

**HINKSON CREEK COLLABORATIVE ADAPTIVE MANAGEMENT
JOINT ACTION/SCIENCE TEAM Meeting Minutes
November 19, 2021**

9:00 am

Columbia Waste Water Treatment Plant
4900 Gillespie Bridge Rd
Columbia, MO
With Virtual Attendance Option

Action Team Members Present: Erin Keys, Jon White, Lynne Hooper, Tom Rattermann, Tom Wellman

Science Team Members Present: Rob Jacobson, Tim Rielley, Dave Michaelson, Barry Poulton, John Holmes,

Staff and Others Present: Lee White, Michele Woolbright, Joe Engeln, John Mehuys

1. **CALL TO ORDER** –The meeting was called to order at 9:05 am.
2. **APPROVAL OF AGENDA** – Approved.
3. **APPROVAL OF MINUTES FROM JULY MEETING** – Tabled until next meeting.
4. **AGENDA ITEMS**
 - **Best Management Practices (BMPs)**
 - **Science Team needs access to BMP GIS coverage from the MS4 partners along with a summary of how various types of BMPs treat stormwater runoff.**
 - MU, County and City Staff to determine what is needed to provide the information.
 - City Staff to provide summary sheets for various BMPs.
 - **Science Team would also like complete Stormwater GIS coverage.**
 - MU, County and City Staff to determine what is needed to provide the information.
 - **Uses for which the data may be useful were discussed.**
 - For instance, the mapping can be used to inform studies and modeling to determine how many and what types of BMPs would be required to have a beneficial effect on the stream.
 - Discussed modeling verses monitoring with respect to prioritizing studies.
 - Both things are needed; monitoring focuses on what’s happening now, modeling is important for long term in Hinkson Creek.
 - Table 4 in Science Strategy document prioritizes monitoring and modeling
 - **Monitoring Proposals/Approach**
 - **Useful to have an overarching approach to monitoring and studies, and encourage those studies that further CAM goals.**
 - Actions to encourage particular studies include provide funding, provide access to data, write recommendations and letters of support for the research to other funding entities.
 - Reach out to potential researchers to apprise them of needs for Hinkson research.
 - Possibly require a license to conduct research in the Hinkson watershed.

- **Notice of upcoming BMP installations by the MS4 partners would be useful for determining if they should be monitored and studied.**
- **Science Team Replacement Members**
(From CAM agreement, Science Team is to have not more than 9 people with science backgrounds, who are not holding public office.)
 - Several people have left the team or soon will be.
 - Some retiring members may be willing to sit in as needed.
 - The need for various expertise was discussed, i.e. stormwater BMPs, invertebrates, modeling, forestry, biology, behavioral economics, science communication, etc.
 - MS4 partners will try to think of people/specialties to recommend.
 - Boone County will place the issue on the Stakeholder agenda to see if they have recommendations.
- **Recent Ohio EPA report on effects of chlorides and sulfates on macroinvertebrates**
(Gist of article is that chloride and sulfate concentrations lower than current standards are damaging to macroinvertebrates.)
 - Concentrations noted by the study (as low as 52mg/L to be damaging may persist in Hinkson throughout the year.
 - Group discussed doing lab exposure studies as part of CAM.
 - Such studies are low on EPA's priorities.
 - The types of invertebrates used are important – some studies use tolerant bugs.
 - Longer than typical periods of study should be done to tease out effects on things like effects on fertility and offspring.
 - Such studies can be difficult/expensive.
 - Results of such a study may not lead to a state or federal standard – but could be useful for improving invertebrate numbers in Hinkson.
 - Current state water quality regs limit chronic chloride levels to 230mg/L – the study suggests that chronic levels of 52mg/L are damaging
- **Chloride Task Force**
 - Michele has been working on goals, timeline and milestones for the proposed task force, which are important to keep the group on task and working toward recommendations in a timely fashion.
 - Michele to formulate proposed groups or categories of chloride stakeholders who should be invited to the task force
 - Will send proposed stakeholder categories along with the goals and milestones to the Action and Science Teams in December for review and comments.
- **USGS Sampling – Should be ready to begin by spring of 2022.**
- **Hinkson Creek at Clear Creek Foremain Stream Stabilization Project**
 - Tom gave progress update.
 - Rob suggested photo monitoring the project with images before and for several years after the project to determine if the stabilization goals were met.
 - Could also measure pools.
 - Drone footage on repeatable flight path may be best.

- Tom to send IP meeting invitation to CAM groups.
 - **Lidar analysis of streambank erosion along Hinkson**
 - Rob presented initial work that he and Boone County GIS have collaborated on.
 - Findings suggest in-stream sediment production may be significant.
 - Next study topics:
 - Uncertainty analysis around the non-detect range.
 - Where are erosion, deposition, and net change located in watershed?
 - How do those sites compare to land uses, stream power, etc?
 - Targeting causes and stabilization solutions.
5. **ADJOURN – Meeting adjourned 11:05 a.m.**