

Notes: Wednesday, Oct 18, 2023

Badger Mill Creek Stakeholder Group Kick-off

Agenda, notes, and meeting materials at www.madsewer.org/bmc-plus/

Desired outcomes:

- Shared understanding of key background information related to the health and resilience of Badger Mill Creek
- Shared definition of “health and resilience” as it applies to Badger Mill Creek
- Shared understanding of information gathered (via survey) on draft project charter, draft community event concept outline, and process for meeting notes

Participants:

- Melissa Michaud, CARPC
- Jeremy Balousek, Dane County Land & Water Resources Dept.
- Joleen Stinson, Dane County Parks Division
- Ben Schulte, City of Fitchburg
- Brian Christian, Friends of Badger Mill Creek Environmental Corridor
- Pat Bergen, Friends of Badger Mill Creek Environmental Corridor
- Greg Fries, City of Madison
- Kathy Lake, Madison Metropolitan Sewerage District
- Martye Griffin, Madison Metropolitan Sewerage District
- Topf Wells, Trout Unlimited Southern Wisconsin Chapter
- Robert Bohanan, Upper Sugar River Watershed Association
- Mike Trotter, City of Verona
- Chris Barnes, Town of Verona
- David Rowe, WDNR
- Mike Sorge, WDNR
- Alison Lebwohl, Alison S. Lebwohl Consulting (facilitator)
- Mike Rupiper, EOR (facilitator)

Other Attendees:

- Laura Hicklin, Dane County Land & Water Resources Dept.
- Amanda Wegner, Madison Metropolitan Sewerage District
- Michael Mucha, Madison Metropolitan Sewerage District

Topic	<i>Decisions, information gathered, actions</i>
Welcome and check-in	<i>Each participant shared one word for how they're feeling as they arrived here today.</i>
Meeting Notes	<p><i>Participants reviewed and agreed on the following process for meeting notes.</i></p> <ol style="list-style-type: none"> 1. Facilitators (Alison & Mike) draft meeting note 2. Draft meeting notes are sent to participants for review (1 week) via email 3. Changes are reviewed and incorporated by Facilitators; conflicting requests are noted as such. 4. Participants can add clarifying or dissenting opinion to the notes (and it will be marked as such). <p>Meeting note process approved by the group.</p>
Fall Community Meeting	<p><i>Participant feedback on the proposed fall community meeting was discussed.</i></p> <p>The proposed fall community meeting will be TABLED until a better opportunity is identified. Information could also be gathered at the spring community meeting.</p>
Charter review	<p><i>Participants discussed additions and edits to the Deliverables in the Charter and Operating Agreements. This resulted in a lengthy discussion, particularly around the issues of trust and the decision by Madison Metropolitan Sewerage District (the District) to stop effluent flow into Badger Mill Creek.</i></p> <p>Operating agreements approved with REVISION noted below</p> <ul style="list-style-type: none"> • Removed: language shared ahead • Added: “Participants will work toward having a good working relationship with our organizations to achieve our shared goals about finding solutions involving MMSD’s million dollar offer to help with the health and resiliency of the Badger Mill Creek. To this end, we will work in earnest to try and find any and all solutions.” <p><i>These observations came from a discussion on deliverables. No change to deliverables.</i></p> <ul style="list-style-type: none"> • The purpose of this group is not to overturn the District’s decision to stop effluent flow into Badger Mill Creek • We will consider any projects or approaches that could improve the health and resilience of Badger Mill Creek • This process can include identifying data gaps. Proposed projects may include study or research projects to close these gaps.
About Health & Resilience of Badger Mill Creek	<p><i>Presentations and moderated Q&A</i></p> <p>Steve Gaffield, EOR, gave an overview of the Badger Mill Creek Hydrologic Assessment report (link to presentation).</p> <p>Dave Rowe, DNR, gave an overview of the Badger Mill Creek Trout Management timeline and history (link to presentation).</p>

	<p>Dave Rowe and Mike Sorge noted that without the current flow the segment of Badger Mill Creek from Lincoln Street upstream to the headwaters will be flow limited and likely change to a cool water or warm water forage fish system.</p> <p>Written questions were taken. The speakers' responses were given at the meeting and, due to time constraints, by email after the meeting. See attached Presentation Q & A document for the complete list of questions and responses.</p>
<p>Defining Health & Resilience for Badger Mill Creek</p>	<p>Each participant was asked to complete a worksheet with the following questions:</p> <ul style="list-style-type: none"> • What definition of health & resilience did the presentations suggest to you? • What words or phrases would you add or edit? • What else stood out for you? <p>The Defining Health & Resilience for Badger Mill Creek exercise will be continued at the next meeting.</p>
<p>Other noteworthy items</p>	<p><i>Noted past and present work (more information should be provided at a future meeting):</i></p> <ul style="list-style-type: none"> • Dane Co and City of Verona Habitat project completed on Badger Mill Creek • Upper Sugar River Watershed Association monitoring project (citizen science) underway now
<p>Action items</p>	<p>Facilitators:</p> <ul style="list-style-type: none"> • Type up and share notes with the group. • Incorporate decisions and discussions into charter and project planning as needed. <p>Stakeholder group participants:</p> <ul style="list-style-type: none"> • Review these notes and email Alison & Mike with corrections. • Complete and email Defining Health & Resilience for Badger Mill Creek exercise worksheet if you didn't have time at the meeting. • In order to maximize the value of our time together, all participants commit to doing advance work, including providing feedback through advance surveys.



Presentation Q & A
October 18, 2023 Badger Mill Creek Stakeholder Group

Our October 18, 2023, meeting featured two presenters.

- Steve Gaffield, EOR, gave an overview of the Badger Mill Creek Hydrologic Assessment report ([link to presentation](#)).
- Dave Rowe, DNR, gave an overview of the Badger Mill Creek Trout Management timeline and history ([link to presentation](#)).

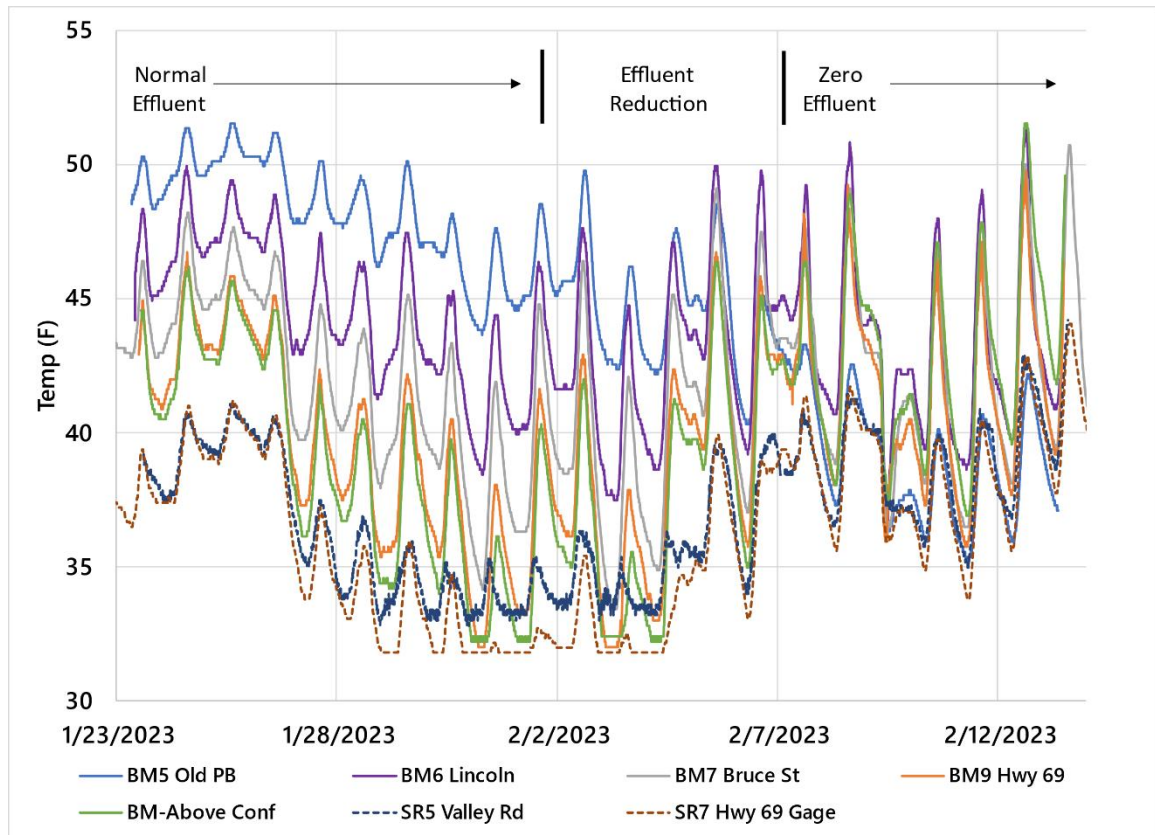
Below are the written questions and presenter responses from the October 18th Stakeholder Group presentations, including those that were responded to at the meeting.

1. Any temperature monitoring just downstream of BM5 / Old PB?

Steve: Yes, just upstream of the springs at Lincoln St.

Group: This is a data gap. Temperature monitoring between PB & the spring would be beneficial.

Steve: Temperature was recorded during the 2023 study at several sites, including BM5 / Old PB (upstream of where the big spring discharges into the creek) and at BM6 / Lincoln St. A plot of temperature data from all of the sites is included in the EOR April 24, 2023 memo on page 8 and is copied below.



2. A. From a fisheries perspective, how concerning is the change in baseflow for the fishery.

Dave: Referenced volume of habitat graph in handout. Noted that habitat suitability model could be used to determine desired baseflow goal for the fishery. Also Montgomery and Watson justification for the effluent discharge in 1995 was addressing low flow impairment of the stream.

B. Where along the reach of badger Mill Creek is the change in the baseflow most sensitive?

Dave: Upstream of Lincoln St. The stream gains baseflow as it travels downstream but there is a large spring downstream of Bruce Street. I think both the tech memo and the other work show that adding flow above that point is proportionally more of the flow so more important. Not sure I would use the word sensitive.

3. Comment on change in baseflow RE: fish health?

Steve: The EOR May 23, 2023 memo describes how changes in flow could increase stress on the fishery but does not quantify the net impact on fish health.

Dave: Not sure what is meant by fish health. Population health of brown trout and other cold and coolwater species benefits from increased and stable flow. Not sure about individual fish health but fish in stable environments are less stressed and usually healthier.

4. For Dave, what is CPUE?

Catch per Unit Effort. In this case the number of trout collected while electrofishing per mile of stream surveyed. That way we can compare surveys of different lengths.

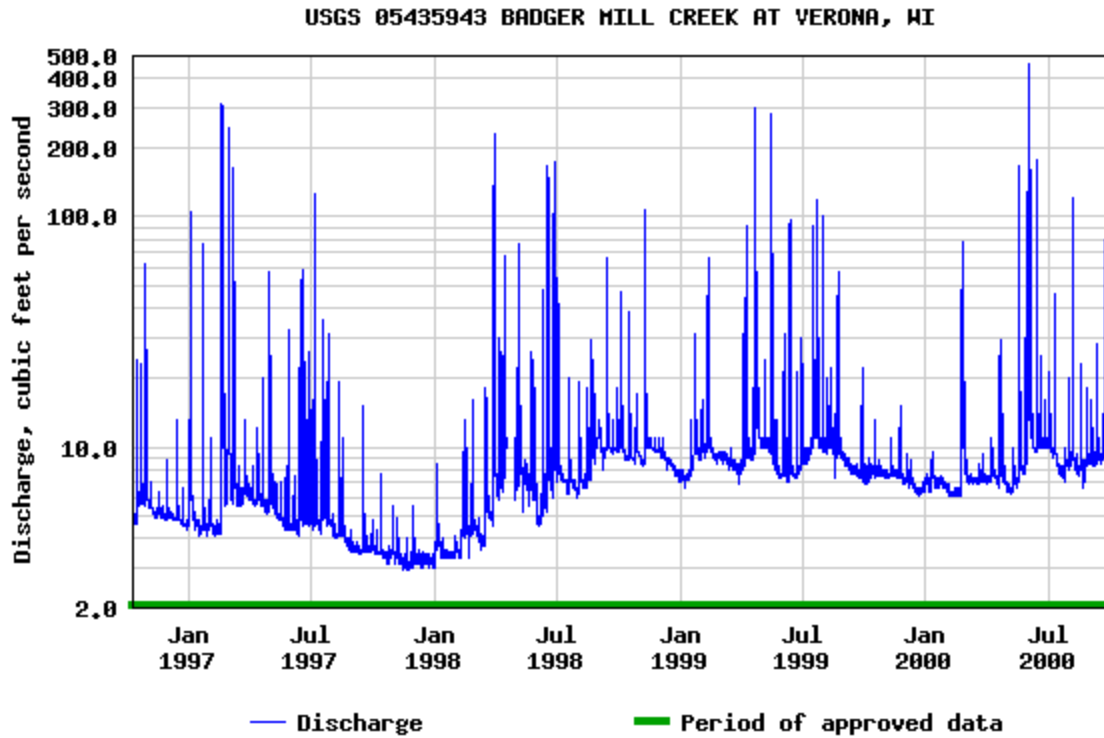
5. Why no discussion of changes in flow, velocity, obstruction of habitat on brown trout spawning, a key to current health?

Steve: The EOR study memos identify the potential for reduced velocities to lead to less suitable habitat in spawning areas, including more fine sedimentation on spawning beds (April 24, 2023 memo page 11 and May 23, 2023 memo page 5).

Dave: Didn't have time to get into those specifics of brown trout spawning. But I think the data shows that natural recruitment and reproduction have increased with increased flow. Increases in baseflow and with effluent.

6. A. Are there comparable data to the 2023 Jan – Feb study, 1996 – 1997 prior to effluent return?

Steve: The 1995 Montgomery-Watson study that Dave mentioned and that's available on the MMSD website has baseflow measurements at different locations of Badger Mill Creek (see page 2-12). Also, the USGS gage at Bruce St began measuring flow on October 11, 1996, before the effluent discharge began. The increase in flow due to the effluent appears to be visible on the hydrograph from the gage pasted below. [USGS Current Conditions for USGS 05435943 BADGER MILL CREEK AT VERONA, WI](#)



B. Climate projection slide increased annual streamflow, is this across all stream types?

Steve: I have not seen a breakdown by stream type for this projection from the Wisconsin Initiative of Climate Change Impacts or other sources. However, because the logic is that increased annual rainfall will lead to increased groundwater recharge, it makes sense that this projected increase in streamflow would apply to all types of groundwater-fed streams.

7. **Green Heon, egret fishing up to Garden Bridge. Trout up to Arbor Vitae Bridge and beyond**
(This was a statement, not a question, the speakers did not have anything to add).