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NATHANIEL W. KARNS, A.I.C.P.
Executive Director

AGENDA

Rest of River Municipal Committee
September 14, 2017, 9:00 a.m.
Lee Town Hall

1. Introductions
2. Review of minutes of August 25, 2017 meeting
3. GE Uncontested and Severable Permit Conditions
 - Conference call with Skeo Solutions on Baseline Monitoring Plan
 - Formalize comments for submittal to EPA
4. Executive Session
5. Adjournment

City and Town Clerks: Please post this notice pursuant to M.G.L. Chapter 39, Section 23B.

Please Note: In the case of inclement weather on the day of the meeting, please call BRPC at 413-442-1521, ext. 15 to confirm if the meeting is still being held.

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Meeting Minutes

Rest of River Municipal Committee September 14, 2017, Lee Town Hall

1. Introductions. The meeting opened at 9:06 a.m. Attending the session were the following Committee members:

Pat Carlino, Lee Select Board
Christopher Ketchen, Lee Chief Administrative Officer & Lenox Town Manager
Christopher Rembold, Great Barrington Planner
Rene Wood, Sheffield Representative

Others present:

Terrie Boguski, Skeo Solutions (via conference call)
Lauren Gaherty, BRPC
Nat Karns, BRPC
Jim McGrath, Pittsfield Park, Open Space, and Nat. Res. Program Manager
Kirby Webster, Skeo Solutions (via conference call)

2. Review of minutes of August 25, 2017 meeting. Motion to accept by P. Carlino, seconded by C. Rembold. N. Karns noted a few typographic errors and gave these to L. Gaherty. R. Wood clarified that in May the Town of Sheffield did not allocate funds for Rest of River legal fees in FY 18, and therefore the words “did not allocate” should replace the words “would not be allocating” in the fourth sentence of the first full paragraph on p. 3 of the minutes. P. Carlino and C. Rembold agreed to change their motion to accept the minutes as amended. Minutes unanimously accepted as amended.

3. GE Uncontested & Severable Permit Conditions. The Committee discussed the draft comments to EPA about GE’s proposed Baseline Monitoring Plan (BMP), which BRPC staff had prepared with input from R. Wood and Skeo Solutions, the Committee’s consultant. R. Wood has offered comments to the draft before the Committee, suggesting putting the main point or opposition up front in each paragraph and strengthening the wording from language like “it would be helpful” to “it is necessary.” She feels we should speak up and say what we want. She gave her comments to L. Gaherty to consider incorporating.

L. Gaherty told the Committee that the soft language came from Skeo Solution, which drafted their comments after reviewing the BMP and BRPC and R. Wood’s comments. They did respond to each of

BRPC and Woods' comments. L. Gaherty suggested the Committee ask Skeo why their language was soft, as they are very familiar with how the comment process works; perhaps there was a reason for the soft language. R. Wood noted that Skeo's comments were in line with those drafted by she and BRPC, and that they also brought in some interesting data and references that are helpful. Skeo often responded to our draft comments by saying "good point," which was reassuring that we were on the right track with our concerns.

N. Karns shared his belief that since the last water quality testing occurred 15+ years ago, and that there has been no cleanup of Rest of River since that time, that essentially we have experienced 15+ years of natural recovery. As such, it would seem to be important to collect current data and analyze that against historic data to see if natural recovery is actually occurring as predicted. If not, should they consider recalibrating their models? R. Wood noted that we do say this in our comments, but not enough, and that it should be emphasized more in our final comments.

T. Boguski and K. Webster joined the meeting via phone conference at 9:25 a.m. The discussion turned immediately to the draft comments. T. Boguski agreed with N. Karns that that the BMP should call for comparing past historical data against the new data collected during the baseline, with the intent of seeing if natural recovery had occurred since the last round of testing. N. Karns asked Skeo staff why the tone of their comments was so soft, being often in the form of a question. The Committee feels that they should be more direct in their comments as they had in the past. T. Boguski responded that Skeo's role is not be an advocate of one side or another, but she encouraged the Committee to strengthen their language in areas where they feel strongly about a point. She did note that making suggestions can be helpful to EPA when they are in negotiations with the responsible party, and where there is real concern the stronger tone can be more helpful to EPA. She suggested a firm but not accusatory tone would be most helpful to EPA as they review proposed plans by GE.

L. Gaherty raised the issue of a complete lack of sampling in backwaters and floodplain. She noted that GE's Scope of Work does call for a Pre-design Investigation Plan for floodplain – might this be a BMP-type plan for floodplain? T. Boguski responded that she didn't think so. She does not know why a baseline for floodplain and backwaters aren't being proposed. She stated that if the pre-design investigation is to serve as a baseline, or if they propose that baseline isn't needed for floodplain and backwaters, they need to explain clearly what their reasoning is. She stated that there may be a valid reason why they have chosen to design their BMP this way, such as possibly that these areas are contested, but she agreed we were right to ask about the omission.

T. Boguski had raised in her comments that fish oils and fatty tissues would likely have higher PCB levels than fish fillets. L. Gaherty if all past fish sampling had consistently tested fillets, how relevant is it to ask for sampling of oils and tissue? T. Boguski responded that fillets are often the target for recreational fishing because that is the part kept by anglers. FDA levels look at all fish products produced as part of commercial fishing, which uses all part of the fish for different market places. N. Karns noted that Skeo raised the issue that the PCB target levels in fish in the Hudson River cleanup is much stricter than the Housatonic, and asked if we could press for a stronger standard. T. Boguski responded that if anglers eat the whole fish, including the fatty tissues and organs, then their doses of PCBs will generally be higher than just eating the fillets. She said EPA is aware that the levels would be higher for whole-fish consumption as opposed to just fillet consumption. We

could ask EPA that if the 1.5 ppm is the short term standard for fillets, does EPA know what the levels would be for whole-fish consumption – would it exceed the FDA level?

L. Gaherty noted that the Modified Permit required that GE monitoring water, sediment, fish, ducks and “other data,” and that other data might be an opening to require more data collection. She asked if Skeo had other data that in their experience might be good to gather in the baseline. Air quality or different types of sediment? T. Boguski did not see air quality with PCBs as an issue, unless there was active dredging. C. Ketchen stated that he believes that baseline air quality is a real concern and we should raise it. T. Bugoski responded that commenting on air monitoring procedures will be more appropriate just prior to construction – air flows so freely that monitoring it two years prior to construction would not be all that useful as PCBs are not highly volatile compounds. It is more useful to protect workers and nearby residents for health reasons during construction activities. She did suggest that if other animals along the river are widely eaten by tribal or subsistence populations, such as frogs, it may be useful to ask for that. But if the human health risk assessment already looked at this issue and didn’t consider frogs a high risk then it would be difficult. She suggested we look back at the human health risk assessment before we raise the issue.

T. Bugoski agreed that duck tissue should be tested, especially if there are some resident ducks or geese populations.

The discussion turned to eating vegetation in the floodplain. People forage for fiddleheads, mushrooms and ramps, and there are commercial farms along the river, especially in Sheffield. These are more reasons for pushing for floodplain soil sampling.

Skeo staff stated that they thought the Committee’s draft comments were well-raised. T. Boguski did have a question about one comment at 4.1.2. Her understanding is that there will be monthly sampling two full years prior to construction, but we had it as quarterly. L. Gaherty will check this for accuracy.

Skeo staff left the meeting at 10:05 a.m.

C. Rembold and R. Wood suggested that BRPC go through the comments and strengthen them. C. Rembold did note that on page three a few comments were out of order, so these should be checked to make sure the numbers and comments are in the right place. N. Karns would work with L. Gaherty to work on the language about the importance of historical data in assessing the level of natural recovery, and checking these against the computer models. If the data shows that the models are wrong, then the whole cleanup strategy could be wrong. It was agreed that this issue would be raised strongly and right up front in the comments so that it stands out. It was also agreed that the issue of air monitoring should be raised. It might be that we agree that it is premature at this time, but we raise the issue of worker and residents’ health.

It was agreed that the Committee needs to raise the issue of the higher levels of PCBs being allowed along the Rest of River, especially when compared to the Hudson and the FDA. The present warnings do not go far enough to let people know of the very high levels and the dangers of eating the fish, particularly the whole fish. This issue should be raised when plans for institutional controls

are being designed in the future.

It was agreed that the Committee's comments are to be widely distributed to the federal and state delegation, commissioners of DEP and F&G, and attorney general. The comments will go out from the Rest of River Committee, with the five-town logo atop the letter as usual. The press should also be copied, perhaps with a press release and a note that the Committee is staying engaged in the cleanup process.

P. Carlino made the motion to accept the comments as amended and submit them to the EPA, seconded by R. Wood.

4. **Executive Session.** N. Karns requested a motion to go into Executive Session to review and approve minutes from the previous Executive Session, and public discussion of such minutes could have a detrimental impact on ongoing litigation with EPA and/or GE. We will not reconvene from Executive Session into Regular Session. P. Carlino made the motion to go into Executive Session as requested by N. Karns and not to return regular session, seconded by R. Wood; motion carried unanimously and the regular session adjourned at 10:26 a.m. Roll call vote: P. Carlino, Lee, AYE; C. Ketchen, Lenox, AYE; R. Wood, Sheffield, AYE; C. Rembold, Great Barrington, AYE.

5. **Adjournment.** The meeting adjourned at 10:26 a.m.

Meeting Materials:

- Meeting Agenda 9-14-17
- Meeting Minutes of 8-25-17
- Housatonic Rest of River Municipal Committee Budget draft comments on the *Housatonic River - Rest of River Baseline Monitoring Plan*

Respectfully submitted,
Lauren Gaherty, BRPC

INSERT LOGO HERE

September 15, 2017

Dean Tagliaferro, EPA Project Manager
GE-Pittsfield/Housatonic River Site
Boston, MA
Submitted via email to R1Housatonic@epa.gov

Re: comment on the *Housatonic River – Rest of River Baseline Monitoring Plan*

Dear Dean:

The Housatonic Rest of River Municipal Committee hereby submits the following comments on the *Housatonic River – Rest of River Baseline Monitoring Plan* (Anchor GEA, LLC, June 2017), hereafter referred to as the BMP. It is imperative that the BMP be done accurately and collect useable, as well as useful, data for on-going monitoring during remediation and post-remediation. The baseline monitoring must be set up correctly and comprehensively. If designed correctly the BMP has the opportunity of informing both the EPA and GE on remediation activities, including MNR, and equally important learn more about PCB movements before, during and after remediation.

We do not believe that sampling program proposed in the BMP will adequately establish a comprehensive baseline upon which to judge future remediation compliance. The two main concerns are that 1) the BMP does not discuss baseline data collection for the backwaters or the floodplain and 2) it does not recognize nor incorporate the robust set of data that has been collected along the river corridor since the 1990s. There does not appear to have been widespread data collection conducted in the Rest of River for 15 or more years, and there have been no cleanup activities conducted in this stretch of the river during that time period. Outside of potential downstream transport of PCBs from cleanup activities on the GE complex or the first two miles of the river, the Rest of River has effectively experienced 15 years of natural recovery. Collecting a new, comprehensive set of data, incorporating historical sampling sites and establishing new sites as necessary to meet the performance standards of the Modified Permit, affords the EPA, the states and GE the opportunity to determine PCB movement and deposition during this time and indicate future potential for MNR.

Because PCBs adhere so readily to sediment, we believe that the baseline sampling program for PCBs in the river system should be robust and comprehensively cover the river bottom, banks, backwaters and impoundments. Since the 1990s the Housatonic River watershed has experienced hurricanes, tropical storms and several severe storm events. PCB transport via sediment movement during these high flow events and during regular spring melt events may very likely vary significantly from that of the 1990s. We therefore hope that the EPA and the Commonwealth require a widespread and dense baseline sediment sampling program to clearly portray PCB concentrations throughout Rest of River. The baseline sampling of only MNR reaches is inadequate. Sampling should be done at all previously sampled sites as closely to the original location as possible.

It would be useful to have more information on the data collection efforts to date rather than just have them referred to in the proposed BMP in a limited number of summary charts. Also, for each sampling media, it would be extremely helpful to show historic sample sites overlaid with proposed sites to aid reviewers in understanding proposed changes.

In Section 1 Introduction

It would be helpful to have a summary table showing the Modified Permit's performance standards for the media to be monitored: surface water, sediment, fish fillet and duck breast tissue. For fish and duck breast it would also be helpful to show the EPA's or FDA's levels for unrestricted human consumption.

The BMP describes the Housatonic Rest of River as consisting of the river, its backwaters and floodplain downstream of the confluence. While the BMP discusses baseline sampling in the Housatonic River, it does not discuss any sampling of water, sediment or biota in backwaters nor soil of floodplain. This omission must be explained with a rationale for why these areas are not included in the BMP. The Rest of River Municipal Committee requests that the Coves in Lee be called out as specific areas for monitoring and possible cleanup activities.

Section 3 Baseline Monitoring Program Objectives and Design

The last paragraph of Section 3.2 states that the design of the BMP has taken into consideration the potential need for characterization of baseline conditions in setting notification and action levels. What components of the BMP design specifically address this potential need?

Page 8 of the BMP states refers to the numerous sets of data that have been collected by GE, EPA and the states over the last several decades, and that the design of the BMP "has taken past and current monitoring activities locations and sampling locations into consideration." However, further BMP sections expressly propose to discard several sets of data. The BMP does not give adequate rationale for these decisions.

Section 4 Summary of Historical Monitoring Data

4.1.1 The BMP maps with proposed sites for each media should also include historic sampling sites. This allows reviewers to more clearly understand where the proposed discontinued sites are in relation to those being proposed for the baseline inventory.

4.1.1 We disagree with discontinuing any existing Rest of River sampling sites. Historic trends for discrete sections of the river will be all the more important as construction commences, with the impacts being felt immediately downstream of each site during the construction period.

4.1.1 We oppose the discarding of archived samples from the December 2016 through May 2017 sampling period. Since the minimum detection limit for the BMP should be set extremely low to capture slight fluctuations in concentrations, this would be an opportune time to analyze the archived samples and add them to the historical data sets.

4.1.2 It appears that the Baseline Monitoring Program will begin two full years prior to construction (p. 23) and will occur quarterly. We strongly encourage continuance of monthly sampling throughout the two full years prior to construction. To establish a comprehensive baseline sampling will require an

even more rigorous, not less rigorous, sampling regime than the existing program. We disagree that what appears to be seasonal trends is sufficient rationale for reducing sampling frequency.

4.1.2 Footnote b of Table 4-2 states that a statistical test (Grubbs Test) of the data for Schweitzer Bridge indicated that the maximum value at each location was a statistical outlier and was removed from the dataset used to calculate average and median values. We are not convinced that the maximum PCB concentration value should automatically be considered an outlier and therefore removed from the data sets for the calculation of the average and median concentrations. Removing the highest PCB concentration readings could inappropriately skew the average and median readings downward. More importantly the maximum concentration occurrences should be reviewed to identify possible trends in PCB transport, such as during high flow events. An explanation of why an outlier was anticipated, the necessity of the Grubbs Test, and how it affects average and median values should be thoroughly explained in the BMP. Was the Grubbs Test used to look for other outliers in the same datasets?

4.2.2 The BMP states that the short-term goal for PCBs in fish is to achieve a total PCB concentration in adult fish fillets of 1.5 milligrams per kilogram (mg/kg). The long-term goal is 0.064 mg/kg in fish fillets in Massachusetts and 0.00018 mg/kg in fish fillets in Connecticut. According to ATSDR's fact sheet (<https://www.atsdr.cdc.gov/phs/phs.asp?id=139&tid=26>), the Food and Drug Administration (FDA) has set residue limits for PCBs in various foods to protect people from harmful health effects. FDA-required limits include 2 mg/kg in fish and shellfish (edible products, including fish oils). As PCBs accumulate in fatty tissues, it is expected that fish oils and fatty tissues would contain higher levels of PCBs than fillets. We request that the BMP establish a monitoring program that includes analysis fish oils and/or fatty tissue sampling. Section II.B.4.b.(1)(a) of the Modified Permit seems to allow this additional sampling, stating that:

Prior to the commencement of construction activities, PCB data in surface water, sediment, and biota **(and other data)** shall be collected to serve as a baseline for the evaluation of the potential impacts of the Corrective Measures and project operations as well as to inform model parameterization in the model re-evaluation plan. [emphasis added]

4.1.2 We absolutely disagree with the proposal to composite water samples from the West and East Branches of the Housatonic River. Each of these branches of the river are likely PCB contributors to the Main Stem Housatonic River, and it is important to understand the PCB levels in the water column from each. This is especially important as there has been no previous monitoring of PCBs on the West Branch. This is also important as potential development occurs on the PEDA site on the East Branch and a potential dam removal project occurs on the West Branch. We do concur that compositing samples on an equal-volume basis from the two sites will provide a general estimation of the baseline PCB loading entering the Main Stem Housatonic River, and would therefore agree that composite sampling could be done in addition to the separate discreet sampling of each of the branches of the river.

4.3.2 Past data is referenced but there is no discussion in how historical data will be utilized.

4.3.2 There is confusion between Section 4 and Section 5 text. Section 4 hints that sediment samples will be taken at a depth of 6 inches as has been done in the past, whereas Section 5 states that sampling will take only the top 2 inches of sediment. Information on page 30 of the EPA publication *Determination of the Biologically Relevant Sampling Depth for Terrestrial and Aquatic Ecological Risk Assessments* (EPA/600/R-15/176 | October 2015) indicates that the biotic zone for river sediments varies from about 6 inches to 14 inches deep. EPA's 2006 guidance *Contaminated Sediment Remediation*

Guidance for Hazardous Waste Sites (<https://semspub.epa.gov/work/HQ/174471.pdf>) indicates that the mixed layer in fresh waters is typically about 2 inches to 4 inches deep.

4.3.2 The BMP states that one of the primary objectives behind the collection of baseline sediment data is to facilitate an evaluation of MNR, and therefore surface sediment sampling of 0-6" is the only parameter that is outlined in the BMP. However, the BMP should be outlining a monitoring plan for the entire length of the Rest of River, not just the MNR sections. And the number of sampling sites should be robust and mirror the comprehensive sampling done between the late 1990s and early 2000s, such as those displayed in the series of maps found on the EPA website at <https://www.epa.gov/ge-housatonic/rest-river-ge-pittsfieldhousatonic-river-site#MapsFigures>. As shown on these maps, at a minimum samples were typically taken at 6" and 12", with many sites having samples taken at deeper levels down to 4 ½ feet deep. As it seems that the comprehensive sampling was done 15-20 years ago, it seems that samples should again be taken the full length of the river to determine if changes have occurred, and at minimum at depths of 6" and 12". Therefore:

- Monitoring in the MNR only is not enough. Even if we agreed it were, there is no proposal to sample sediment in Reach 5b in which no dredging of the river is proposed. There is also no sampling of the Lee coves/backwaters, in which PCBs have been found.
- We do not think the samples should be composited – this would bury any hot spots that could be found during the sampling program.
- Sampling of the top 2" is insufficient – historic sampling at a minimum took samples at 6" and 12" deep – and many sites had deeper sampling. As mentioned before, we've had several high precipitation/high flow events in the past 15-20 years and we need to sample deeper sediments to capture movement/deposition during those years

5.1.1 It would be helpful to have more information about the anticipated surface water monitoring approach that will be used during and after construction. The BMP states that consistency with the anticipated monitoring approach is important, but it is not clear how consistency will be achieved.

5.1.2 A map showing previous and proposed sampling locations would be helpful.

5.1.2 It could helpful to have a more detailed explanation of how data from previous and future sampling locations will be compared for long-term trend analysis. The BMP also does not discuss potential issues that might arise from comparing data from different historical and proposed sampling locations. A discussion of potential data incompatibility issues and solutions could be helpful.

5.1.2 The existing sampling program seems to avoid high flow conditions. While we understand personal safety concerns of collecting samples high flows, we GE to devise a system to collect samples during high flow conditions to more accurately track changing PCB concentrations during spring melt / severe storm events. It is likely that high flow conditions, with higher sediment loads and greater aeration due to churning/whitewater conditions, have corresponding higher PCB concentrations, and it is important to get baseline information on the PCB concentrations under these conditions. This is all the more important as high flow conditions are likely to increase in frequency due to an increase in severe storm events due to climate change.

Table 5-1 summarizes proposed changes to current surface water sampling based on the BMP. We questions this approach.

- Monthly sampling at Hubbard Avenue, Newell Street and Lyman Street is being discontinued as “not needed for the BMP.” What was the purpose of these sampling locations? Why are they no longer needed?
- Sampling at Silver Lake Outfall will continue but will take place quarterly instead of monthly. The BMP also states that samples from this location are not needed for the BMP. The rationale for this change should be stated.
- Sampling at Pomeroy Avenue is no longer needed due to the addition of the East and West Branch stations. Monthly sampling will be replaced by quarterly sampling under the 1.5 Mile Post-Removal Site Control Program. We oppose these changes. If we are not successful in our opposition, at a minimum the BMP should answer these questions: Can these quarterly sample results be included in the BMP? An explanation of how past samples from Pomeroy Avenue will be compared with samples from the East Branch and the West Branch could be helpful. Are any issues with comparing data from these different locations expected? If so, how will they be resolved?
- Monthly sampling at Holmes Road will be discontinued because PCB concentration results have been similar to results from Pomeroy Avenue and post-construction trends will be monitored at Woods Pond Dam and Rising Pond Dam. However, page 11 of the BMP states that the largest increase of PCBs in surface water is observed between Holmes Road and the New Lenox Road station. Continuing to monitor at Holmes Road, as well as at the planned East and West Branches, could provide important information about the source of the increasing PCB concentrations in surface water in this area of the Rest of River.

5.1.2.1.3 It is critically important to document the PCB concentrations flowing over both the Woods Pond and Rising Pond dams as the PCB flux at these sites are the Performance Standards for downstream transport of PCBs. As such we believe that samples should be captured not only at the wing walls of the dam, but also at two or more sites across the middle span of the dams.

5.1.2.1 Baseline water monitoring should be conducted for the entire length of the Rest of River, including sites below Rising Pond through to the Mass/Conn border. Although we agree that concentrations most likely decline south of Rising Pond, it is equally important to document the relatively cleaner waters to ensure that water quality is not degraded by construction activities.

5.1.2.6 It appears that a new USGS flow gauge will be installed at Woods Pond Dam. We welcome the station and request that GE donate the gauge to the USGS, and that the USGS maintains this gauge into the future, even past the cleanup in this area.

5.1.2.7, 5.2.2.8, 5.3.2.6 The spread of invasive species is an area of concern where field crews will be wading in and out of various reaches of the river. The upper reaches of the river are infested with a variety of aquatic and riparian plant species, and zebra mussels are suspected in the reach downstream of Laurel Lake. The BMP should set protocols for decontamination of boats, waders, boots, and equipment.

5.2 One of the Long-term Biota Monitoring Performance Standards stipulated in the Modified Permit is for duck breast tissue of 0.075 mg/kg. The BMP states that baseline conditions in ducks will not be conducted because they are migratory and subjected to a wide range of exposures to PCBs. The BMP states that “PCB concentrations in duck tissue *are expected* to track decreases achieved in water, sediment and fish. [emphasis added] Progress toward the long-term goal for ducks will, therefore, be assessed as part of post-construction monitoring program under Section II.B.4.b.(2) of the Modified

Permit.” We disagree with this expectation. The basic premises of establishing a baseline set of data is to be able to compare pre- and post-construction conditions, and therefore a protocol for collection pre-construction duck breast tissue is necessary. It will be up to GE and its consultants to determine that protocol. What has been done at other sites under similar circumstances? Might the breast meat of another, non-migratory bird species of the same trophic level and with a similar diet serve as a surrogate? In any event, we do not agree that there is not a need to set a biota baseline for this Performance Standard, which is clearly laid out in the Modified Permit.

5.2.2.1 The fish sampling program should consider sites that are known to be local fishing spots, with the Maple Street Bridge in Sheffield being one example.

5.2.2.4 The BMP calls for only one round of fish sampling. It is unclear from the BMP when the last full round of fish sampling at all 10 proposed sample sites was conducted. It says the most comprehensive sampling was last done in 2000, and then that some additional was done 2002, 2008 and 2011, but it is unknown which sites were sampled in the last sets. At least 2 or 3 sampling sets at all 10 sites should be done for a more accurate picture.

Sec. 5.2.2.6.2. states that fish otoliths will be collected in the field and archived in the event that age needs to be determined. Shouldn't age always be determined and recorded as part of the data set? Also in that same section it states that any external abnormalities will be recorded. Shouldn't any internal abnormalities also be recorded?

5.3.2 The Rest of River description includes backwaters and floodplains but baseline sampling of backwaters sediment and floodplain soils is not mentioned in the BMP. This is an omission and rationale for the omission should be given in detail.

5.3.2 Is sediment erosion due to storms or flooding a concern for the Rest of River? If so, will sediment bathymetry be monitored after high-energy events to evaluate bed elevation changes and potential effects on MNR?

5.3.2 Could water column suspended solids and/or turbidity monitoring be useful in establishing areas of sediment stability and instability and how these areas could affect MNR?

5.3.2.1 The BMP states that because of their close proximity to active remediation, sediment sampling will occur in all four MNR subreaches of Reach 7 and in Reach 9. However, we note that extensive remediation will occur in Reach 5a, which under this rationale would require baseline sediment sampling for Reach 5b, but this is not included in the BMP. This should be explained. Further, because the remediation will occur over several years and possibly decades, we believe that baseline sediment sampling should occur in all reaches of the river downstream of Woods Pond Dam, including the impoundments which are currently not being proposed for sediment sampling. The BMP should also explain why no sediment sampling is planned for Reaches 10, 13 and 16.

5.3.2.1 It is not clear in the BMP why composite sediment sampling is planned instead of discrete samples analysis from the same locations as historical sampling which, as the BMP has stated, is a robust data set. Discrete samples offer the opportunity to identify and address newly found hot spots. It also is not clear why the planned number of samples per river mile are appropriate. EPA's 2006 guidance states that factors to be considered in establishing sampling locations include the locations of baseline or pre-remediation sampling stations and spatial gradients in concentration. How were these factors

considered during the design of the sediment sampling plan? Additional explanation of the sediment sampling plan should be given.

5.3.2.1 proposes 12 samples per river mile in the MA reaches of Reach 7 and Reach 9 but will composite the samples per mile equally by volume, sampling only in the first two inches of sediment. We disagree with their statement on page 34 that “sediment sampling should focus on a surface layer thickness from which changes occur more quickly (e.g., a thinner layer) and thus can be more easily detected. As such, baseline sampling will focus on the top 2 inches (approximately 5 cm) of sediment to facilitate a more rapid assessment of post-remedy natural recovery.” A more rapid assessment is only a portion of the assessment needed and does not address the assessment of sediment in the full 0-6 inch sediment structure. We are concerned that a more rapid assessment could offer a means to declare earlier that NMR areas are “clean” and thus no need for continued monitoring and maintenance is necessary. In this scenario the proposed sampling program has the potential to let GE walk away prematurely from its long term responsibilities.

5.3.2.1 The BMP does not explain why sites are being chosen at random. To document any trends the sampling sites should be as close to previous sample sites as possible. Additionally, the BMP should explain why the program is not targeting areas of sediment build-up such as backwaters, impoundments, and point bars. Also, why is there no intent to gather data from different sediment types such as organic mucks up through sand/cobbles, and under different flow regimes such as slow backwaters, riffles, deep channels, etc.?

5.3.2.1 The BMP seems to indicate that the field crew will gather sediment samples where sediment depth is sufficient, but where sediment depth is not sufficient only river bottom conditions will be recorded. This means that the data set will be reduced wherever sediment is not present. We disagree with this approach. All efforts should be made to find a sampling site to make sure the number of sampling sites are as complete as designed.

5.3.2.8 and 5.4.1 While these sections list the sample’s location ID and other information, it would be useful to note whether this is an original sample site, a new site or a back-up site. This could make analysis easier to understand?

Section 8 Schedule

We urge the EPA to require GE to install the flow gauge at Woods Pond dam in the near future rather than waiting two years prior to remediation. Installing it now will provide a longer period of time to capture flow patterns at the dam. The more robust flow data set is important due to the dam serving as the site for the performance standard for PBCs, and will help to inform future sampling programs.

Thank you for the opportunity to comment on the BMP. We appreciate EPA Region 1’s commitment to public input throughout the cleanup process. These comments have been prepared with the assistance of the Berkshire Regional Planning Commission and Skeo Solutions (the latter provided through the EPA Technical Assistance Services for Communities program).