

Meeting of the Advisory Committee for Root River One Watershed One Plan  
Tuesday, March 19, 2019, 10:00 AM – 12:30 PM  
Room 108, Fillmore County Office Building, 902 Houston St. NW, Preston, MN

### **Meeting Notes**

In attendance: Dan Wermager and Dave Walter (Root River SWCD), Adam Beilke (BWSR), David Schmidt (Nature Conservancy), Dean Thomas (Area Soil Health Technician), Jeff Weiss (DNR), Tim Connolly (US Fish and Wildlife Service-Winona), Justin Hanson (Mower SWCD), Daryl Buck (Winona SWCD), Jason Wetzel (Friends of the Root River), Emily Bartusek and Tiffany Schauls (MPCA), Sara West and Donna Rasmussen (Fillmore SWCD)

The meeting opened with introductions.

Tiffany Schauls and Emily Bartusek from MPCA provided preliminary results from the Cycle 2 monitoring in the Root River and an update on the Upper Iowa/Reno Stressor ID Report and WRAPS. There were 70 sites sampled in Cycle 2 compared to 110 in Cycle 1. Some streams deferred in Cycle 1, such as modified streams, were done in Cycle 2. Bee Creek is the only exceptional use stream in southeastern Minnesota. Others may be close so those could be focus areas for improvement in order to reach the exceptional use threshold. Due to high water, 20 sites were missed in 2018 which will be sampled this year, mainly in the South Fork. The official assessment will be completed in 2020. Preliminary results show a number of streams with potential improvement in either fish or bugs or both with a fewer number showing a potential decline. Improvement or decline were measured by a change of at least 15 points in the IBI scores up or down, respectively. There was discussion later about Rush Creek where a decline was seen despite stream habitat work being done there. The decline may not reflect a change in impairment status, however. There is a large acquisition in progress in Rush-Pine (~1000 acres) that could have a positive impact. Root River SWCD staff noted that the improvement seen in the lower end of Riceford Creek could be due to the number of stream revetment projects in that section of the watershed. Stressors in the South Fork are habitat and nitrate, so longitudinal data such as what is being gathered in Watson Creek might be useful. Cycle 2 stressor identification can be prioritized to focus on certain areas, such as the nearly/barely impaired streams or on protection, such as Forestville Creek or the long term biological monitoring sites done every year (e.g. Diamond Creek). In the Field to Stream Partnership watersheds, multi-parameter sondes can help fill data gaps, and biological monitoring is already being done at all the outlet sites.

Watson Creek had some additional assessment because it has so many impairments. Longitudinal data were collected using a portable nitrate probe and a secchi tube at 14 road crossing sites once a month throughout 2018. A data anomaly in March when nitrate data were much lower at several sites (overland flow was not a contributor to dilution) is thought to be due to snowmelt water flowing into sinkholes and through the shallow aquifer feeding the springs. Stagecoach Spring is the headwater for Watson. Baseflow nitrate concentrations are 13-14 ppm which drop to 8-9 ppm during rain events. Thunderhead Spring has the highest nitrate concentrations. The biggest variation in nitrate concentrations is seen in the tributary from the Fountain wastewater treatment plant. The lowest and least variable nitrate concentrations are found at the Ivy Road crossing closest to the confluence with the Root River demonstrating the dilution effect from the influx of less nitrate rich water from deeper aquifers. Watson's biological data showed improvement from Cycle 1 to Cycle 2 with all but one IBI score improving to go above the threshold for impairment in Cycle 2. Looking at the BMPs reported in eLINK, 69 BMPs were implemented from 2008 to 2017 accounting for 75% of the 91 BMPs installed from 2004 to 2017.

The Upper South Fork site also showed a marked improvement in the macroinvertebrate IBI score from 14.27 in 2004 to 47.72 in 2018. The land uses have not changed in the watershed, but the stream corridor changed from grass banks to tree and shrub growth creating a canopy and more diverse habitat. The change in habitat (e.g. additional woody debris, scouring due to down trees which exposes cobble) helped to improve the diversity of the bugs living in the stream. The eLINK report showed 22 BMPs installed from 2011 to 2017 out of 45 BMPs installed from 2004 to 2017.

The Upper Iowa/Mississippi-Reno Cycle 1 Intensive Watershed Monitoring was completed in 2015-2016. Eleven of 24 streams show impairments. Lake Louise was not assessed as a lake due to the short residence time of the water in the lake. Fish contaminants met the standard, and there were no drinking water impairments. The Stressor Identification Reports for both watersheds are online. In the Reno, the South Fork of Crooked Creek had

impairments due to temperature, DO, and eutrophication due to the reservoir. The lower end of Crooked Creek and Clear Creek had impairments due to habitat. Winnebago Creek has a TSS impairment. In the Upper Iowa, the western part has streams impaired due to habitat, flow alteration and nitrate. In the middle part, there is one impaired stream due to habitat and fish passage issues. In the eastern part, there is a TSS impairment. Nitrate (727 samples) and TSS data were shown that were collected from 2015 to 2017.

The WRAPS documents have more detailed information and maps which can be incorporated into the 1W1P, such as the impaired waters now identified in the Upper Iowa and Reno. HSPF modeling results will provide yields for TSS and nitrogen which can be used for reprioritizing in the 1W1P. The Cycle 2 Root River WRAPS will be completed in 2020-2021 in time for the five-year review/amendment of the 1W1P.

Nitrogen BMP Outreach Project – Sara West, Root River Nutrient Management Specialist: The project is set up to evaluate N BMPs and improve confidence in the U of M recommendations which ultimately are tied to the goals in the state's N Fertilizer Management Plan to reduce nitrate in groundwater. It is also important that the plot data is understood by the farmers so they will use the information. Each on-farm plot has three replicated rates for an alternative practice and three with the practices the farmer normally uses. Stabilizers and cover crops data were inconclusive. Sidedressing showed no difference in yields. The MRTN (maximum return to nitrogen) was in-line with the U of M recs. The plot data are used in the Iowa State University N rate calculator. Four U of M research plots are being used to answer the question whether higher rates are profitable. Four replications of 7 rates are set up on each plot. Three of the six sites that exceeded the recommended rates showed a corresponding increase in residual soil nitrate. The effects of extreme precipitation were a factor in 2018 on one site where 240# of N were applied without reaching the MRTN and without seeing an increase in residual soil nitrogen. The organic matter level in the soil could be another factor. The four-year study has shown that following the recommended rates does not decrease the amount of nitrogen stored in the soil, a common concern expressed by farmers. A summary report will be posted online by the end of this month.

WIPP – online survey Watershed Inventory Partner Projects update: The online map was shown which summarizes some of the information entered into the online survey. Links will be posted on the Fillmore SWCD site for the WIPP map and for the maps showing BMP implementation in the subwatersheds which are found on the MPCA Clean Water Accountability webpage.

Trout Unlimited funds, RCPP and Lessard-Sams easement opportunities: TU funding sources can provide 100% cost share for streambank projects that are under an angling easement. Streams without easements can be funded, but the landowner would need to pay a portion. Upland practices are also eligible for RCPP funds, such as bluff prairie restorations, that are within the TU priority areas.

#### Timeline and next meetings

- Policy Committee meeting will be after the legislative session when the next round of funding is known (Rm 108, Fillmore County Office Building). Adam reported that the Clean Water Council recommendation and the Governor's budget include \$29 million for 1W1P compared to \$9 million in the first round. This seems to indicate that funding levels will be about the same as the first round. The Cedar and Cannon 1W1Ps will be included in this round. Funds should be out by September/October this year, so it is time to start thinking about the use of the funds and if they should continue to be used in the same priority areas or if other areas should be added. It might be an opportune time to think about shared staff between the three southeastern MN watersheds.
- Planning Work Group: tentatively following next Policy Committee Mtg.
- Advisory Committee: Fall 2019

The meeting adjourned at 12:28 pm.