

Wisconsin Groundwater Coordinating Council (GCC) Meeting Minutes

Date: February 13, 2026

Time: 10:00 AM – 12:00 PM

Location: DATCP office and Virtual via Zoom

1. Meeting Opening and Approval of Previous Minutes

- **GCC Members and Designees Present:** Joe Van Rossum (Chair), Sue Swanson (WGNHS), Christy Remucal (UW-Madison), Sarah Yang (DHS), Steve Diercks (Governor's Representative), and Mark McColloch (DATCP, subbing for Robby Personette).
- **Introductions:** Chair Joe Van Rossum welcomed attendees, and introductions were conducted for members and guests both in the room and online. The presenters for the day, Adam Freihoefer (DNR) and Jim Tinjum (UW-Madison), were noted.
- **Minutes Approval:** The minutes from the November 14, 2025, meeting were reviewed. Sue Swanson requested a minor edit to the WGNHS update, clarifying that the survey targeted bedrock geologic mapping in Calumet and Barron Counties “due to the vulnerability of groundwater to contamination.” With this modification, the minutes were approved.

2. FY 27 Joint Solicitation proposal review — Jen Hauxwell (UW System)

Jen Hauxwell reported on the conclusion of the peer review process for the FY 2027 Joint Solicitation. Reviewers from across the country and beyond participated, and 16 of the 20 submitted proposals scored in the highest tier, with the remaining four falling into the next tier — indicating a strong pool of submissions.

Recommendations have been forwarded to the GCC members and to funding agencies, and final funding decisions are expected in the coming weeks.

Looking ahead to the FY 2028 cycle, the program will aim to match last year's accelerated timeline (with the RFP released in late spring/early summer) so principal investigators can make hiring and student-acceptance decisions in a timely fashion. Agencies were asked to indicate within the next 6 to 8 weeks whether they intend to participate and what their funding allocation and priorities will be.

3. Technical Presentation: Data Center Growth and Water Resource Considerations in Wisconsin — Adam Freihoefer (DNR)

Adam Freihoefer, Water Use Section Manager at the Wisconsin DNR, presented an overview of hyperscale AI data centers and their implications for Wisconsin's water and energy resources. Hyperscale data centers require four key inputs — land, energy, water, and fiber connectivity — and have generated public concern over noise, light, water use, energy use, stormwater, air quality (back-up generators), and transparency at the local level. Regulatory oversight may involve local zoning, DNR high-capacity well review, Great Lakes Compact requirements, PSC energy review, stormwater and wetland permits, and wastewater considerations.

There are currently three active hyperscale AI data centers in Wisconsin :

- Vantage (Port Washington): ~2.5 million sq. ft.; closed-loop cooling system; ~666,000 gallons/month average use, with infrastructure capable of handling up to ~1.2 million gallons/day for peaks and emergencies; water sourced from the City of Port Washington (Lake Michigan); ~1.3 GW energy demand.
- Meta (Beaver Dam): ~700,000 sq. ft.; closed-loop cooling; ~240,000 gallons/month; water supplied by the City of Beaver Dam municipal high-capacity wells; energy demand currently the subject of a disclosure lawsuit.
- Microsoft (Mount Pleasant — Phase 1): ~1.2 million sq. ft. (with future expansion); closed-loop cooling; ~233,000 gallons/month average, with peak days approaching a typical month's volume; water from the City of Racine (Lake Michigan); ~450 MW energy demand.

Key Takeaways:

- Closed-loop systems with chemical additives and dry coolers have substantially reduced direct water use compared to earlier-generation data centers, though the chemistry of the additives is generally proprietary, complicating wastewater planning.
- The data centers themselves are not large direct water users by Wisconsin standards (e.g., a single Central Sands irrigation well averaged ~11 million gallons/month during the 2023 growing season).
- The much larger water-resource impact comes from the energy required to run them. Energy generation is already the largest water user in Wisconsin: 36 facilities account for ~73% of statewide withdrawals, and the 10 largest plants alone withdrew ~715 billion gallons of water last year, with ~9.7 million gallons lost to consumptive use.
- The DNR's 2024 Water Use Report (released December 2025) features the energy-water nexus and is available on the agency website.
- Communities serving 10,000 or more residents were required to complete a Water Supply Service Area Plan by December 31, 2025; these plans are a critical tool for evaluating whether a municipality can absorb new industrial customers such as data centers.

Discussion following the presentation addressed proprietary cooling-loop chemistry, the lack of disclosure on additives and discharge frequency, and the tension utilities face between gaining industrial revenue and pursuing conservation.

4. Radiators or Reservoirs, a Geothermal Heat Exchange Case Study on the Thermal Balance for a Cooling-Dominate Complex — Dr Jim Tinjum (UW-Madison)

Dr Jim Tinjum presented a complementary perspective focused on energy use and the potential for geothermal exchange to reduce the cooling demand of data centers. According to the Congressional Research Service, data centers accounted for roughly 4.4% of U.S. electrical use in 2024, with projections approaching 12% by 2028. Cooling represents 40–45% of a data center's electrical load.

Geothermal exchange could reduce cooling-related energy demand by an estimated 40–60%. Field data show coefficients of performance (COP) of 7–8 in the cooling season and 3.3–4.3 in the heating season for these systems, far exceeding traditional air-source equipment.

Case Study — Epic Systems Campus, Verona, WI:

- Nearly 100% of campus heating, cooling, and domestic hot water is supplied by geothermal exchange (with limited backup boilers serving the auditorium).
- To Dr. Tinjum's knowledge, this is the world's largest geothermal exchange network. The system is cooling-dominant due to the campus's data-processing load.
- The borehole field has expanded from 578 boreholes in earlier phases to roughly 2,400 today, with one recent field (Field 4) alone adding 858 boreholes.
- Long-term monitoring has documented gradual heat buildup in the subsurface reservoir — on the order of a few degrees Celsius over multiple years of operation — which is being tracked closely.

Domestic Wisconsin manufacturers supply much of the heat-pump and drilling equipment used in these systems, which represents a workforce-development and economic opportunity for the state. Dr. Tinjum noted, however, that workforce shortages, particularly of qualified drillers in the Upper Midwest, are a constraint on broader deployment.

Discussion centered on the potential for groundwater quality changes (e.g., temperature-driven arsenic mobilization) and the need for sustained groundwater quality monitoring around large geothermal fields.

5. Agency Updates

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

Mark McColloch reported on behalf of DATCP. The Environmental Quality Program is finalizing the 2025 Surface Water Report, which evaluates 15 years of data, and is coordinating 2026 surface water sampling with DNR field staff. Annual reports for the field-edge targeted programs are underway, with sampling expected to begin in April. The agency is evaluating three new compounds for addition to its pesticide list, which would bring the total to 118.

DATCP is also developing social-media outreach for Groundwater Awareness Week (March) in collaboration with its digital communications specialist. The Nitrogen Optimization Pilot Program received 18 applications for Cycle 4 by the January 17 deadline; awards will be announced in late February. Four regional nitrogen workshops are being held in February and March in partnership with UW-Extension Crops and Soils. The Producer-Led Watershed Protection Grants program received requests totaling \$1.65 million from 49 groups (including 4 first-time applicants and 3 with carryover funding) against \$1 million available, indicating strong demand. The ATCP 52 permanent rule update — covering producer-led grants, the Commercial Nitrogen Optimization Pilot Program, and crop insurance rebates — has been approved by the Governor and forwarded to the Legislature.

Wisconsin Geological and Natural History Survey (WGNHS) – Sue Swanson

Sue Swanson reported that the survey published a new statewide bedrock topography raster dataset in January led by GIS specialist Matt Rehwald. The Survey also released a new hydrogeologic atlas for Burnett County (water table elevation, depth to water, depth to bedrock, recharge, and contamination vulnerability), led by Maureen Muldoon, Amy Wiersma, and Matt Rehwald, and has begun similar assessments for Rock, Sawyer, and Douglas Counties, with early discussions underway in Pierce County. The Survey is also hiring a geologist to support bedrock and hydrogeology research and mapping; the position closes next week.

University of Wisconsin System (UWS) – Christy Remucal

Christy Remucal noted that, beyond the Joint Solicitation update, the Aquatic Sciences Center maintains the Wisconsin Groundwater Research Monitoring Program repository, which houses funded project listings and final reports dating back to 1985. The Center is currently working through accessibility upgrades for these archival materials. Internally, funding mechanisms have shifted and administrative complications have occurred for transferring funds outside UW-Madison; campus partners are working through these issues. On the federal side, in mid-January Congress passed and the President signed a “minibus” appropriations package covering Commerce-Justice-Science (which funds Sea Grant), Interior (which funds USGS — the source of Wisconsin Water Resources Institute support), and Energy and Water. Both Sea Grant and the National Institutes for Water Resources had been zeroed out in the President's budget request, so the outcome was favorable: the national WRI program received a slight increase from \$15.5 to \$16 million across all 54 institutes, and Sea Grant received level funding. UWS staff will travel to Washington in early March for Hill visits regarding the next fiscal cycle.

Department of Health Services (DHS) – Sarah Yang

Sarah Yang reported that DHS is largely in a steady-state mode, awaiting the next cycle request from DNR on groundwater standards and continuing its routine work. Preparations are underway for messaging tied to the spring flooding season; no major programmatic updates were shared this quarter.

Governor's Representative – Steve Diercks

Representative Steve Diercks noted that he had recently completed his annual planning meeting and anticipates an interesting year ahead for several agricultural-research priorities.

Department of Natural Resources (DNR) – Steve Elmore

The DNR provided a comprehensive rule and program update:

- **NR 500 Series (Waste):** Revisions remove chemical oxygen demand (COD) from landfill monitoring (because COD analysis generates mercury hazardous waste). Paper-mill sludge landfills will instead analyze for dissolved organic carbon in groundwater and total organic carbon in leachate. Approved monitoring plans for individual landfills will need to be updated.
- **VOC Analysis:** The waste program is changing its interpretation of acceptable VOC analytical methods for water-supply well samples and will now require approved NR 809 (Safe Drinking Water) methods, providing lower detection limits and stronger QA/QC.
- **NR 146 and NR 812:** Revisions to well construction (NR 812) and well-driller and pump-installer licensing (NR 146) take effect on March 1, 2026.
- **NR 140 (Groundwater Standards):** DNR is proposing new groundwater quality standards for six PFAS compounds; the Economic Impact Analysis, and draft Board Order will be released soon.
- **NR 809 (Public Water Supply):** Three rule packages are in process — incorporating the federal EPA MCLs for PFAS, aligning with the federal Lead and Copper Rule, and addressing technical edits. All three have been approved by the Natural Resources Board and are now with the Governor's Office or Legislature.
- **Well Compensation Grant Program:** ARPA-funded program is winding down, with the additional \$5 million round fully obligated. The latest round funded 223 well

replacements and 46 well filling-and-sealing grants; over 800 grants have been awarded across the life of the program.

- **Oneida County PFAS Sampling Update:** Of 138 results from the towns of Crescent, Newbold, Pelican, Pine Lake, Stella, and Sugar Camp: ~14% (20 wells) had PFAS detections above the DHS drinking-water health advisories; ~25% (34 wells) had detections below the DHS drinking-water health advisories; and ~61% (84 wells) had no detection.
- **Public Water System PFAS Sampling:** Of approximately 1,900 active systems sampled, ~30% (573) have PFAS detections, ~2% (40) exceed the DHS hazard index and have issued public notices, fewer than 1% (3) violate the current 70 ppt MCL, and ~5% (94) have entry-point detections that would exceed the new EPA MCLs once those rules are formally promulgated in Wisconsin.
- **PFAS External Advisory Group:** The next meeting is scheduled for February 20, 2026.
- **Office of Agriculture and Water Quality:** On December 9, 2025, the office co-hosted (with the Interagency Water Quality Work Group) an Agriculture and Conservation Roundtable attended by approximately 150 farmers, industry representatives, conservation organizations, and agency partners. Priorities identified at the roundtable are being integrated into the State Nutrient Loss Reduction Strategy.

Carla Romano (DNR) reminded members that work on the annual GCC Report will begin in March — earlier than in past years — to allow additional time for accessibility formatting. She emphasized that, while DNR coordinates the report, full review of the document remains the responsibility of each member agency.

6. Closing Remarks

Carla Romano proposed moving regular GCC meetings to the third Friday of each month, which has historically been the most accessible day for members. She will circulate an email to confirm with members not present at this meeting before the change is finalized.