

Wisconsin Groundwater Coordinating Council
Minutes from meeting held August 19th, 2011, 10:00 – 12:15
Wisconsin Department of Natural Resources
Room G09, 101 S. Webster St. Madison.

Members Present: Jill Jonas for Ken Johnson (DNR); James Robertson (WGNHS); Dan Scudder (DOT); Henry Anderson (DHS); John Petty (DATCP); Eric Scott (DSPS); Anders Andren (UW-System).

Others Present: Chris Babiarz, Phil Moy (UW-WRI); Robert Stelzer (UW-Osh. Department of Biology and Microbiology); Ken Bradbury (WGNHS); Lori Bowman (DATCP); Megan Christensen (DHS); Ed Morse (WRWA); Laura Chern, Dave Johnson, Bill Phelps, Brian Austin, Jeff Helmuth (DNR).

- 1) **Introductions and General Business** - Introductions were made. The May 6th, 2011 meeting minutes were unanimously approved (motion by Anderson, 2nd by Petty). A handout of GCC Subcommittee appointments was distributed reflecting recent appointments (<http://dnr.wi.gov/org/water/dwg/gcc/rtl/2011/Report/Members.pdf>).
- 2) **Technical presentation: Recent Nitrate Research Results** - Dr. Robert Stelzer discussed a series of three UWS-funded projects focused on denitrification within and below the hyporheic zone i.e. the region beneath and alongside a stream bed, where there is mixing of groundwater and surface water (see presentation at <http://dnr.wi.gov/org/water/dwg/gcc/rtl/minutes/2011AugStelzer.pdf>).

Previous work by Stelzer's group showed groundwater discharge explained about 60% of the variation in nitrate retention in Emmons Creek (Waupaca and Portage Counties). This result suggests that processes in the sediments are important in driving nitrate retention and led to the initial work funded by the UWS. Sampling sediment and groundwater in Emmons Creek helped determine that significant denitrification was occurring much deeper in the sediments than previously thought.

Further work looked at nitrogen processing in shallow sediments at 8 sites in the Waupaca River network. At low groundwater nitrate concentrations, denitrification increased rapidly with increasing N. As N increased above about 5 mg/l, denitrification rates increased much more slowly. Higher concentrations of fine particulate organic matter contribute to denitrification by setting up anoxic conditions and providing a carbon source for the bacteria. The third project is looking at the role of quantity and quality of particulate organic carbon in regulating nitrate processing.

In conclusion the results suggest that shallow groundwater systems associated with rivers can remove nitrate but this capacity can be overwhelmed at high nitrate concentrations. Also, preliminary results suggest that riparian vegetation promotes denitrification in sediments by providing a carbon source suggesting that natural stream channels and sediments are important for promoting nitrate removal. Stelzer remarked that in the future he would like to gain a better understanding of the microbial communities responsible for the denitrification.

- 3) **2011 GCC Report to the Legislature** - Helmuth stated that the report had not greatly changed since the 2010 report but listed some notable improvements, including:
 - Meeting minutes and PowerPoint presentations are now on the website.
 - Numerous updates were made to the list of research and monitoring projects.
 - The Groundwater Quantity section is now broken into subsections
 - Updates regarding the Great Lakes Compact were made in several sections.
 - The format and content of the recommendations were revamped to improve organization and increase clarity.

August 19, 2011 GCC meeting minutes

Andren made a motion to approve the report. Robertson seconded, and the report was unanimously approved. The GCC thanked Helmuth for his work on the report. He acknowledged help from many through an exemplary multi-agency effort.

- 4) **Strategic Priorities for FY 2012** - Jonas noted that the GCC's Strategic Priorities contains a timeline that shows an annual timeline for setting priorities. That timeline was not updated after the decision was made to set priorities for a two-year period instead of one so Jonas suggested revising the timeline to reflect the biennial period. There was consensus that this should be done.

5) **Agency Updates**

DATCP – Bowman reported:

- The scope statement for ATCP 50 (Nutrient Management) goes to the ATCP Board in September [Note: the Board approved the scope statement on September 7th thus starting the rulemaking process.]
- The scope statement for ATCP 51 (Livestock Facility Siting) is anticipated to go to the ATCP Board later this year.
- DATCP and DNR are working with two local governments to rescind ordinances on aquatic pesticide use that surpass local authority.
- A new turf herbicide, Imprelis, has been linked with numerous cases of damage to trees (especially pine and spruce) associated with applications to surrounding turfgrass. Reports of damage have been widespread in Wisconsin and across much of the country. U.S. EPA issued an order to halt the sale, use, or distribution of Imprelis and its manufacturer, Dupont, is facilitating returns and refunds. DATCP is evaluating the need to monitor groundwater in the future for this chemical, since it has groundwater warnings on the label.

•

WGNHS – Robertson reported:

- The proposed taconite mine in Ashland and Iron Counties has been of interest though no notice of intent has been filed. Data on the geology, chemistry and hydrology of the site is sparse.
- Sand mining for hydrofrac sand used in shale gas mining continues to be heavy and is targeting Jordan, Wonewoc and St. Peter Sandstone formations. The resulting landscape modifications may be locally significant. Water use, rinse water quality, truck traffic and air quality impacts are all potential issues.
- Staff are working with DNR's Water Use program on improvements to the groundwater level observation network.
- Bradbury, Gotkowitz and others continue to work on virus transport studies:
- Mike Parsen continues to update the Dane County regional groundwater flow model.

DSPS – Scott reported:

- The Divisions of Safety & Buildings (S&B) and Environmental and Regulatory Services (ERS) have had three Administrators since the creation of the new Department of Safety and Professional Services (DSPS), July 1. [Note: S&B and ERS have a new Acting Division Administrator. A permanent Administrator and Deputy are expected to be appointed in October.]
- The Divisions of Safety & Buildings and Environmental and Regulatory Services (ERS) will remain at 201 W. Washington for the near future.
- The Division unit that provides credentials for the building industry, IT Services, and Fiscal Services has moved to 1400 East Washington Avenue in Madison.

DHS – Anderson reported:

- A new Division of Public Health Administrator has not yet been appointed so Anderson continues

August 19, 2011 GCC meeting minutes

to fill that role in addition to being Chief Medical Officer

- DHS issued an advisory based on private well testing showing low (below standard) levels of dinitrotoluene near the Badger Army Ammunition Plant
- Megan Christiansen is evaluating the Fee-Exempt Well Testing Program. Her evaluation should be done at the end of the year. She's looking at how counties are using the program and if not, why not.

DNR – Jonas reported:

- The Water Use program is implementing the registration and reporting (NR 856) and fee (NR 850) administrative rule provisions that became effect in January 2011. The program will also process water use permits for existing withdrawals in the Great Lakes basin under NR 860, by December 2011. Permits for new or increased withdrawals in the Great Lakes basin will also include mandatory water conservation measures in accordance with NR 852—which took effect in January 2011. Administrative rules pertaining to water supply service area planning and water loss/consumptive use remain in the drafting stage.
- Waukesha Great Lakes Diversion Application – The City of Waukesha completed their application. DNR has begun preparing a detailed technical review and environmental impact statement (EIS). Public hearings were held in July in Pewaukee, Wauwatosa, and Sturtevant to solicit comments on the EIS scope and the review criteria. A second series of public hearings will be held after completing a draft EIS and technical review no sooner than November 2011.
- Lake Beulah - The State Supreme Court unanimously affirmed the DNR's broad authority and duty to manage, protect, and maintain waters of the state. The Court also recognized the connection between surface water and groundwater and concluded that the DNR may consider whether any proposed high capacity well may harm waters of the state, such as lakes and rivers. DNR is reviewing the decision to evaluate its impact on the high-capacity well application process.
- Region V Source Water Managers Meeting, September 14-16 - Wisconsin will host the source water protection managers from neighboring states, along with their Rural Water Association colleagues and U.S. EPA staff. Among the agenda items is how to coordinate work between our Clean Water and Safe Drinking Water Act programs.
- Nitrate project – Work to investigate strategies needed to reduce nitrate contamination of drinking water and evaluate the potential for changing practices to reduce nitrate leaching to groundwater is underway. Non-community water system nitrate data will be mapped by subwatersheds. Work will include collaborating with surface water staff to find focus areas to model the N load reductions needed. DATCP staff and others will be consulted this fall to check on the technical approach and plans.
- Enterprise agency pilot – For the 2011-13 biennium DNR has been granted flexibility in several areas including hiring, and fleet and facility management.
- Organizational changes – The agency as a whole is establishing a line supervisory structure. Each supervisor will have a particular functional expertise. Further changes in the Water Division include: 1) establishing four administrative units and eliminating one Water Leader position in Milwaukee; 2) having Water Leaders report to the Deputy Division Administrator; 3) replacing the existing large Watershed Bureau with two new smaller Bureaus; and 4) establishing direct reporting of all private water supply program staff to the Section Chief.

- 6) **Adjourn and Next Meeting** - Robertson moved (Scott 2nd) to adjourn. The next meeting will be on November 4th at DATCP.

Respectfully submitted by Jeff Helmuth