

Big Blue River Compact – Water Quality Committee Meeting
5/10/2021 - 12:30-2:30 - via Zoom

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NDEE Updates

- Integrated Report (IR) – 2020 IR is under review by EPA R7. Maps and tables with specific impairments were shared and discussed. There are 101 stream segments in the basin in NE and 43 lakes. Of those, 33 stream segments are impaired and 30 lakes are impaired. Most common impairments include *E. coli* (recreation) and atrazine (aquatic life) in streams and total nitrogen, total phosphorus, and mercury (fish consumption advisor) in lakes.
- Total Maximum Daily Load (TMDL) – Approved TMDLs for *E. coli* and atrazine is most of the stream segments and a total phosphorus and sediment TMDL for Big Indian Lake.
- National Pollutant Discharge Elimination System (NPDES) permits – There are roughly 100 permitted facilities in the basin in NE including 12 Major Dischargers (>1 MGD flow).
- Section 319 (Nonpoint Source) activities – Three 9-element management plans and associated projects:
 - LBNRD - district-wide, accepted 9-element basin management plan in place since 2018. Priority areas where projects are either initiated or are ongoing include:
 - Crystal Lake, Ayr, NE - Serve as a watershed management demonstration site, focusing on NPS. Completed rehabilitation of Crystal Lake, including sediment removal, wetland development, reseeding, and park improvements.
 - Big Sandy Watershed - Currently an NWQI area. 319 and NRD funds will supplement cost-share provided through EQIP. Focus is on impairments for *E. coli* and Atrazine, with concurrent benefits of reducing soil and nutrient loss.
 - Vadose Zone Assessment (NRD-wide) - Follow up with vadose zone assessment after initial study was done approximately 5 years ago. Goal is to track nitrate improvement under various land use and conservation practices.
 - Rainwater Basins Wetland Renovation - Ducks Unlimited, in conjunction with RWBJV, is renovating 4 public wetlands including land treatment in the upland drainage area.
 - UBBNRD - district-wide, accepted 9-element watershed management plan and a Voluntary Integrated Management Plan (VIMP). Priority areas in the 9-element plan include Recharge Lake near York (impaired for nutrients) and the West Fork of the Big

Blue (impaired for Atrazine). Special emphasis for Public Outreach will be given to nitrate in groundwater, in particular, working with individual communities on addressing NPS pollution in Wellhead Protection Areas.

- UBBNRD is currently developing a project implementation plan for Beaver Creek and Recharge Lake watersheds. This included a recently hosted a open house in York to discuss the Water Quality Management Plan with Targeted Stakeholder groups.
- LBBNRD - 9-element basin management plan in place, effective 2013.
 - Turkey Creek – NWQI partnership with LBBNRD, NDEE, NRCS and the city of Wilber for Turkey Creek (impaired for Atrazine and E. coli) and City of Wilber's Wellhead Protection Area (groundwater nitrate).
 - LBBNRD is nearing the completion of a 319 project to rehabilitate Cub Creek 12A reservoir. The project is scheduled to be completed by August 2021.

Little Blue NRD updates

- NRCS BMPs for flood control (NRCS WFPO Project - Improve flood control and drainage to K-Dike to better protect the Village of Kenesaw)
- 319 – instream weirs to slow water down above Kenesaw & Juniata
- 319 Prairie Lake Project – in lake improvements and construction of a sediment basin above the lake
- Bowman Springs Ranch Site 3-D PL566 structure repair southeast of Hebron
- G&P renovation project at Alexandria State Lakes
- Plan to focus on WHP programs with communities

KDHE Updates

- 303(d) Listings
 - Nutrients (phosphorus), sediment, bacteria, atrazine in both Big and Little Blue watersheds at the state line; Copper impairment in the Little Blue watershed at the state line and above Tuttle Creek; biological impairments abound
 - Alachlor in Tuttle Creek no longer an impairment
- TP TMDLs for Big and Little Blue watersheds approved July 2020
 - ~ 80% of loads entering Tuttle Cr Reservoir via Big Blue R originate in Nebraska
- TMDLs developed to apply nutrient limits at discharging facilities versus adopting nutrient criteria
 - Kansas would like to discuss with Nebraska possible nutrient reduction from major dischargers
- 319 Program
 - Focusing on Atrazine, Bacteria, and sediment (from water storage standpoint)
 - Lots of work on soil health through 319 watershed plan as well as several external efforts to increase adoption including \$3.5M SRF loan for seeding equipment as well as a state funded Kansas Reservoir Protection Initiative for about \$0.5M per year for cover crop implementation.
 - Additionally, working with the Kansas Water Office, Kansas Department of Agriculture, Kansas Forest Service on streambank stabilization projects above the reservoir utilizing \$1.5M annually from Clean Water State Revolving Fund and state funding.
 - KS has a Kansas Basin Regional Advisory Committee that serves the Kansas Water Authority to guide planning and project priorities – Dan Howell. Dan sits on this committee as well as the Kansas RAC.

KWO update

- Water Injection Dredging potential project, Josh Olson
 - 46% of Tuttle Creek Storage lost to sediment
 - Previous projects to dredge other reservoirs both costly and limited in resiliency
 - WID never been attempted on a reservoir, Corps interested in piloting project at Tuttle Creek
 - Considerations remain as to downstream impacts, resiliency of recovered storage and costs

Producer update

- Discussion focused on focus on soil organic matter and water infiltration rate, Dan Howell. Potentially tie this to farm programs/payments.