

Nebraska Surface Water Monitoring Council (NSWMC)

Spring Meeting

Tuesday, May 10, 2016, 10:00 AM-12:00 PM

NDEQ Van Dorn Offices, 2717 S. 8th Street, Lincoln, Nebraska

Minutes

1. Welcome and introductions
2. Agency Updates
 - a. USGS
 - i. New continuous water quality at [Platte R at Leshara](#) and [Cub Creek near Beatrice](#)
 - ii. Surrogate water quality available at 3 sites, <http://nrtwq.usgs.gov/ne/>
 - iii. Efforts on the Missouri (Rec. reach along SD border) to assess nutrient processing and explore relations to fish health
 - iv. Continued sampling/monitoring of Missouri R at Omaha; Lower Platte sites
 - v. Wrapping up a blue-green algae study on Willow Creek reservoir
 - vi. NET documentary on water quality may involve some USGS sampling
 - b. NDEQ
 - i. 97 site ambient network
 1. Added 3 sites in Mo Trib basin (Omaha Cr nr Homer; Aowa Cr at Ponca; Bow Cr near Wynot); Want to add another on Bazile
 - ii. Rotating basin at Elkhorn and Mo Tribs
 1. A lot of the sites don't have gages, so they're setting up indirect ratings with survey data
 - iii. Fish sampling to begin in July
 - iv. Intensive sampling on Wahoo Creek this summer
 1. Watershed mgmt. plan; Trying to determine the effectiveness of mgmt. at the subwatershed level; Contemplating a similar study in 2017 on the South Loup
 2. Fish, algae, and chemistry
 - v. WT and pressure loggers being deployed at 10 sites across the state
 - vi. Water quality management plans being finalized for several basins
 - vii. Stream-nutrient assessment project to develop nutrient criteria for Neb. Streams as it relates to ecological metrics (tiles/ DO / algal DNA)
 - viii. Water-quality index being developed for ambient stream data
 1. 0-100 based on 7 parameters
 2. Envision a map of sites and a metric for trend analyses and a baseline for restoration
 3. Send Heatherly the Shell Cr index

- ix. NDEQ data available for 2010-13 in STORET; 2014 nearly done; Working on 2015; Working backwards on 2009 back, will be added over time. Pre-2000 data available on legacy STORET site;
 - 1. Working on a new data-management system to streamline the process
- x. Recreational sampling began last week
 - 1. Added a beach at Sandy Channel this year
- xi. Lake sampling in 2017 as part of the EPA national lake assessment
 - 1. 28 randomly selected sites
- c. NDHS
 - i. There's interest in HABs impact, but it hasn't reached critical mass yet, possibly due to low number of SW systems in NE; Will try to get microcystin sampling implemented this year
 - ii. Nebraska MEDS program will be expanding per the legislature
- d. USACE
 - i. Continued monitoring of the Missouri and
 - ii. W2 model of Zorinsky Lake
 - iii. Working on a database system to load their data into STORET
- e. NDA
 - i. Finalized pesticide management plan for water
 - 1. Will work with State and local agencies to determine where streams are being impacted
 - 2. Will use water quality data
 - 3. <http://bit.ly/NDAPPh2o> - This is the NDA pesticide program's water resources protection page, which contains a link to the policy document I mentioned, the State Management Plan for Pesticides and Water (direct link = <http://bit.ly/NDAPPsm>).
 - ii. Office of pesticide programs at EPA is interested in any pesticide data that isn't available via standard means (STORET, USGS)
 - 1. <https://www.epa.gov/pesticide-reevaluation/water-quality-data-submissions-registration-review>
 - 2. This is the info about how to submit pesticide water quality data that is not normally found in readily accessible databases for the purposes of Registration Review, the EPA human and environmental health risk assessment process for pesticide active ingredients. EPA has indicated in the past, that specific water quality monitoring projects have helped them greatly refine their risk assessment of specific pesticides. Despite the name of the guidance for submitting data, I believe any data, including those not specifically funded through a state water or pesticide agency, are requested. If there are questions, please direct them to the 'contact us' link at this page, or the people listed at the 'guidance' page.
- f. NDNR

- i. North Platte River
 - ii. New director is striving to meet with all agencies
 - 1. Probably will name a permanent contact on this group within the next few months
 - iii. WSF has \$ remaining for next application period
 - g. NGPC
 - i. Niobrara water rights legislation passed
 - 1. NPPD had a \$12M pricetag on the facility, some of which is gifted or already raised; Remainder to apply via WSF
 - 2. Instream flow for the river below the dam was applied for and doesn't sound like it will be contested
 - ii. Last month the Missouri River crew collected Pallid Sturgeon broodstock
 - 1. Interested in participating next year?
 - iii. Fish health on the Missouri River hasn't been great lately, but might be stabilizing
 - iv. Questions about invasive species protocols probably need to be directed to Dave Tunink or Allison Zack
 - h. Volunteer monitoring (Rus reported a little that he knew about)
 - i. [NWN Research station on the Missouri River](#) is supposed to go online next spring;
 - ii. Lil Miss Atrazine project is trying to sample across several days this year
3. Neb. Surface Water Monitoring Council items
 - a. National Water Quality Monitoring [Conference](#) was last week
 - i. Several talks on remote sensing for cyanobacteria monitoring
 - ii. Several sessions on volunteer monitoring
 - b. Discovered an old charter
 - i. Goal of meeting 4x/year and potentially organizing a conference here and there
 - ii. Okay to place it on the website?
<http://deq.ne.gov/GroundW.nsf/pages/GWSWMC>
 - iii. How long to preserve minutes?
 - 1. Let's keep them online for 2 years
 - c. Misc items
 - i. BMAA (a cyanotoxin) is leading to ALS in some areas of the globe
 - ii. Coal-tar sealant might have some health impact, but may not be that prevalent here.
 - iii. Nebraska water seems to be less susceptible to Flint-ish lead issues. Copper might be a more serious candidate.
 - 1. Pipe replacement activities might be temporarily leading to issues
 - 2. Lead and copper rule is a hard one to explain to people, and is very variable
 - d. Upcoming meetings:
 - i. June 4, 2016; Lincoln Waterfest! At Holmes Lake

1. Nebraska MEDS will be there
 2. USGS will be there
 3. DNR – Surface Water table
- ii. June 14-16, 2016; 2016 Water Tour to South Platte Basin in CO (Reg. begins May 1)
 - iii. June 19-22, 2016 ACE16 - American Water Works Association Annual Conference and Exposition, Chicago, Illinois
 - iv. July 21, 2016; Nebraska Flood and Stormwater Management Association annual conference (Abstracts due May 13)
 - v. September 25-28, 2016; GSA, Denver; Abstracts due 7/12
 - vi. November 3-4, 2016; Joint meeting of the NEWEA, APWA, and AWWA, Kearney, NE (Abstracts due May 31)
- e. Recent publications:
- i. National Water Quality Monitoring Council newsletter:
<http://acwi.gov/monitoring/newsletter/index.html>
 - ii. Recent Izaak Walton League report critical of monitoring programs nationwide <http://www.iwla.org/conservation/water/clean-water-your-right-to-know>
 1. The scores don't seem to reflect lots of the monitoring that NDEQ and USGS does
 - iii. Densmore, B.K., Rus, D.L., Moser, M.T., Hall, B.M., and Andersen, M.J., 2016, Sediment loads and transport at constructed chutes along the Missouri River—Upper Hamburg chute near Nebraska City, Nebraska, and Kansas chute near Peru, Nebraska, 2012: U.S. Geological Survey Scientific Investigations Report 2016–5002, 47 p.
<http://dx.doi.org/10.3133/sir20165002>.
 - iv. Fisher, J., Dvorak, B., and Admiraal, D. (2015). "Pollutant Load Estimates Using Regression Models with In-Stream Measurements." J. Environ. Eng., DOI: 10.1061/(ASCE)EE.1943-7870.0001049, 04015081.
 - v. Hamel, M. J., Spurgeon, J. J., Pegg, M. A., Hammen, J. J., and Rugg, M. L. (2016) Hydrologic Variability Influences Local Probability of Pallid Sturgeon Occurrence in a Missouri River Tributary. River Res. Applic., 32: 320–329. doi: 10.1002/rra.2850.
 - vi. Mahler, B.J., Woodside, M.D., and VanMetre, P.C., 2016, Coal-tar-based pavement sealcoat—Potential concerns for human health and aquatic life: U.S. Geological Survey Fact Sheet 2016–3017, 6 p.,
<http://dx.doi.org/10.3133/fs20163017>.
 - vii. Speicher, Allison R., "AN INVESTIGATION INTO BACTERIAL CONTAMINATION IN AN URBAN NEBRASKA STREAM USING MICROBIAL SOURCE TRACKING" (2015). Civil Engineering Theses, Dissertations, and Student Research. Paper 75.
<http://digitalcommons.unl.edu/civilengdiss/75>
 - viii. Tang, Zhenghong, Yue Gu, Jeff Drahot, Ted LaGrange, Andy Bishop, and Mark S. Kuzila, 2015. Using Fly Ash as a Marker to Quantify Culturally-

Accelerated Sediment Accumulation in Playa Wetlands. Journal of the American Water Resources Association (JAWRA) 51(6):1643-1655. DOI: 10.1111/1752-1688.12347

- ix. Wan, N. and Lin, G. (2015), Parkinson's Disease and Pesticides Exposure: New Findings From a Comprehensive Study in Nebraska, USA. The Journal of Rural Health. doi: 10.1111/jrh.12154

f. Upcoming 'Bioblitzes' in May: <http://outdoornebraska.gov/bioblitz/>

- 4. Presentation: Source-tracking of fecal-indicator bacteria in an urban stream, Darshan Baral, University of Nebraska
- 5. Demonstration: There are many ways to skin that cat: A demonstration of online USGS data retrieval – Dave Rus, USGS; Bring your questions or even your laptops
 - a. Providing lots of data to lots of different users can result in what seems like a complicated tool, the [USGS National Water Information System \(NWIS\)](#)
 - i. One tip is to use Chrome for a browser if possible
 - b. Some faq's for **sample** data
 - i. What type of water-quality data are available in my area of interest?
 - 1. Search 'usgs nwis mapper', <http://maps.waterdata.usgs.gov/mapper/>
 - ii. What type of water-quality data are available at my site where I already view flow?
 - 1. Go to the 'Available data' drop down list from the site you're already on, http://waterdata.usgs.gov/ne/nwis/uv/?site_no=06610795 as an example
 - iii. What are all of the Nebraska river data for constituent(s) X?
 - 1. Method 1: NWIS
 - a. <http://nwis.waterdata.usgs.gov/usa/nwis/qwdata>
 - b. Choose an output of either a list of sites or the data
 - c. *One sample per row or one result per row?* Depends on how much metadata you need
 - d. Linking constituent X to a parameter code: Search 'usgs parameter codes' for <http://nwis.waterdata.usgs.gov/usa/nwis/pmcodes>
 - 2. Method 2: Water-quality Portal
 - a. <http://www.waterqualitydata.us/>
 - c. Some faq's for **continuous** data
 - i. What type of continuously measured water quality data are available in Nebraska?
 - 1. From our home page: <http://ne.water.usgs.gov/>
 - 2. Water quality watch: <http://waterwatch.usgs.gov/wqwatch/>
 - ii. Is one data type affected by another? (Nitrate at Leshara as an example)
 - 1. From [this](#) to [this](#)

- iii. Is a nearby site behaving differently? (Turbidity in the Lower Platte as an example)
 - 1. From [this](#) to [this](#)
 - iv. Retrieving continuous data for import into spreadsheets: Use tab-separated option
 - v. What type of continuous water quality estimates are available?
 - 1. Search 'usgs nrtwq' for <http://nrtwq.usgs.gov/>
 - d. Ecological data are also available.
 - i. Search 'usgs biodata' for <https://aquatic.biodata.usgs.gov/>
 - e. Looking ahead, non-traditional data will be available through 'Sciencebase' <https://www.sciencebase.gov/catalog/> but this tool is still being developed
6. LUNCH; Instead of catering in, we'll eat at [Lee's Chicken](#) after the meeting. Consider yourself invited.
- a. Those that went gave it the thumbs up.

Minutes prepared by Dave Rus

NSWMC Meeting
 Tuesday May 10, 10:00 AM-12:00 PM
 NDEQ Van Dorn Facility

Name	Agency/Org.	Email (If Dave doesn't already have it)
Brenda Densmore	USGS	
Greg Michl	NDEQ	
Matt Moser	USGS	
David Schumacher	NDEQ	
Craig Romary	NDA	
Ryan Chapman	NDEQ	
Jeremy Hammen	NDEQ	
Shuhai Zheng	NO DNR	
Frank Allmire	NGPC	
Carla McCullough	NDEQ	
Tom Heatherly	NDEQ	
Dave Fennie	NDEQ	
Hindsey Phillips	NDEQ	
Mike Arcator	NDEQ	
John Hargrave	USACE	
Marty Link	NDEQ	
Howard P. Tsakas	DHHS	
Elizabeth Esseys	DHHS	
Bruce Dronak	UNL	
DARSHAN BARAL	UNL	