



## **Nebraska Wellhead Protection Network**

Wednesday – June 21, 2017  
11:00 pm – 3:00 pm

Hastings Water Department  
1228 North Denver Avenue  
Hastings, NE

### **Present:**

Daryl Anderson – Lower Platte North Natural Resource District (NRD), Ben Beckman – Nebraska Water Center at University of Nebraska Lincoln, Sara Brock – The Groundwater Foundation, Ryan Chapman – Nebraska Department of Environmental Quality (NDEQ), Rod DeBuhr – Upper Big Blue NRD, Donnie Engelhardt – Little Blue NRD, Russ Iwan – Metropolitan Utility District (MUD), Laura Johnson – NDEQ, Amanda Jones – NDEQ, Marie Krausnick – Upper Big Blue NRD, Dylan Long – Little Blue NRD, Carla McCullough – NDEQ, Jason Moudry – Lower Loup NRD, Mike Onnen – Little Blue NRD, Lindsey Phillips – NDEQ, Sam Radford – NDEQ, Tara Sampson – NDEQ, Jenny Sidlo – Hastings Utilities, Greg Sixt – Tufts University, Scott Snell – Upper Big Blue NRD, Marty Stange – Hastings Utilities, Courtney Widup – Upper Big Blue NRD

Sara Brock (The Groundwater Foundation) – Called the meeting to order, welcomed those present and went over the agenda.

### **ROUND ROBIN NOTES:**

**Metropolitan Utility District** – Russ Iwan discussed MUD's lack of zoning authority for the wellfields of both Platte West and Platte South. He is working with Douglas county to develop a multi-county wellhead protection overlay district, and is about to start the process in Cass and Sarpy counties. MUD hopes to do the same with Saunders County in the future.

**NDEQ** – Ryan Chapman shared the completed 2016 Nebraska Groundwater Quality Monitoring Report which features a new nitrate concentration map that takes into account nitrate levels and sample sizes for easy visual analysis. This should assist in the unification of groundwater management plans and best management practices including groundwater management phases. Nationally, Watershed Management Plans are based on surface waters (a result of the Clean Water Act) to address nonpoint source pollution. Nebraska gets \$1.5-2 million to do watershed management projects.

The 319 guidance indicates that management plans must come before dollars will be allocated for action projects.

Sam Radford and Laura Johnson are continuing to raise awareness that the groundwater focused watershed management projects are now eligible for 319 nonpoint source grant funding as a result of EPA accepting the Bazile Groundwater Management Plan. They are working with various experts such as Sue Lackey and Dan Snow to collect data from the vadose zone, soil, and surface water. Sam is presenting at the Northwest Oklahoma Water Action Team workshop on Bazile's nitrate mitigation project and other work NDEQ is doing throughout the state to increase participation in on-the-ground BMPs to reduce nitrate contamination.

Sam also introduced the Testing Agricultural Performance Solutions (TAPS) program that is currently in the middle of its inaugural year. TAPS is set up as a contest where producers will compete against each other as well as UNL scientists for (1) most profitable farm, (2) highest input (water and nitrogen) use efficiency, and (3) greatest grain yield. The goal of the Nebraska Farm Management Competition is to promote efficiency and profitability while giving a chance to learn from those who grow corn profitably. Monetary prizes are awarded to those who are the most efficient and utilize the least fertilizer and water to produce crops of significant quality and quantity. While the first contest has been initially limited to growers in North Platte, there are plans to open up future competitions to other organizations, farmers, and non-ag parties throughout the state

Carla McCullough announced that the RFP for the next 319 will be out in July and is due September 5<sup>th</sup> and that the 2017 grant remains fully funded. DEQ and DNR have plans to collaborate more frequently as the Bazile project moves forward to share and maintain updated information and offer a unified message to those looking at Nebraska as a model for successful water quality management.

NDEQ and JEO will put on 5 risk communication trainings to NRDs. These workshops work towards establish a statewide campaign on nitrates, include a wide array of partners, and develop a unified message on reducing nitrate contamination by completing the following goals and objectives:

1. Target workshop participants based on NRD staff, project partners and stakeholders who will be presenting plan information to the public, leading stakeholder meetings or public open houses, or talking to land owners or producers one-on-one to encourage them to adopt best management practices.
2. Provide participants with a working understanding of science-based risk communication principles and techniques that will assist them in overcoming communication barriers that can occur between communities, producers, municipalities and regulatory agencies in resolving nonpoint source contamination program management objectives.
3. Complete hands on training, group exercises, and group-specific scenarios practice risk communication techniques which will allow participants to

successfully communicate and build trust in difficult situations including all forms of public presentations and public meetings.

The Bazile group will be the first to undergo this training with plans to conduct four additional workshops over the next year and a half.

Source Water Program funds are reserved for small communities (<10,000 people) who prove financial need. Source Water funds can pay for planning. The deadline for submissions were in early June and those awarded the grant will be notified in early August. Tara Sampson and Lindsey Phillips discussed the State Resources Fund, the rules and regulations of which were recently updated to make more NRD and Rural Water Districts eligible for Source Water Grants.

While SRF loans are mostly used by municipalities for drinking or clean water projects, they are can now offer loans to complete watershed planning or implement watershed projects at or below market interest value. Individuals are also now welcome to participate in the Linked Deposit Program which allows the DEQ provide funding to local banks which will then administer individual loans to participants in existing watershed management plans or clean up septic system/nonpoint source pollution.

Amanda Jones is newly in the position of evaluating groundwater modeling and injection well permits.

**Little Blue NRD** – Dylan Long shared updates on the 50 year time travel Fairbury is doing with its domestic wells. Mike Onnen added that the NRD is in the process of reviewing its groundwater management plan, specifically its requirements for a groundwater management area, triggers to implementation of different levels of regulation, and spacing of development requirements for wellfields.

Dylan and Mike introduced Donnie Engelhardt, an expert in soil health, to the district and shared that he will be working closely with farming communities to reduce nitrates.

**Upper Big Blue NRD** – Rod DeBuhr and Marie Krausnick introduced York's Project GROW (Growing Rotational crops On Wellfields) as a result of York's status as a food desert. They are turning their focus to community gardens and dryland farming practices to increase efficiency and local food production and distribution within York's wellfield. Plans are in place to plant the first batch of cover crops in the fall of 2017. Scott Snell, PR and media relations for the district, has designed a logo for the project that is inspired by and cohesive to previous projects that have involved interlocal agreements with the city of York.

The NRDs focus in July is to implement a voluntary integrated watershed management plan and Courtney Widup spoke about working with Hastings Utilities to collect the data needed to justify and monitor the project.

**Lower Loup NRD** – Jason Moudry has been working with JEO consulting in Broken Bow to increase communication between stakeholders and the district. There are forty-four communities are currently participating in integrated management programs and only four are left to send in their reports for review. Broken Bow, partnering with Lower Loup NRD, has applied for funds from the Source Water Program to continue these efforts.

**Nebraska Water Center at University of Nebraska, Lincoln** - Ben Beckman represented the research faculty at UNL to gather information on needs and areas of interest for future investigations. The Water Center is putting on the annual Nebraska Water Tour June 27-29, which is aimed at highlighting a few of Nebraska's projects throughout the state. He emphasized UNL's desire for a broader educational outreach for professionals in the field throughout the state.

**Hastings Utilities** – Marty Stange introduced Greg Sixt, a Ph.D. candidate at Tufts University researching how Nebraska is addressing nitrates, and is looking at Hastings Aquifer Storage and Restoration Project as an innovative remediation technique.

Jenny Sidlo provided up-to-date information on fertilizer application by lawn companies and expressed the enthusiasm by the companies to receive new information for more eco-friendly approaches to lawn care.

**Lower Platte North NRD** – Daryl Anderson recently moved from Little Blue NRD to Lower Platte North to energize their water conservation division. In August, he will be part of a meeting to discuss NRD databases and research in the GeoCloud.

**The Groundwater Foundation** – Sara Brock mentioned progress on the Recharging Groundwater Education project, a partnership with NDEQ with a goal of eight teacher workshops aimed at getting groundwater education tools in the hands of youth educators, as well as the Water Education for Leaders of Secondary Science (WELS<sup>2</sup>) program. The latter is a 15 month program and The Groundwater Foundation was involved in coordinating a week long workshop for middle- and high-school teachers learning to use the Awesome Aquifer Kit and the Hydrogeology Challenge online program to produce inquiry-based curriculum. Teachers will use these lesson plans in the classroom and be provided with a research experience the following summer. Any

WHPN member willing to be included on a list of guest experts provided to the teacher can contact Sara at [sbrock@groundwater.org](mailto:sbrock@groundwater.org)

## **PRESENTATIONS**

**Marty Stange** introduced the Aquifer Storage and Restoration Project, including its background, its progress, and its goals. Reference the attached powerpoint for details.

## **TOURS**

**Marty Stange** led the group on a tour of the Aquifer Storage and Restoration Project