

# Nebraska Surface Water Monitoring Council (NSWMC)

## Semi-annual Meeting

Tuesday, June 2, 2015, 10:00 AM-12:00 PM

NDEQ Van Dorn Offices

2717 S. 8th Street, Lincoln, Nebraska

15 people in attendance representing: USGS, HDR Engineering, NWEA, NDEQ, NGPC, LPSNRD, NDA, DHHS, and USACE

### 1. Agency updates

#### a. NDEQ

##### i. Ambient monitoring

1. Focus on Nemaha and Lower Platte basins this year
2. Getting caught up following flooding

##### ii. Ken Bazata is a short timer (July 1 retirement). Congrats to him

##### iii. Lake sampling has begun

1. 28 lakes (statewide + focus on lower Nemaha and lower Platte)
2. Beach sampling
  - a. See handout about 2014

##### iv. Fish tissue report – Focus is now on mercury based on EPA reimbursement guidelines; There are still some concerns for PCBs, perhaps related to hydropower; NDEQ will continue to sample where PCB advisories have already been identified; Have been able to expand sampling into species other than top predators and have found mercury in them

##### v. LPSNRD

1. Recent flooding led to 24 hour levee patrol; Activities were focused on water quantity, not quality; Flood photos available on LPSNRD website

#### b. NGPC

##### i. Aquatic invasive species bill passed to help fund general prevention

1. No water transfer (boats/bait buckets,...) is the recommended practice but large scale inspections are not occurring at this time; CO's can write tickets if they see violations

##### ii. Intensive study at Lewis and Clark Lake for Zebra Mussels this summer

1. There's a hope that the mussel shell found this summer was a dead specimen that traveled on a trailer from out of state

#### c. NWEA

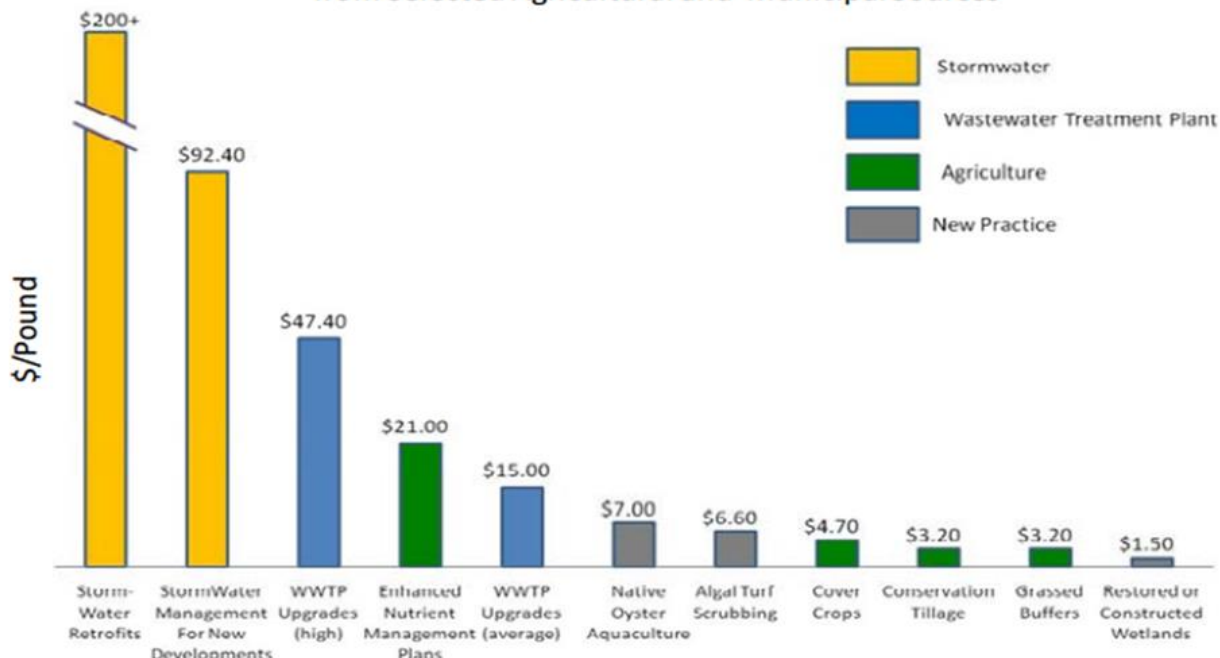
##### i. Recent WOTUS rule

1. Comments provided to EPA, including the query as to enforcement responsibility (State vs Federal)
2. Rule is likely to be tied up in courts for a while

- d. USGS
    - i. Most sampling efforts this year are focused on groundwater, but the standard surface sampling programs (NAWQA, Missouri River, continuous water quality,...) continue
    - ii. Recent sediment assessment in Lewis and Clark Lake Delta
    - iii. New website out that estimates pollutants (E. Coli, atrazine, suspended sediment,...) in real-time
      - 1. Currently available for [Shell Creek](#), but soon will have similar capacity for Platte R at Louisville, Elkhorn R at Waterloo, and Salt Cr at Ashland
      - 2. <http://nrtwq.usgs.gov/ne/>
  - e. Nebr Dept of Ag:
    - i. State pesticide management plan
      - 1. Regulatory hearings are upcoming to adopt the advisory document
      - 2. Document can be found by searching 'pesticide management plan' on the NDA website
  - f. NE DHHS
    - i. Wondering if water levels of the Missouri River are affecting the production quality of the adjacent wells – ongoing and not ready for presentation
    - ii. There are 3 public systems that rely on surface water – EPA has mentioned that microcystins are an issue; Considering weekly sampling at Beaver Lake and Lewis and Clark Lake to check algal levels; Working w/ NDEQ; From a drinking water perspective, they're harder to remove
      - 1. USACE has been sampling Lewis and Clark Lake for many years, though not by the intake
  - g. USACE
    - i. 7 Mo River sites, Salt Valley Lakes; No longer sampling tributary waters; Elutriate sampling along the Missouri River where mitigation activities are planned
    - ii. Added a zebra mussel veliger tow to Lewis and Clark Lake
2. General discussion
- a. Flooding
    - i. Salt Creek
      - 1. Announcements about staying out of the water went unheeded; Some kayakers found out that the undersides of bridge decks weren't smooth or soft
        - a. Having numerical values of pollution probably wouldn't help keep people out of the water
      - 2. No added sampling activities occurred from USGS or NDEQ
    - ii. South Platte
      - 1. NDEQ added bacteria sampling following 2013 flooding; Found that the levels were low compared to ambient sampling across the state
      - 2. No added sampling planned for current flooding

- iii. Requirement to have 10 samples to declare a stream impaired on the 303D list
- b. Mailing lists
  - i. Went over existing email list together to identify if people/agencies are missing
  - ii. If other additions are needed, pass them along to Dave Rus
- c. Newsletters
  - i. Passed around a copy of the publicly available newsletter of the National Water Quality Monitoring Council (<http://acwi.gov/monitoring/newsletter/> )
  - ii. NDEQ provided a synopsis of their sampling program to the NWEA newsletter, [http://www.nwea.org/images/stories/project/52755\\_Effluent\\_Line\\_Vol\\_46\\_No\\_1\\_interactive\\_lores-Reduced.pdf](http://www.nwea.org/images/stories/project/52755_Effluent_Line_Vol_46_No_1_interactive_lores-Reduced.pdf)
- d. Recent publications
  - i. Some recent water-quality articles that use Nebraska data:
    1. Ali JM, Kolok AS, 2015, On-site, serial exposure of female fathead minnows to the Elkhorn River, Nebraska, USA, spring agricultural pulse: Environ Toxicol Chem. 2015 Jun;34(6):1354-61. doi: 10.1002/etc.2928. Epub 2015 Apr 9
    2. Jon C. Atkinson, 2015, Impact of the Dakota Aquifer on major-ion chemistry of Rock Creek discharge, eastern Nebraska, Midwest region: Environmental Geosciences, v. 22, no. 1 (March 2015), pp. 19–33
    3. Richard B. Ferguson, 2015, Groundwater Quality and Nitrogen Use Efficiency in Nebraska's Central Platte River Valley: J. Environ. Qual. 44:449–459
    4. Dana L. Biggam Stephens, Robert E. Carlson, Christine A. Horsburgh, Mark V. Hoyer, Roger W. Bachmann & Daniel E. Canfield Jr. (2015) Regional distribution of Secchi disk transparency in waters of the United States, Lake and Reservoir Management, 31:1, 55-63, DOI: 10.1080/10402381.2014.1001539
- e. Analytical procedures
  - i. Analytical procedures for water chemistry are being scrutinized more closely to ensure the proper procedures are being used
    1. Further investigation into this will be done and more information will be provided
- f. Upcoming conferences
  - i. EPA-USDA National Workshop on Water Quality Markets scheduled for September 15-17 at UNL
    1. <http://www.conservationfund.org/resources/courses-and-events/1036-epa-usda-national-workshop-on-water-quality-markets>
    2. Dave presented a Chesapeake Bay graphic that might be related to the topic of this workshop:

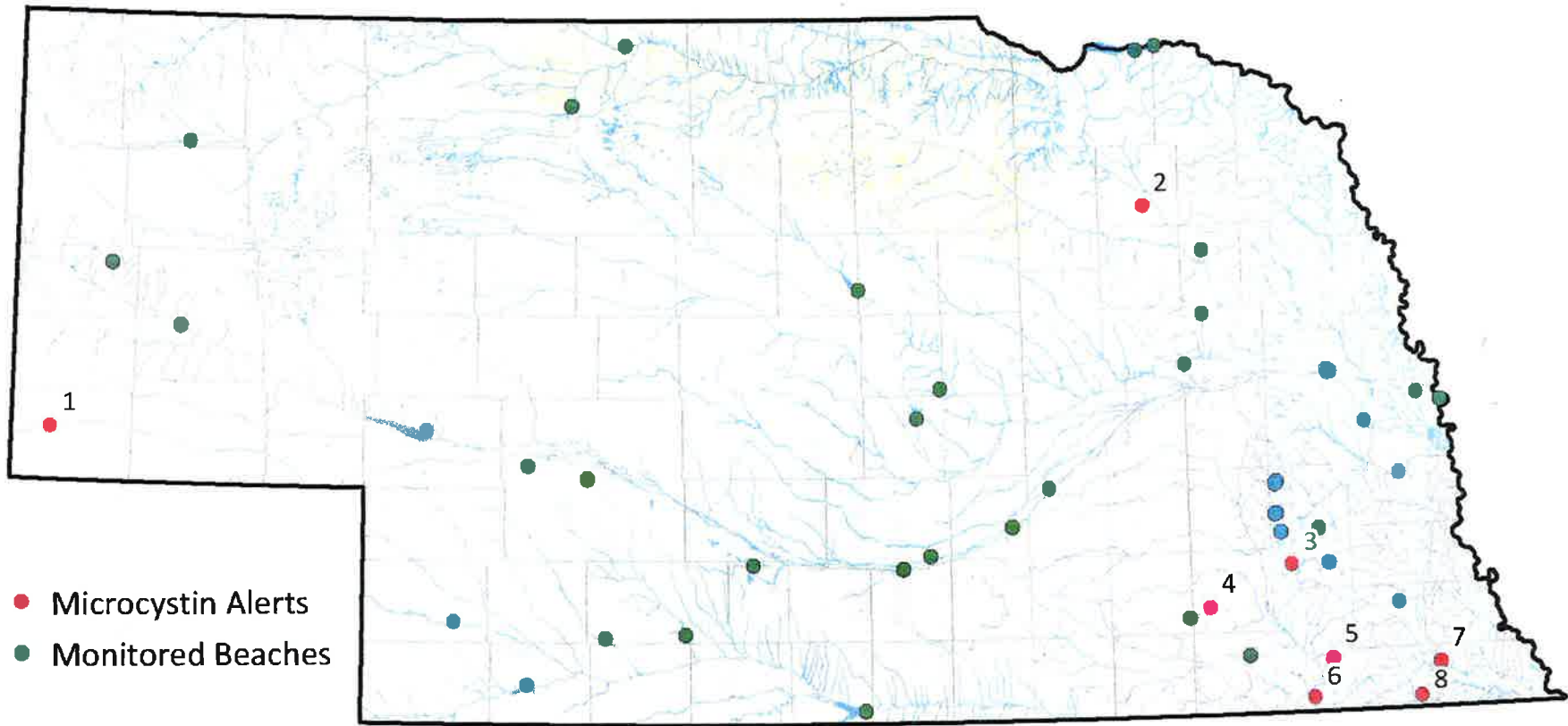
### Cost To Reduce a Pound of Nitrogen Loading to the Chesapeake Bay Watershed from Selected Agricultural and Municipal Sources



Source: CY Jones, Evan Branosky, Mindy Selman, and Michelle Perez, *How Nutrient Trading Could Help Restore the Chesapeake Bay*, WRI Working Paper, World Resources Institute, 2010.

3. There was a fair amount of discussion on the concept of nutrient trading
  - ii. No other meetings/conferences were mentioned
  - g. Next meeting will be in the fall sometime, and will be coordinated with Dan Inman of the Neb GW Monitoring Advisory Council
  - h. We'll start integrating lunches into our future meetings of the NSWMC
3. Presentations/Discussions:
  - a. Evaluating the sediment and nutrient impacts from hydropower on the Mekong River, Vietnam: Dave Rus (USGS)

Minutes prepared by Dave Rus, USGS Nebraska Water Science Center



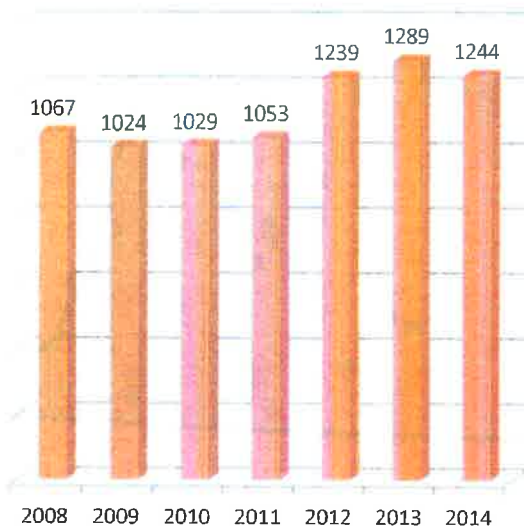
- Microcystin Alerts
- Monitored Beaches

## 2014 Sampling Locations and Health Alerts for Microcystin

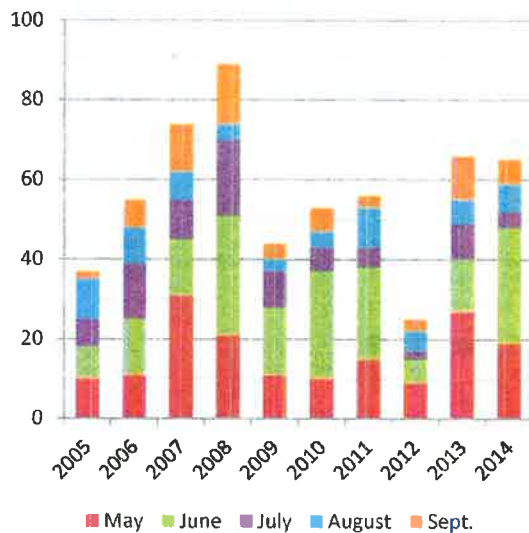
Map #	Waterbody	County	Lat	Long	# of Samples Exceeding 20 ppb	# of Weeks on Health Alert
1	Oliver Reservoir	Kimball	41.227915	-103.82623	1	2
2	Willow Creek	Madison	42.17561	-97.56983	4	6
3	Bluestem	Lancaster	40.62667	-96.79261	3	5
4	Swan Creek	Saline	40.456882	-97.265124	2	4
5	Rockford Lake	Gage	40.223	-96.585397	1	2
6	Big Indian	Gage	40.059699	-96.69489	4	7
7	Kirkmans Cove	Richardson	40.1866072	-95.987402	6	11
8	Iron Horse	Pawnee	40.0475967	-96.098026	5	6
<b>TOTAL</b>					<b>26</b>	<b>43</b>

# NDEQ BeachWatch

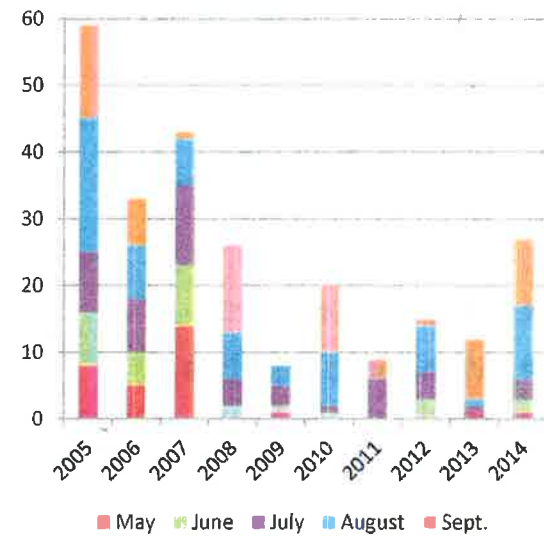
## Public Beach Monitoring Program



**Number of Samples by Year**



**E.coli Results by Year**



**Microcystin Results by Year**