

Nebraska Surface Water Monitoring Council (NSWMC)

Spring Meeting

Thursday April 26, 10:00 AM-12:00 PM

Lower Platte South NRD, 3125 Portia St, Lincoln, NE

1. Welcome and introductions
 - a. Participating: USGS (Dave Rus); NDEQ (Ryan Chapman, Laura Johnson, John Bender, Greg Michl, Marty Link, Patrick Ducey, Carla McCullough, Dave Ihrie); NDNR (Shuhai Zheng); NDHHS (Elizabeth Esseks); JEO (Adam Rupe, Rick Wilson); NPPD (Abby Hoessel); LPNNRD (Tom Mountford); USACE (Brent Dinkel); LPSNRD (Dick Ehrman); NARD (Dustin Wilcox); NGPC (Dave Tunink); NGOs (George Cunningham); + 4 sons/daughters attending as part of 'Take your daughter or son to work day'
 - b. Many thanks to the LPS NRD for hosting the group and providing some extra activities and swag for the kids in attendance.
2. Agency updates
 - a. NDA (submitted beforehand):
 - i. NDA Pesticides of Interest Evaluation Summary was updated in 2017. This report and other pesticides/water quality info can be found at <http://www.nda.nebraska.gov/pesticide/gwater.html>
 - ii. NDA's Pesticide, Fertilizer, and Noxious Weed Newsletter will likely not be printed again. See archives at the link above (right sidebar), and sign up for e-version. NDA also has a more frequent Plant Health Protection Update e-letter with info about Plant Health Protection programs and related news.
 - iii. Nebraska Buffer Strip Program - the legislature will be 'sweeping' excess account funds in FY19, but there should still be funds for new and renewing buffer strip acres.
 - iv. Ongoing EPA OPP request for pesticides in water data - data that aren't found in major national agency databases (i.e. small projects and others not funded through Federal grants). These could be recent or old data.
 1. Background info at Evaluation and Use of Water Monitoring Data in Pesticide Aquatic Exposure Assessments (<https://www.epa.gov/sites/production/files/2014-12/documents/aquatic-exposure-assessment.pdf>)
 2. Submit to OPPWaterMonitoringData@epa.gov
 - b. USGS
 - i. Ongoing sampling at NAWQA sites; Lower Platte Corridor; Missouri River
 - ii. Continuous water quality at many sites, including nitrate at 3 sites in Lower Platte
 - iii. Have observed reduced fish catch at Maple Creek site, and further observation suggests it might be because flow is increasing there
 - iv. Several regional and national articles that include Nebraska sampling sites have been published in the last 6 months.

- c. LPNNRD: Continued sampling on Shell Creek and cooperation with USGS and NDEQ in various sampling efforts; Shell is being de-listed from the 303D list; Hope to have a celebration later in the summer (co-ordinated with NDEQ and Shell Creek Watershed Group)
- d. LPSNRD: New gages along Oak Creek; Implementing some new cover crop BMP cost-share this year; Lower Platte River Consortium is working to maintain water
- e. NeDNR:
 - i. With reduced agency budget, DNR has no plan to add any new gage stations this year or next. All existing gages will continue to be maintained.
 - ii. Our planning staff are busy in working with NRDs and stakeholders in development of integrated management plans and basin water management plans. One of particular interest is that DNR and DEQ are jointly working with Upper Big Blue NRD in addressing both water quantity and quality concerns.
 - iii. There are five instream flow applications pending.
 - iv. On April 4, the Platte Republican Diversion Interlocal Agreement Partners (PRDIAP) filed its application for an interbasin surface water transfer project. The purpose stated on the application is for “interstate compact compliance”. If approved, the water would be transported through the Central Nebraska Public Power and Irrigation District’s canal system to a point of discharge into Turkey Creek, which is a tributary to the Republican River. For more information about the application, one should contact Mike Thompson, Rights and Registration Division Manager.
- f. USACE: Sampling to begin next week
- g. DHHS:
 - i. Howard Isaacs retired last month (The replacement position is currently being advertised at <http://statejobs.nebraska.gov/> as DHHS Administrator I);
 - ii. Unregulated Contaminant Monitoring Rule: 10 cyanotoxins and 20 additional contaminants to be monitored from 2018-20; See <https://www.epa.gov/sites/production/files/2017-03/documents/ucmr4-fact-sheet-general.pdf> for more information;
 - iii. Doing some Microcystin monitoring in public supply systems (Beaver Lake, Kearney, MUD Platte South as GW under the influence)
- h. NGPC: Temperature monitoring on cool water creeks; Aquatic Invasives (No new distributions of zebra mussels, but populations are growing where they’re already present; They’re monitoring the spread)
- i. NDEQ
 - i. Lots of eDNA sampling: Algae; bacterial; Mammal; This summer to compare to EPA phylochip
 - ii. 2018 Integrated Report was just approved last week;
 - iii. Updates to standards are still being considered; Recreational standard for microcystin likely to change from 20 ppb to something lower (perhaps 9), but the timeline for that change is uncertain.
 - iv. Rotating Basins : Big Blue, Little Blue, and Republican basins are up for sampling this year;

- v. National River and Stream Assessment: 2 year sampling beginning this year
 - vi. Automated database processing: New system working well; Working to get historic data loaded
 - vii. New permit for City of Lincoln just got approved
 - viii. 319 program will probably get a 1% cut over 2018 levels rather than being zero'ed out, so that's good news. RFP will come out as normal in July and will be due Sept 4
 - j. NARD:
 - i. Working to support basin-wide planning efforts and their linkages to IMPs; Looking at excess flows;
 - ii. Lobbied in support of the 319 program to the congressional delegation;
 - iii. Levy authority for overappropriated districts will sunset this fiscal year;
3. Monitoring council business
- a. Citizen science
 - i. Crowd-sourcing for hydrology: https://eos.org/project-updates/testing-the-waters-mobile-apps-for-crowdsourced-streamflow-data?utm_source=eos&utm_medium=email&utm_campaign=EosBuzz041318
 - ii. Virginia DEQ recently gave a presentation on citizen scientists (1,900 samples in 2016 worth \$750K)
 - iii. Jane Griffin of The Groundwater Foundation recently solicited for volunteers to be mentors;
 1. *In short, are you willing to be on my list of experts for potential classroom or mentor opportunities? I am attempting to compile a list that will cover the state of Nebraska so we have a contact point for students from any part of the state.*
 2. *Timeframe: August 2018 - May 2019*
 3. *What You need to do: Please let me know, by return email if you are willing to be on the list or not. If you are willing please provide me with your contact information so I can share that correctly.*
 - b. Several potentially relevant publications in the last 6 months
 - c. Chair election (2 year term; Responsible for coordinating meetings 2x/year)
 - i. A tight race between Dave Schumacher and Dave Rus. Dave Rus relented for fear of Schumacher's wrath, and will continue as the chair.
4. Great presentations from Laura Johnson and Patrick Ducey to describe how monitoring data get used in the planning and permitting process at NDEQ.

Notes submitted by Dave Rus, chair

Some upcoming meetings of possible interest:

- June 5-6, 2018, [Platte Ecosystem Symposium](#) (abstracts due by April 15)
- June 26-29, 2018, [Nebraska Water Center Water Tour](#), North Platte Basin
- July 19, 2018; [Nebraska Floodplain and Stormwater Managers Association](#) Annual Conference, Kearney, NE (abstracts due by April 13)
- March 25-29, 2019, [National Water Quality Monitoring Conference](#), Denver, CO
- Ongoing webinars from the [National Water Quality Monitoring Council](#)

Some recent publications of possible interest:

- 2018 Nebraska Water Quality Integrated Report Draft, <http://deq.ne.gov/Press.nsf/pages/NEWS022818>
- Akbaryeh, 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>
- 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>
- Atkinson, J.C., 2018, Evaluation and interpretation of historical major-ion chemistry for the Lodgepole Creek Watershed, Nebraska: Environmental Earth Sciences (2018) 77:55, <https://doi.org/10.1007/s12665-017-7202-8>
- Bradley and others, 2017, Expanded Target-Chemical Analysis Reveals Extensive Mixed-Organic-Contaminant Exposure in U.S. Streams: Environ. Sci. Technol. 51, 9, 4792-4802, <http://dx.doi.org/10.1021/acs.est.7b00012>
- Conley and others, 2017, Occurrence and In Vitro Bioactivity of Estrogen, Androgen, and Glucocorticoid Compounds in a Nationwide Screen of United States Stream Waters: Environ. Sci. Technol. 51, 4781–4791, <http://dx.doi.org/10.1021/acs.est.6b06515>
- Dave, N.; Mittelstet, A.R. Quantifying Effectiveness of Streambank Stabilization Practices on Cedar River, Nebraska. Water 2017, 9, 930, <https://doi.org/10.3390/w9120930>
- Hammen and others, 2018, Population Characteristics of Shovelnose Sturgeon During Low- and High-Water Conditions in the Lower Platte River, Nebraska: North American Journal of Fisheries Management, <https://doi.org/10.1002/nafm.10023>
- Mark D. Munn, Ian Waite, Christopher P. Konrad, 2018, Assessing the influence of multiple stressors on stream diatom metrics in the upper Midwest, USA: Ecological Indicators, Volume 85, p. 1239-1248 <https://doi.org/10.1016/j.ecolind.2017.09.005>
- 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>
- Waite, I.R., and Van Metre, P.C., 2017, Multistressor predictive models of invertebrate condition in the Corn Belt, USA: Freshwater Science, 36(4):000–000, <https://doi.org/10.1086/694894>