

## Nebraska Groundwater Monitoring Council (NGWMC)

Spring Meeting

Tuesday, April 17<sup>th</sup>, 2018, 10:00 AM-12:00 PM

LPSNRD offices

1. In attendance: Amanda Jones, Dan Schulz, Daryl Andersen, Abbey Hoessel, David Miesbach, Courtney Widup, Ryan Chapman, Dave Rus, Colleen Steele, Carla McCullough, Ginny McGuire, Amanda Flynn, Paul Woodward, Karen Griffin, Jane Griffin
2. Agency updates
  - a. Olsson Associates
    - i. Working with the PMRNRD on a SWP grant for the City of Springfield
  - b. PMRNRD
    - i. The district's GWMP is approved
    - ii. Drinking Water Protection plans in the future for Springfield & Tekamah
    - iii. Renewed a 5 year contract with USGS to continue groundwater sampling for the district
  - c. USGS
    - i. Working with PMRNRD on sampling
    - ii. Will add emerging contaminants to their sampling plan
      1. Pharmaceuticals
      2. Hormones
      3. Urban contaminants
    - iii. Incorporating AEM and nutrient data for western Sarpy County into GeoScene
    - iv. Working on an ENRA bedrock study
    - v. Field work is complete
    - vi. Need to submit clearinghouse data
    - vii. Doing water studies (mostly quantity) in the High Plains Aquifer
    - viii. Preparing to work on National Water Quality Program = alluvial aquifer sampling of PWS wells
      1. Pharmaceuticals
      2. Age dating
      3. 26 PWS wells statewide
  - d. NDEQ
    - i. Drinking Water Protection Management plans = Waverly, Auburn, Fairbury
    - ii. BGMA area spent all of their NWQI money this year
    - iii. Working on a contract with Olsson's to incorporate WHP modeling into their GET platform
    - iv. Clearinghouse database update
      1. Money in hand – working on contracting
      2. Stakeholder meetings if you're interested
      3. Applied for and received USGS NGWMN grant
    - v. Losing the departments WHP intern – Groundwater Unit staff will be taking over mapping functions
    - vi. Working on a UIC Class I well in Culbertson
  - e. UNL-CSD
    - i. We have about 488,000 analytical results representing over 28,000 wells. Approximately 125,000 of these results are nitrate results.

- ii. Data for 2017 have been received from 18 NRDs. One NRD will not be sending data for 2017 (Middle Republican) and eight have not yet submitted.
    - iii. Processing was completed for Department of Agriculture ELISA (Enzyme-linked immunosorbent assay) data from the Department of Agriculture for 2016 and the data added to the ELISA website. We now have over 3,500 ELISA results in the clearinghouse representing 4 analytes, acetochlor, alachlor, atrazine, and metolachlor. Data for 2017 has been received from Craig Romary.
    - iv. We will begin processing 2017 data soon.
  - f. CPNRD
    - i. Transitioning to new position
  - g. LPNNRD
    - i. Are drilling 52 new monitoring wells into the Dakota north of Fremont. Designed and drilled by CSD
    - ii. Working with Jesse Korus and Dan Snow on potential projects
  - h. LPSNRD
    - i. Measuring spring water levels
    - ii. Finished annual groundwater report for their board
    - iii. Working with Waverly on their Drinking Water Protection Management plan
    - iv. Starting several NO3 verification studies
    - v. AEM data
      - 1. Water Sustainability fund will be used
      - 2. New wells
      - 3. Will have AEM data for all WHP areas
      - 4. Marsh Wren Saline Wetland
        - a. Pumped 8 million gallon onto surface
        - b. Killed cedar and honey locusts
        - c. Lakes salinity increased 15 times
        - d. Open house in September
  - i. NPPD
    - i. Working with NPDES and Drinking Water programs
  - j. Groundwater Foundation
    - i. Department of Education adopted new science standards for groundwater educations
    - ii. Are training educations to use the tools the foundation has
    - iii. Setting up mentoring programs nationwide – looking of volunteers
- 3. Presentation:
  - a. Amanda Jones, NEDQ – An Aquifer Storage and Recovery System in Hastings, NE
- 4. Publications of potential interest (from USGS)
  - a. Akbariyeh, Simin, Shannon Bartelt-Hunt, Daniel Snow, Xu Li, Zhenghong Tang, Yusong Li, 2018, Three-dimensional modeling of nitrate-N transport in vadose zone: Roles of soil heterogeneity and groundwater flux: Journal of Contaminant Hydrology, Volume 211, Pages 15-25, <https://doi.org/10.1016/j.jconhyd.2018.02.005>
  - b. Ascott and others, 2017, Global patterns of nitrate storage in the vadose zone: Nature Communications v. 8, <http://dx.doi.org/10.1038/s41467-017-01321-w>
  - c. Pennino, M.J., Compton, J.E., and Leibowitz, S.G., 2017, Trends in Drinking Water Nitrate Violations Across the United States: Environ. Sci. Technol. 2017, 51, 13450-13460, <http://dx.doi.org/10.1021/acs.est.7b04269>

## **Quality-Assessed Agrichemical Contaminant Database for Nebraska Ground Water**

**Status 4-17-2018 Collen Steele**

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