Project Update:
Badger Mill Creek Phosphorus Compliance and Next Steps

Commission Meeting
October 13, 2022
Badger Mill Creek Phosphorus Compliance

Simplified: PLUS
**Project PLUS: Phosphorus Limits and Updated Solutions**

**Goals:**
- Achieve phosphorus compliance standards.
- Minimize harm to the biology of the stream.
- Maintain a fiscal responsibility to ratepayers and owner communities.
**PLUS Timeline**

- **3-31-2021** Compliance Alternatives Status update
  - Complete

- **3-31-2022** Preliminary Compliance Alternatives Plan, if AM or WQT are intended, the plan must note this.

- **3-31-2023** Final Compliance Alternatives Plan, including Watershed AM Request, if desired approach

- **3-31-2024** Progress Report on Plans & Specifications due

- **3-31-2025** Unless AM or WQT, Final Construction Plans due

- **9-30-2025** Treatment Plant Upgrade initiated, if selected alternative.

- **9-30-2026** Construction Upgrade Progress report #1

- **9-30-2027** Construction Upgrade Progress Report #2

- **8/31/2028** Construction Complete

- **9/30/2028** Achieve Compliance

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Madison Metropolitan Sewerage District
Update

• Working to answer Commission’s questions
• Many meetings and discussions with stakeholders and regulators
• Continuing to assess the viability of possible compliance alternatives:
  • Adaptive management has been eliminated
  • Water quality trading appears less viable
  • Tertiary treatment is being reassessed
Why adaptive management has been eliminated

- Adaptive management in BMC HUC 12 requires more pounds than trading but success is only achieved if in-stream water quality meets 0.075 at the end of the project. This increases the District’s risk.

- Adaptive management would need to account for >24,000 pounds if expanded to Upper Sugar River and BMC HUC 12’s where non-point phosphorus reduction projects are more prevalent.
  - For perspective, the District discharges ~2,200 pounds of excess phosphorus each year.

- Without a TMDL or other permitted partners, we are eliminating this option.
Why water quality trading is less probable

- District would need to offset the ~2,200 pounds of excess phosphorus each year.
- DNR stated that Badger Mill Creek HUC 12 will be the only trading area.
- Badger Mill Creek HUC 12 has very limited acreage available for non-point trades.
- Point-to-point trades and non-point trades in BMC HUC 12 are being evaluated but to date these appear limited, non-permanent and expensive
- Less likely as a final option due to lack of regulatory flexibility
Remaining Option: Modify BMC flow

• Phosphorus transfers to Badfish Creek with flow

• Recommendation from the energy study and appears fiscally responsible.

• Badfish Creek appears to have capacity to take the remaining 8% of flow, and Yahara WINS IGA would allow it. Other permit implications are being assessed.

• Stakeholders want to understand biological impacts. We are currently working with DNR, USGS, hydrogeologists to assess.
Treatment Opportunities and Challenges

• Tertiary treatment would add additional treatment at Nine Springs to remove required phosphorus.
• Working to assess logistical and process information, costs, energy estimates and timelines.
• Challenges:
  • Current cost opinions show this to have significant ratepayer impact
  • BMC receives 8% of District effluent and concerns have been raised over equitability and fiscal responsibility of the impact on rates.
  • This treatment only addresses phosphorus compliance and not other parameters or the impact of future regulation/water quality standards.
Community Engagement and Outreach

- Continuing to have conversations to understand all interests around this topic.
- Specific engagement for groups/individuals
- Started engagement late August with goal to be complete over the winter 2022/2023
- Tentatively planning public information meeting in November.
Next Steps

• Continue stakeholder engagement

• Continue to assess, incorporate learnings and refine potential compliance options

• Return to Commission with a preferred alternative

• Submit Final Compliance Option Report to DNR by March 31, 2023
Questions?