# NEWS FROM EXTENSION

**Wood County |** May 2025

## Introducing Human Development & Relationships Educator, Ben Eberlein!

Hi! My name is Ben Eberlein and I'm thrilled to join Extension as the new Human Development and Relationships Educator for Wood County.

Originally from the Milwaukee area, I settled in Wisconsin Rapids in 2013, and I couldn't imagine home anywhere else. Since then, I've had a blast getting to know the community as I've followed career opportunities where I could learn & grow. From sales, to communications & marketing, to small business management, and most recently community engagement, it's been a rewarding path anchored in local business and non-profit work.

Before joining Extension, I spent the last four years at United Way, which opened my eyes to the reality of financial hardship experienced by many households throughout Wood County. Since starting in my new position at the end of April, I've been working hard to learn Extension programming and meet with community partners to deepen my understanding of the community's needs around financial education. I'm beyond grateful for the privilege to do this work and look forward to making a difference by helping others learn skills for financial security.

At home, I stay busy with my wife and our two boys doing activities outdoors & playing family games on the Nintendo Switch.

If we haven't met yet, please reach out! I would love to learn how we can work together to make an impact. You can get in touch by emailing me at ben.eberlein@wisc.edu or calling my office at 715-421-8441.

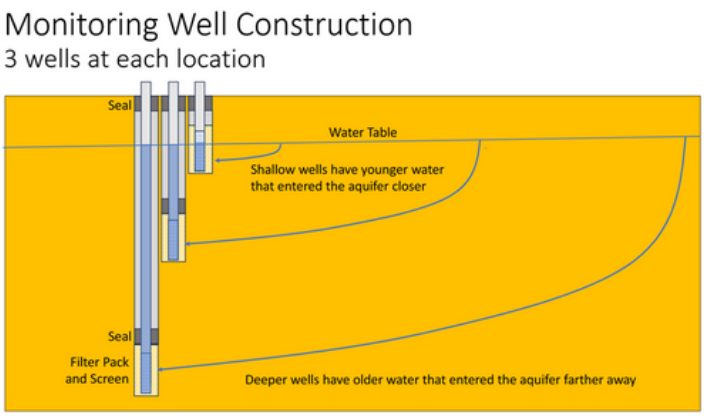
# Monitoring Water Quality in Solar Farm Development

*by Jen McNelly, Natural Resources Groundwater Educator*

UW-Division of Extension is partnering with the Department of Agriculture Trade and Consumer Protection (DATCP), the Town of Plover, and Portage County to monitor groundwater quality changes in the Portage Solar Project in Portage County, WI. The Portage Solar Project is a 250-megawatt solar photovoltaic electric facility located on 1,800 acres just south of Highway 54 between Plover and Wisconsin Rapids.

Natural Resources Groundwater Educator, Jen McNelly and hydrogeologists, Maureen Muldoon and Dave Hart from the Wisconsin Geologic and Natural History Survey (WGNHS) felt that the Portage Solar Project would serve as a great test case to monitor changes in groundwater quality as the acreage undergoes a significant land use change from its current use as irrigated agricultural and transitions into the solar project. The area has been primarily used for irrigated agriculture for decades and has a history of having elevated nitrate-nitrogen concentrations in the groundwater. Many residents have asked over the years, "*What would happen if we just stopped applying nitrogen to the landscape?*" and while scientists can provide rough calculations on how the changes in water quality might be or approximately how long changes might take, these monitoring wells will be one of the first times in Wisconsin that this change is being consistently monitored.

WGNHS installed 3 nests of monitoring wells just outside of the solar project, in local road right of ways. Each well nest consists of three separate monitoring wells. Each well is cased to a different depth. One well is shallow in the aquifer, one at a middle depth, and one deeper in the aquifer (see figure 1). One nest of wells is upgradient in the groundwater flow path, indicative of groundwater quality prior to entering the solar project. The other two wells are down gradient from the solar project to capture groundwater quality as it travels through and exists the project.




The first water quality samples were collected from the wells in November 2024 and will be sampled quarterly for nitrate-nitrogen, other background water quality analytes and metals. DATCP will be sampling the wells twice a year for nitrate-nitrogen and a suite of pesticides including neonicotinoids. The samples collected in November 2024, February and May of 2025 will all serve as a baseline representing conditions prior to development. It is the intent that this monitoring will continue well into the life of the solar project, hopefully identifying changes in water quality.

Funding for the wells and sampling has come from a variety of sources including an EPA grant awarded to the WGNHS, a donation from the National Grid Renewables, and sampling as part of DATCP's ongoing edge of field monitoring program. It is the hope that the data collected from this project can be used to better understand groundwater in the Central Sands and the potential impacts from such land use changes.

If you have questions about the project or groundwater quality in the Central Sands Region of Wisconsin, please feel free to reach out to Jen McNelly, Natural Resources Groundwater Educator at: jennifer.mcnelly@wisc.edu | 715-421-8677