

From: Gielniewski, Margaret <gielniewski.margaret@epa.gov>
Sent: Thursday, October 12, 2017 11:13 AM
To: Valentin, Pablo; Olson, Beth J - DNR; Jay Grosskopf; Jeffrey Lawson; DuFresne, Kristin I - DNR; Paulson.Robert; Jennifer Knoepfle; 'Regina.Bayer@CH2M.com'; Bougie, Cheryl - DNR; Fitzpatrick, William - DNR; Fassbender, Judy L - DNR; Adler, Kevin; Brian F Bartoszek (BFBartoszek@integrysgroup.com); Killian, James - DNR; Kincaid, Gary W - DNR; Larry DeBruin; George Berken; Gawronski, Troy A; Coleman, Bill; Heath, Bryan; Lysne, Bjorn; Willant, George
Subject: WPSC Green Bay MGP Sediment Project Meeting Minutes for October 3, 2017
Attachments: GB_MGP_and_Fox_River_Cleanup_Minutes_10.03.2017.pdf; GB MGP and Fox River Cleanup Agenda 10.17.2017.docx

Hello Folks,

Please find the meeting minutes for October 3 attached.

Please find the agenda for the October 17 meeting, also attached. If there are additional items for discussions, please advise and I'll add them to the agenda.

Let me know if you have any comments or questions.

Best regards,
Margaret

WPSC Green Bay MGP and Fox River Sediment Cleanup Project

MEETING MINUTES for October 3, 2017

1. Role Call.

EPA: Margaret Gielniewski; CH2M: Jennifer Knoepfle, Gina Bayer; WDNR: Kristin DuFresne, Cheryl Bougie, Bill Fitzpatrick, Jim Killian, Gary Kincaid; WPSC: Bob Paulson, Brian Bartoszek; NRT: Jennifer Hagen, Tim Kushman; Tt: George Willant, Bjorn Lysne, Bill Coleman; NCR: Bryan Heath; LLC Jeff Lawson

2. Update on NAPL Mobility/Solubility Testing. (See NAPL Mobility Assessment Attachment)

a. Summary of approaches and sampling schedule.

1. Ebullition (vapor).

- WPSC discovered their model missed a line of cores, and has some inconsistencies that need to be fixed above the clay layer. They will provide 3-D model by October 16 (prior to next meeting).
- WPSC and Tt to inform EPA and DNR of proposed sample locations and sampling dates.
 - Sampling will begin within the next two weeks.
- Sample locations to be identified for North and South Focus Areas.
- NAPL mobility testing sampling and analysis approach to be consistent with the South Branch of the Chicago River, with a focus on best management practices outlined in the attached NAPL Mobility Assessment Memo, and following Electric Power and Research Institute's (EPRI's) Generic Work Plan (citation included in attached memo).
 - Identification and sampling of areas that represent a range of DNAPL pore saturations to have a more complete mobility assessment.
 - In North Focus Area evaluate soft sediment and clay.
 - In South Focus Area evaluate DNAPL in clay and river bank/near shore sediment.
- WPSC noted staining does not correlate with mobility. S. Branch and Sheboygan figure on John Kern stats. to predict concentrations/mobility from staining and oil wetting. WPSC needs to model uncertainty since we have limitations on how we are collecting data.
- Re: non-clay sample mobility
 - Take into account fissures for core seams bounded by clay.
 - Bank and soft sediment (ebullition potential).
- Sonic drilling approach does not allow for borehole abandonment with bentonite.
- Reporting: EPA and DNR need robust report, evaluating multiple scenarios and remedial alternatives, to base decision upon. This report will be available to the public to show how conclusions were reached.

3. South Focus Area

a. Integration of upland data with riverine data.

i. Updated CSM.

- Text box CSM exists in the RI sampling plan. WPSC will provide updated pictorial CSM for both the South and North focus areas by October 16, incorporating all the new data.
- b. Refined calculation of what will be removed and what will be left behind (in clay and soft sediment).
 - i. Data for steeper slope cuts.
- WPSC to provide 3-D model by October 16 (prior to next meeting), which will inform refined residual calculations and selection of DNAPL mobility sample locations.
- c. Analysis of Remedial Alternatives.
 - i. Use of different dredging technologies (applying a clam-shell to get NAPL below clay layers; use of vic-vac; etc.).
 - ii. Active containment of deeper NAPL (amended covers).
 - iii. Need NAPL mobility data to better define caps/covers.
 - iv. TT indicated the in-river containment sheet pile would need to be ordered by April 2018.
 - v. Kincaid stated the Floodplain Engineer spoke with the City of Green Bay regarding floodplain analysis with respect to in-river sheet pile.
 - 1. Floodplain Engineer did not see any significant impact on flood elevations with respect to in-river sheet pile.
 - 2. Still need a response from the City of Green Bay.
- See follow-up below. Same requirements for both focus areas.
- 4. North Focus Area
 - a. GP wall structural data.
 - i. Can we dredge deeper and back-fill as we go (at the “newer wall area”?)
 - ii. Cost of king-piles/new wall to replace “weaker” wall.
 - b. Analysis of Remedial Alternatives.
 - i. Cost of bulkhead wall reinforcement options (see above).
 - ii. Cost and benefits of various capping alternatives.
 - 1. Amended caps.
 - a. What will the loading/sequestration capacity be?
 - b. Cost of financial assurance for long-term maintenance and monitoring.
 - c. Residual dredging and residual management
- Bryan Heath suggested using a feasibility style approach for alternatives in the South and North focus area which could include evaluation against EPA’s Nine Criteria.
 - Alternatives to include must span the gamut:
 - Structurally supporting the bulkhead wall for complete contaminated sediment removal (North Focus Area).
 - Various types of dredging technologies implemented including “vic-vac”; using clam-shell dredge head to access NAPL in clay (N and S Focus Areas).

- Use of amended covers (GAC in sand) to address S. Focus Area.
- Various caps to address N. Focus Area. Including amended caps.
- Financial assurance and long-term monitoring costs.
 - DNR will provide State Statute language ASAP
 - Wis. Stats. 292.12(2)(d)(2)

5. Deliverables:

- a. Proposed schedule of deliverables.
 - i. DNAPL mobility core collection (N & S focus area sediment and S focus area shoreline) to be conducted following PCB sampling in Green Bay using same sonic drill rig, likely the second week of November. DNAPL mobility cores may be collected sooner, and with short notice, should Green Bay sampling activities be suspended for weather or lake conditions. Sampling may be conducted sooner if alternate rig can be secured. Anticipate 4 to 5 days to collect necessary DNAPL mobility cores.
 - ii. DNAPL mobility testing turn-around time is 6 to 8 weeks.
 - iii. Data Report summarizing WPSC 2015 sampling, 2016 DNAPL delineation sampling and DNAPL mobility testing will be submitted within 30 days of completing DNAPL mobility testing.
 - iv. Remedial options analysis and confirmation sampling approach to be submitted contemporaneously with Data Report
- b. Work Plan Update. **DUE before October 27, 2017.**
 - i. Outstanding questions/clarifications?
 - ii. Include confirmation sampling details
 - It will provide Work Plan update on October 30, 2017.
 - Work Plan update to include 2016 confirmation sampling details.
 - 2016 agreement, prior to high density DNAPL delineation was 60-foot grid; top six inches only; etc.

6. Follow-up

- a. List of action items: See highlights.
- b. Next meeting: **October 17, 2017. 2:30pm CST**

Conference Line 5: 866-299-3188 Code: 222-7581

AGENDA

1. Roll Call.
2. Update on NAPL Mobility/Solubility Testing.
 - a. Sampling schedule and locations.
 - b. Review 3-D Model.
3. South Focus Area
 - a. Integration of upland data with riverine data.
 - i. Review updated CSM.
4. North Focus Area
 - a. Analysis of Remedial Alternatives.
 - i. Cost of bulkhead wall reinforcement options.
 - ii. Residual dredging and residual management.
 - iii. Cost and benefits of various capping alternatives.
 1. Amended caps.
 - a. What will the load capacity be?
 - b. Cost of financial assurance for long-term.
5. Deliverables Progress:
 - a. Work Plan. **DUE** before/on October 30, 2017.
 - b. Preliminary sample results. **DUE** ASAP (end of November?).
 - c. Assembled alternatives for each focus area (an EE/CA-like document).
DUE ASAP (end of December?).
6. Follow-up
 - a. List of action items.
 - b. Next meeting: **October 31, 2017.** 2:30pm CST