and can provide continuous, real-time data.

Field trials in Wisconsin have demonstrated that the sensors can detect nitrate fluctuations following fertilizer applications and changing soil moisture conditions. Ongoing work is focused on improving sensor power supply and adapting the technology for groundwater monitoring.

During discussion, members noted the potential benefits of this low-cost system for farmers and private well owners. Suggestions were made to explore applications for household monitoring and to compare results more directly with conventional soil nitrate tests. Dr. Huang and his team welcomed further collaboration and field deployment opportunities.

5. Technical Presentation: Comparing Methods for Quantifying Nitrate Loss to Groundwater - Dr. Kevin Masarik (UW–Stevens Point)

The presentation focused on various approaches for measuring nitrate loss in agricultural settings, focusing on the challenges of data variability in Wisconsin's Central Sands region. He emphasized that both climatic fluctuations and soil heterogeneity make it difficult to precisely quantify how management practices affect groundwater nitrate concentrations.

Dr. Masarik reviewed several existing technologies, such as lysimeters, suction samplers, and modeling approaches, highlighting their relative strengths, limitations, and costs. He underscored that no single method captures the full picture, and that integrated approaches across spatial and temporal scales are necessary to better understand nitrate leaching.

He also noted that advances like Dr. Huang's new sensor technology could complement traditional monitoring tools by improving data resolution and helping farmers make real-time management decisions.

6. Agency updates

University of Wisconsin System (UWS) – Jen Hauxwell

Jen Hauxwell provided the University of Wisconsin System's update on behalf of the Water Resources Institute (WRI) within the Aquatic Sciences Center. She began by acknowledging the collaboration between the state agencies and the university in advancing applied groundwater research through the Groundwater Coordinating Council and the Joint Solicitation process.

She reported that the WRI continues to serve as Wisconsin's official liaison to the U.S. Geological Survey (USGS) under the National Water Resources Research Institute program, which provides both a federal base grant and competitive funding opportunities. The USGS–UW partnership funds core research on groundwater quality, quantity, and management, with state matching support through the university and GCC agencies.

Jen explained that Wisconsin investigators have remained highly successful in obtaining USGS national competitive grants, often using them to expand on projects initially funded by the state's joint solicitation. These federal awards have supported work on nitrate dynamics, PFAS contamination, groundwater recharge, and agricultural water-use efficiency. In addition, WRI and USGS continue to support student fellowships and early-career investigator projects, strengthening Wisconsin's groundwater research capacity.

She then noted a significant development: USGS reduced its national Water Resources Research Institute program funding by 20 percent for the current federal fiscal year. This reduction affects all state institutes, including Wisconsin's, resulting in smaller base awards and less funding available for state match and outreach activities. Jen said that, despite this cut, the UW Water Resources Institute remains committed to maintaining its core programs, but the reduction will limit the number of new projects and the overall capacity for outreach and student support in FY 2026–27.

In response, her team is working to leverage additional partnerships and diversify funding sources, including pursuing more competitive national awards and collaborations with DNR, DATCP, and DHS to sustain Wisconsin's groundwater research portfolio.

She also mentioned that the WRI is upgrading its online project database to improve access to research results, data, and publications so that agencies, legislators, and the public can better track outcomes of funded studies.

Jen closed by thanking agency partners for their continued participation in the proposal review process and for helping to shape research priorities that address real-world groundwater management needs. Despite the federal funding reduction, she emphasized that Wisconsin's integrated approach, linking state agencies, researchers, and USGS, continues to be a national model for effective groundwater research coordination..

Wisconsin Department of Health Services – Sarah Yang

Sarah Yang provided the Department of Health Services (DHS) update, focusing on groundwater and drinking-water health issues. She began by noting staff transitions within the DHS

environmental health division: the department's chief medical officer, who had previously represented DHS on the GCC, had recently left for another position, and Sarah is now serving as the department's primary GCC representative.

DHS is onboarding Jordan Murray into groundwater work; Jordan is being brought up to speed on groundwater standards, the many phone calls DHS gets about private-well issues, and the department's partnerships with local sites and counties.

Sarah reported DHS had an LTE epidemiologist (a limited-term/temporary epidemiologist) helping over the summer to manage and track reportable conditions—this was to cover a busy season for staff so the state can keep up with required reporting.

Jordan Murray reported that since DHS is not currently developing new groundwater or drinking water standards, her team is taking advantage of this period to focus on planning educational events and creating outreach materials tailored to the needs of their partners.

She shared that DHS is collaborating with UW–Extension and the Wisconsin Geological and Natural History Survey (WGNHS) to organize a Brown Water Hydrogeology Workshop for county conservation and public health staff, scheduled for January 2026. The event will cover topics such as communicating health risks and treatment options for private well owners and providing updates on emerging groundwater quality concerns.

Jordan also described how DHS's Environmental Health Behavior unit has been hosting online Q&A sessions for local health departments, addressing topics like radon, mold, and water quality issues. The team is considering adding a groundwater-focused Q&A session, possibly in partnership with other state agencies, if there is sufficient interest from local partners.

In addition, DHS plans to restart email newsletters to local health departments featuring updates on environmental health topics, including groundwater, with the goal of launching these efforts around National Groundwater Week in March. Her team also hopes to create educational resources for tribal nations and private landowners to strengthen outreach on groundwater health protection and access to safe water information.

To better coordinate these kinds of communication and education projects, Jordan proposed forming a GCC Outreach and Education Subcommittee. The subcommittee would enable agencies to collaborate on shared projects such as fact sheets, public resources, and workshops. She emphasized that cross-agency collaboration increases credibility, consistency, and visibility of groundwater education efforts.

Jordan closed by inviting any interested GCC members or agency partners to contact her if they would like to participate or share outreach ideas.

Department of Agriculture, Trade and Consumer Protection (DATCP) – Marc McColloch

Mark McColloch reported that DATCP staff continue their regular monthly surface water sampling in coordination with the Department of Natural Resources (DNR). The two agencies are working together on shared sites, and data from these efforts will be summarized in the 2024

Annual Surface Water Monitoring Report, which will be published on DATCP's website once finalized.

He added that DATCP is also conducting private well sampling as part of its Targeted Sampling Program, with a goal of collecting around 100 samples this season. The team has completed fieldwork in south-central Wisconsin and is now moving operations to western Wisconsin. This year's sampling is being done in partnership with the Department of Health Services (DHS) Biomonitoring Study, allowing the two agencies to link water-quality data with human exposure information — a collaboration he described as especially valuable.

Mark also announced that a report summarizing the Atrazine Prohibition Area evaluation and its impacts on groundwater quality will be released soon, likely within a week. Preliminary findings from that evaluation were shared with the GCC during the February meeting, and the finalized report will be posted publicly on the DATCP website.

He then provided updates on two funding programs:

- The Nitrogen Optimization Pilot Program (NOPP) has received $1 million in the FY 2026 budget, with applications opening in October 2025. The next round will include new funding tiers, where maximum award amounts will depend on the type of project proposed.
- The Producer-Led Watershed Protection Grant Program will maintain its current $1 million annual funding level in the 2025–27 biennial budget, with the application period for 2026 projects open through September 12, 2025.

Mark concluded by expressing appreciation for the collaboration among state agencies on nutrient management and groundwater protection, noting that DATCP's field and research partnerships continue to generate strong data and support farmer-led innovation.

Governor's Representative – Steve Dierks

Tamas Houlihan, Executive Director of the Wisconsin Potato and Vegetable Growers Association (WPVGA) provided an update on Association groundwater related activities. Tamas explained that the WPVGA Water Task Force continues to maintain a network of about 32 groundwater-monitoring wells that were originally installed through the Wisconsin Initiative for Sustainable Agriculture in the Central Sands region. These wells were used for long-term tracking of water-table trends and irrigation impacts.

When the Central Sands Lake Study began around 2018, the DNR assumed responsibility for eight of those wells located near Pleasant Lake, Long Lake, and Plainfield Lake, outfitting them with automated transducers and data loggers. That lake study has now concluded and the report was submitted to the Legislature several years ago. Recently, the USGS and DNR informed WPVGA that they no longer have funding to continue maintaining those wells.

Rather than abandoning them, the WPVGA Water Task Force decided to take over monitoring responsibilities to keep the network running. The group is currently reviewing the equipment

needs and costs for replacing or maintaining the transducers and data loggers so data collection can continue uninterrupted.

Beyond monitoring, Tamas highlighted WPVGA's broader research and conservation involvement. Member farms are active participants in both the Producer-Led Watershed Protection Grant Program and the Nitrogen Optimization Pilot Program, implementing on-farm trials to improve fertilizer efficiency and protect groundwater. The association also funds University of Wisconsin research each year, supporting several faculty members whose work focuses on soil and water quality, including Dr. Matt Ruark, Dr. Yi Wang, and Dr. Steven Hall.

To close, Tamas asked a clarifying question about the Groundwater Coordinating Council's Joint Solicitation Request for Proposals, specifically, whether university researchers such as Dr. Hall could apply for funding through that process, and whether the program was administered directly by the GCC or through another entity.

GCC members noted that the eligibility for the Joint Solicitation is quite broad. It's open to anyone with Principal Investigator (PI) status at any university in Wisconsin within the UW system. Agency personnel are also eligible. Federal employees, however, are not eligible.

Tamas also noted that the first week of February 2026 there will be the WPVGA annual conference at the Holiday Inn in Stevens Point.

Wisconsin Geological and Natural History Survey – Sue Swanson

Sue Swanson from WGNHS reported on recent budget and funding updates for the Division of Extension and WGNHS programs. She noted that campus-wide and Extension-specific budget reductions are ongoing, including severe federal funding cuts. As a result, the Division of Extension is having to lay off approximately 92 employees.

On a more positive note, several federal funding streams have recently been restored. Funding was released for USGS grant programs, including the Data Preservation Program, which will support improvements to WGNHS's aquifer properties database and a passive seismic measurements database to help determine depth to bedrock. The largest USGS grant, the State Map Award, is still pending finalization but will fund new statewide water table mapping in electronic format, aquifer and aquitard studies in eastern Wisconsin, quaternary and glacial mapping in Rock County and the Driftless Area, and participation in the Great Lakes Geologic Mapping Coalition, which will fund glacial geologic mapping in Sawyer County.

At the county level, WGNHS is coordinating with Rock and Douglas Counties and with DNR groundwater staff to begin water table mapping in Manitowoc County. Sue also highlighted recent publications and resources, including a finalized hydrograph procedure report evaluating depth-to-water in counties where the procedure has historically been applied, a map status viewer launched in early July that allows quick access to published mapping across the state, and 7.5-minute quadrangle geologic mapping completed in Crawford County to support landslide susceptibility assessment along Highway 35 and improve understanding of the driftless area's layered bedrock aquifer system. Additional mapping efforts include new depth-to-bedrock mapping in Grant and Lafayette Counties, a Baraboo region bedrock geologic map, and outputs

from a two-year award for the National Groundwater Monitoring Network, which are expected by the next GCC meeting.

Sue emphasized that much of this positive funding news came through in the past two weeks, marking a productive period for WGNHS mapping and groundwater monitoring efforts.

Department of Natural Resources – Steve Elmore

Steve Elmore provided updates on several ongoing DNR programs and rulemaking efforts. On the rulemaking front, there has been significant activity. The 500 series revisions, specifically the landfill rule updates, were recently approved by the Natural Resources Board and include updates to the NR 507 adm. code groundwater monitoring requirements for landfills; these revisions will take effect October 1, 2025. Revisions to NR 146 and NR 812, covering licensing for well drillers and pump installers and well construction codes respectively, are complete and will be presented to the Natural Resources Board for approval at the September 24, 2025 meeting.

For NR 140 rulemaking, the DNR is currently drafting the economic impact analysis of establishing groundwater standards for six PFAS. EIA completion expected by the end of this year or early next year. NR 809, the Safe Drinking Water for Public Water Systems rule, is also under revision to incorporate new federal EPA standards, including lead and copper rule requirements, as well as technical updates to maintain primacy under the Safe Drinking Water Act. Economic impact analyses for these rules are complete, and the revisions are under passive review by the Natural Resources Board before a public hearing and comment period likely scheduled for September or October.

Regarding the Well Compensation Grant Program, the DNR continues to implement a special version using federal ARPA funds. To date, 208 applications have been received for the second round of grants, with 132 awards totaling $2.51 million issued and another 76 grants under review valued at $1.51 million. The program will continue accepting applications through the end of August, with the goal of distributing the full $5 million allocation.

On PFAS, the DNR has been sampling private wells in the Town of Stella and Sunset Lake areas in Oneida County. As of February 2025, 236 private wells had been sampled, with PFAS detected in approximately 54% and about half of those exceeding DHS recommended groundwater standards. Sampling is now expanding to additional townships in Oneida County. For public water systems, over 1,800 active systems have submitted PFAS compliance samples, with detections in just over 570 systems. About 2% exceeded the current DHS hazard index, roughly 3% had violations of the state PFAS MCL of 70 parts per trillion, and about 5% had detections above the new EPA PFAS MCLs. Only systems with elevated PFAS concentrations are required to continue monitoring under current state rules. Funding through the Bipartisan Infrastructure Law and the State Revolving Loan Fund is available for communities to install treatment or drill new wells, and the DNR is working to make communities aware of these resources.

In response to questions about remediation for private wells, Steve noted that efforts are just beginning. The DNR is working with the EPA, including its Superfund division, to consider the area for potential Superfund status. Initial soil sampling has been conducted, and the focus for private wells is to provide public health protections by offering new wells or treatment systems to reduce PFAS levels. Treatment options for drinking water include granular activated carbon or ion exchange systems; reverse osmosis is less commonly used and not considered the most effective method. High PFAS concentrations in some wells may require multiple treatment units in series, with proper disposal of spent filter media, as PFAS cannot be destroyed but only concentrated and relocated.

In some cases, constructing new wells into deeper formations, such as drilling into the top of the granite and hydrofracturing to improve flow, has successfully reduced PFAS levels. Properly constructed new wells often require smaller treatment systems to address any remaining PFAS. The focus is less on selecting a precise location on the homeowner's property and more on well construction techniques, including depth and sealing, to ensure safer water. Steve emphasized that the DNR is working closely with homeowners, well owners, and well drillers to develop effective solutions while remediation pathways are still being explored.

The PFAS External Advisory Group met concurrently with the DNR update to continue stakeholder engagement and communication regarding PFAS.

Other miscellaneous updates included ongoing work by the Office of Agriculture and Water Quality to update the State Nutrient Loss Reduction Strategy, in collaboration with UW–Madison to assess agricultural best management practices. DNR staff also completed the "Problem Well Viewer," a GIS mapping tool that allows staff to see locations of past private well contamination, understand the resolutions applied, and track well construction details to inform future well replacements and treatments.

Department of Safety and Professional Services (DSPS) – Brad Johnson

Brad Johnson provided updates on DSPS programs, focusing primarily on the hydrograph method and recent rulemaking activities. He explained that over the past 18 months, the agency had suspended part of its rule related to site and soil evaluations for septic systems due to inconsistent results noticed in the field, particularly in the Central Sands region. The method in question uses two wells to extrapolate a depth-to-limiting-factor measurement, but flooding events and saturated conditions revealed that this approach could underestimate groundwater levels. Thanks to the thorough work of staff including Sue and Graham, the agency was able to validate the decision to suspend the method and identify areas needing further evaluation before it could be safely used in the future. The technical advisory committee reviewed the report and expressed concern about continuing the method without additional safeguards, supporting the ongoing suspension to protect public health and groundwater.

Brad also reported on rulemaking efforts, noting that the general plumbing code has finished its final development committee meeting, with collaboration ongoing regarding water quality in plumbing systems. The next step will be finalizing the rules and releasing them for public comment, likely by the end of the year.

He addressed budget-related impacts, noting that the Wisconsin Fund, a grant program that helped low-income households replace failing septic systems, has been fully cut from the state budget after years of intermittent funding. This leaves a significant gap in resources for homeowners needing septic system replacement, and he acknowledged the lack of alternative funding options at this time.

Finally, Brad shared that after 35 years of service to state government, he will be retiring in five weeks. He expressed his gratitude for the opportunity to serve on the council and noted that, until a permanent replacement is announced, Travis will serve as the interim contact.

Department of Transportation (DOT)

No updates.

Closing remarks

Kevin Masarik provided a brief update introducing Cayla Cavey, the new groundwater outreach specialist. Cayla will be taking over much of the testing program work with communities, including extensive testing whose data feeds into the Wisconsin Well Water Quality Viewer.

A recent upgrade to the Wisconsin Well Water Viewer was also highlighted. Using EPA funding, the DNR was able to update the platform, preventing it from going offline when the previous system's license with Esri expired on July 1. The new version is open source, does not require a site license, and is easier to maintain. While the platform has a slightly different look, ongoing work is focused on improving functionality, making it a more accessible and user-friendly resource for the public.