

MINUTES

November 14, 2019

A meeting of the Technical Advisory Committee (TAC) of the Shingle Creek and West Mississippi Watershed Management Commissions was called to order by Chairman Richard McCoy at 11:33 a.m., Thursday, November 14, 2019, at Edinburg USA, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present were: Mitch Robinson, Brooklyn Park; Todd Tuominen, Champlin; Mark Ray, Crystal; Derek Asche, Maple Grove; Elizabeth Stout, Minneapolis; Megan Hedstrom, New Hope; Amy Riegel, Plymouth; Richard McCoy, Robbinsdale; Ed Matthiesen and Brian Kallio, Wenck Associates, Inc.; and Judie Anderson, JASS.

Not represented: Brooklyn Center and Osseo.

Also present: Burt Orred, Jr., Crystal; Shahram Missaghi, Minneapolis; Harold E. Johnson, Osseo; and Marta Roser, Robbinsdale.

- I. Motion by Ray, second by Asche to **approve the agenda.** * *Motion carried unanimously.*
- II. Motion by Ray, second by Asche to **approve the minutes*** of the October 10, 2019 meeting. *Motion carried unanimously.*

[Robinson arrived 11:37 a.m., Tuominen at 11:39 a.m.]

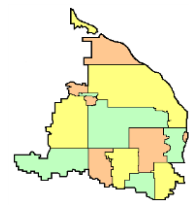
III. **SRP Reduction Application – 2019 Results.** * Kallio presented the results of the first year of the SRP Reduction Project. The SRP project is a Section 319-funded research project. Sarah Nalven made a presentation at the Commissions' regular July meeting about the project purpose and details about the project design. Kallio is the design engineer and devised the instrumentation installed to determine the effectiveness of the project. Nalven is heading up the monitoring portion of the project.

The SRP Reduction Project is testing the effectiveness of three different filter media at reducing soluble reactive phosphorus (SRP) in outflow from Wetland 639W. SRP is the form of dissolved phosphorus that is most readily available to plants such as algae.

Phase 1 of the project consisted of installing a three-compartment filter box at the overflow weir of Wetland 639W. Each compartment was filled with a different medium that is made to adsorb phosphorous.

The one year monitoring results have shown some positive results overall - some interesting and very encouraging results have occurred. One of the media is performing significantly less well than the other two. The wet summer posed some challenges for the monitoring but it is not known what effect the high flows had on the overall performance.

One interesting thing of note is that Iron Enhanced Sand, which some generally accepted literature says does poorly in saturated, low oxygen conditions is performing comparatively well even



though it has been completely saturated and the dissolved oxygen content has been very low for most of the summer.

When taking the volume of flow treated and phosphorous reduction into account, the load reduction can be estimated and one of the media provides a very reasonable cost per pound removed, while the worst-performing appears to be significantly more expensive per pound.

Monitoring conditions in 2019 have been very challenging and this is not an average water year. Most of the high flow at the overflow weir bypassed the filter box and thus was not treated. At this point it is unclear if these results are representative of how the media perform, or whether different results in a more average or even low-precipitation year may occur. Going through a winter season and freeze cycle may also affect the performance. The grant project calls for two more years of monitoring.

Kallio presented a more technical and design detail-oriented presentation at this meeting. He will make a presentation more focused on the results of the first year's monitoring to the Commissioners at their meeting following this one. Learn more at <http://www.shinglecreek.org/srp-reduction-project.html>

IV. Other Business.

A. The next Technical Advisory Committee meeting is tentatively scheduled for a date in January 2020.

B. The meeting was adjourned at 12:09 p.m.

Respectfully submitted,

A handwritten signature in black ink that reads "Judie A. Anderson". The signature is written in a cursive style.

Judie A. Anderson
Recording Secretary

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