Message

From: Gravelding, Mark [Mark.Gravelding@arcadis.com]
Sent: 7/31/2020 2:05:23 PM
To: Sacks, Victoria [Sacks.Victoria@epa.gov]; Putnam, Lauren [Lauren.Putnam@arcadis.com]
CC: Singerman, Joel [Singerman.Joel@epa.gov]; Cirillo, Argie [Cirillo.Argie@epa.gov]; Ludmer, Margo [ludmer.margo@epa.gov]; Luo, Jacky X (DEC) [Jacky.Luo@dec.ny.gov]; Donald Hesler [donald.hesler@dec.ny.gov]; alma.lowry@gmail.com; jjheath1946@gmail.com
Subject: RE: Lower Ley Creek Pre-Design Investigation Data Summary Report

Thank you for the comments. We will review and respond shortly.

Mark O. Gravelding | Senior Vice President | mark.gravelding@arcadis.com

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ARCADIS, Imagine the result
Please consider the environment before printing this email.

From: Sacks, Victoria <Sacks.Victoria@epa.gov>
Sent: Tuesday, July 28, 2020 5:26 PM
To: Gravelding, Mark <Mark.Gravelding@arcadis.com>; Cridge, Todd <Todd.Cridge@arcadis.com>
Cc: Singerman, Joel <Singerman.Joel@epa.gov>; Cirillo, Argie <Cirillo.Argie@epa.gov>; Ludmer, Margo <ludmer.margo@epa.gov>; Luo, Jacky X (DEC) <Jacky.Luo@dec.ny.gov>; Donald Hesler <donald.hesler@dec.ny.gov>; alma.lowry@gmail.com; jjheath1946@gmail.com
Subject: Lower Ley Creek Pre-Design Investigation Data Summary Report

The US Environmental Protection Agency (EPA), New York State Department of Environmental Conservation (DEC), and Onondaga Nation have reviewed the Pre-Design Investigation Data Summary Report, dated May 2020, and have the following comments below.

In your cover letter, you request an extension to the Local Disposal Agreement deadline due to "ample time remaining before Lower Ley Creek remediation," the "potential for future conditions that may make other disposal options more desirable," and the fact that a "final agreement cannot effectively be entered into until both the volume of material and the RA participants are known."

While the predominant portion of the remedial design (RD) will be related to dredging and excavation of contaminated sediments and soils, work sequencing, staging areas, haul roads, and temporary bridges will all be affected by the final disposition of the contaminated sediments and soils. Without a local disposal agreement in place, the Respondents cannot complete the RD. In reference to "future conditions that may make other disposal options more desirable," during our June 16, 2020 conversation, you stated that you thought that the reasons given for delaying the disposal agreement were no longer relevant and were a carryover from the initial submittal in 2016. We are, however, amenable to revising the 60-day timeline called for in the Statement of Work (SOW) as described below.

As you will see from the comments, because of data gaps, additional floodplain soil sampling is necessary. In the interest of advancing the project, rather than waiting for the results of the additional sampling, updating the PDI Data Evaluation Report, and then submitting a workplan for the RD following EPA approval of the report, we believe that it is necessary to bifurcate the sediment dredging and floodplain soil RDs. Accordingly, **within 30 days, please submit a plan and schedule to collect additional floodplain soil samples** consistent with the comments below. Within 60 days, please submit a workplan (WP) with a schedule for the RD related to the dredging of the creek (Creek Sediments RDWP). Thirty days after receipt of the validated data from the floodplain soil samples, please submit a revised PDI

Data Evaluation Report that addresses our comments and incorporates the new sample data. A workplan and schedule for the floodplain soils RD (Floodplain Soils RDWP) will be due 60 days after EPA approval of the PDI Data Evaluation Report. Thirty percent designs will be due 90 days after EPA approval of the respective RD workplans. Depending upon how the two parallel designs progress, it might be appropriate to consolidate the efforts at some point in the future. Instead of executing an agreement for local disposal within 60 days of approval of the PDI Data Evaluation Report, the Respondents should submit the Local Disposal Agreement as part of the Floodplain Soil 30% RD deliverable.

The RD schedule is modified as denoted in Attachment 1.

Should you have any questions regarding the comments, please do not hesitate to contact me.

Sincerely,

Victoria Sacks

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GENERAL COMMENTS

GC #1 The PDI Data Summary Report states "Analytical results from the soil samples were compared to the PCB cleanup goal and/or the soil cleanup objective (SCO) for metals as defined in the ROD and were used to make proposed changes to the ROD-defined removal depths and extents." The ROD states that "PCBs are the primary ecological risk driver and are collocated with the majority of the other sediment COCs. Addressing PCBs above 1 mg/kg in the sediments and 1 mg/kg at the surface and 10 mg/kg at depth in the soil is expected to address risks associated with other soil and sediment COCs."

- If there were areas where metals were the driver, they should be clearly identified in the text, table, and figures. Appendix B shows that most samples were not analyzed for metals. Please explain why the PDI sampled for metals in one location (SOIL-L7-001).

GC #2 EPA created the name "Lower Ley Creek" for the subsite. The entire length of the creek is called Ley Creek. It is suggested that "Lower" be eliminated (see 1.1.1 Subsite Description – pdf p.9) and in subsequent references unless the text is referring to the subsite. "The lower portion of Ley Creek" may also be an appropriate alternative.

GC #3 The word "Sub-site" is sometimes written "Sub-Site" and sometimes "Sub-site." Please standardize to "subsite" throughout the text.

GC #4 The report should clearly identify any locations where PCBs are elevated at depths below the anticipated removal.

GC #5 The report should provide a more complete explanation of its sampling protocol and terminology. Specifically, procedures for step-out sampling (and labeling) are not explained in the PDI Work Plan or in the PDI Data Summary Report. Please add language to explain when and why step-out samples were collected and describe the procedure. For example, is Soil-I-018 STEP intended to confirm or replicate

the data from Soil-I-018? If so, what determines the placement of this confirmatory sample? If not, why use the same numbering and what triggers the inclusion of this additional sample site?

GC #6 For a few locations, PCB exceedances in surface soils (1-2 feet) appear to have prompted additional sampling in soils below the assumed excavation depth contained in the ROD. However, this may be limited to instances where PCB levels in surface soils exceed the higher standards applicable to subsurface soils (2 feet or deeper). For example, in sampling sites H-006, D-011, and C-008, sampling was extended below the ROD-prescribed two-feet of excavation where PCB levels found in the 1-2-foot depth exceeded 10 ppm – the standard applicable to the 2-3-foot depth. In other locations, similar results did not trigger additional assessments. For example, even though total PCBs were above 10 ppm in both the 0-1-foot and 1-2 foot samples at SOIL-E-T002, SOIL-E-T003, SOIL-E-T004, sampling was not extended to the 2-3-foot depth to determine the vertical extent of soil contamination. Please explain this in detail and justify why similar results did not result in similar sampling.

SPECIFIC COMMENTS

#1 **1 Introduction – pdf p.9** – Figure 1-2 is not as described in the text. It does not show the boundaries of the subsite or indicate upland soil areas. Please correct the figure accordingly.

#2 **1.1.1 Subsite Description – pdf p.9** – An underground natural gas pipeline owned by National Grid and an underground oil pipeline owned by Buckeye Pipeline Company run parallel to the northern bank of the creek for much of this section. Figure 1-2 shows only one pipeline. Please add the location of the second pipeline to the figure. Also, please define "this section."

#3 **1.1.1 Subsite Description – pdf p.9** – "Lower Ley Creek passes under bridges along State Route 11, 7th North Street, and Interstate 81. Bear Trap Creek enters Lower Ley Creek upstream of 7th North Street." In Figure 1-2, it appears that Bear Trap Creek is not connected to Ley Creek. Please extend it to indicate confluence or explain in the text. Also, please note that the name of the creek is "Ley Creek." "Lower Ley Creek" is the name of the subsite.

#4 **Section 1 Introduction – pdf p.9** – The text should reference the September 7, 2018 EPA letter that approved the proposed sampling locations by Arcadis and identified additional sample locations that would be required.

#5 **1.1.2 Sub-Site History – pdf p.10** – No period is necessary after the 2016 in "(Arcadis 2016.)."

#6 **1.3 Description of the Selected Remedy – pdf p.12** – "Transporting excavated soils and sediments that are not TSCA-regulated (*i.e.,* PCB concentrations less than 50 mg/kg) and are not characteristic hazardous waste to a local disposal facility (LDF), if available/feasible."
The ROD includes a footnote that states "Local disposal options currently under consideration include consolidation under the cap of the Town of Salina Landfill within the area controlled by the leachate collection system or in a newly constructed cell with a liner and leachate collection system on the yet-to-be capped Cooper Crouse-Hinds North Landfill (which is scheduled to be properly closed under the State Superfund program in the near future). The specific local disposal location will be determined during the remedial design phase. Should local disposal options be determined not to be viable, these materials will be sent to an appropriate nonlocal facility for disposal." The noted language should be consistent with the ROD language.

#7 **Section 2.5.1 Soil Sampling Program and Results -** Second Bullet pdf p.19 – While the RI indicated that Soil F and G had metal exceedances, only PCBs were analyzed during the PDI to determine the extent of removal. Please clarify.

#8 **2.6 Waste Characterization – pdf p.24** – The protocol for waste characterization is not well explained. How were these samples collected and from which sampling intervals? How large was the area from which the composites were drawn? Were composites based on geographic proximity?

#9 **2.6 Waste Characterization – pdf p.24** – The report states that "waste characterization sampling locations" are illustrated in the attached figures, but Figures 2a through 2k do not identify waste characterization sampling locations. Please add these locations and the appropriate symbology to the legend in figures.

#10 **2.6 Waste Characterization – pdf p.24** – "Metals detections were detected in the majority of samples, with the most frequent detections being barium, chromium, cadmium, and lead." This sentence is awkward. It is suggested that the first "detection" be eliminated.

#11 **2.6 Waste Characterization – pdf p.24** – "These wastes will be managed in an on-site LDF constructed for the Lower Ley Creek excavation materials."

- The ROD calls for disposal in an existing facility (*i.e.,* the Town of Salina Landfill or Cooper Crouse-Hinds North Landfill). Should these disposal options be determined not to be viable, the materials will be sent to an appropriate nonlocal facility for disposal. The ROD does not allow for a facility to be constructed on-site.

#12 **2.7 Geotechnical Borings – pdf p.24** – "The locations of the installed geotechnical borings are illustrated on Figures 2a through 2k."
Geotechnical boring locations are included in figures 2a through **2h (not 2k)**. Please correct the reference.

#13 **2.7 Geotechnical Borings – pdf p. 26** – "The results of the geotechnical analyses noted above, including the boring locations and depth intervals for which individual samples were collected, are summarized in Appendix D."

- Appendix D should also include a figure showing the locations of the geotechnical boring locations.

#14 **3 Description of Revised Remedy – pdf p.30** – Tentative excavation boundaries were defined in the ROD, with the understanding that the lateral and vertical boundaries would be defined during a PDI. The remedy is not being revised; the remediation boundaries are being refined. Post-excavation sampling will ensure that the ROD cleanup criteria is met and excavation footprints are sufficient (*i.e.*, 1 ppm PCBs in the top 2 feet and 10 ppm PCBs in deeper soils).

#15 **3.1 Revised Soil Remediation Area – pdf p.30** – Bullets – Please add specific figure numbers to the bullet point examples, *e.g.,* "Soil F (Figure 2E)."

#16 **3.1 Revised Soil Remediation Area – pdf p.30** – Soil L –

- Please justify why the area in L is being reduced in this PDI Report when samples SS-03, SB-04, SS-04, SB-09, and SS-09 exceed the cleanup criteria.
- Although soil removal areas SOIL-L1 and SOIL-L2 were eliminated, it is unclear to the reader where they were originally located. Please add them to the map using appropriate symbology along with the "portion of soil L" that was removed.

#17 **3.1 Revised Soil Remediation Area – pdf p.31** – "Soil-L8 – Samples collected did not support removal to 14 feet from this boring, previously associated with sample location SS-05/SB-05. Samples in this area were collected from the 2- to 3--foot increment to the 0- to 8--foot increment for analysis of PCBs with additional 1--foot samples collected to 16 feet and held for analysis. Associated results suggest that removal depths in this specific area can be limited to 4 feet."

- Which samples were collected after SS-05/SB-05 to further delineate? The map only shows circular samples in the vicinity implying the same sampling event. Please explain and clarify in the text and figures.

#18 **3.1 Revised Soil Remediation Area – pdf p.31** – "Soil-L9 – Samples collected did not support removal to 14 feet from this boring, previously associated with sample location SB-05B. Samples at new locations SOIL-L8-001 and SOIL-L9-001 were collected from the 2- to 3--foot increment to the 13- to 14--foot increment for analysis of PCBs with additional 1--foot samples collected to 16 feet and held for analysis. Associated results suggest that removal depth in this specific area can be limited to 3 feet."

- In the figure, SB-05B is colored to indicate that it did not exceed screening criteria. Why do the colors in the figures contradict the statements in the text?
- SOIL-L8-001 is not shown in the figure. SOIL-L8-002 is on the figure, but shows no exceedance of the screening criteria.

#19 **3.1 Revised Soil Remediation Area – pdf p.31** – The Western Drainage Swale area is not named as such in Figure 2E.

- Please update the figures and add to the overview figures.
- In the Western Drainage Swale area in the figure, the red dashed section should be filled in with black dashes to represent "proposed removal extent reduction area."

#20 **3.1 Revised Soil Remediation Area – pdf p.31** – "Based on the revised soil removal extents and depths, the soil removal volume has increased from approximately 80,000 cubic yards of material to approximately 93,500 cubic yards of material."

- This information is particularly useful for this report. Please highlight somewhere in the report.
- Please update these numbers to 78,000 (from the ROD) to 93,500 (PDI)

#21 **4 Schedule – pdf p. 36** – In the cover letter, the Respondents requested relief from the 60-day schedule related to the execution of local disposal agreement. As is noted above, we are amenable to revising the 60-day timeline called for in the SOW. Instead of executing an agreement for local disposal within 60 days of approval of the PDI report, we propose that the Respondents submit a Floodplain Soils RD WP with a schedule for the design within 60 days of EPA's approval of the Revised PDI Data Summary Report. The Local Disposal Agreement should be included as part of the Floodplain Soils Preliminary (30%) RD deliverable. The RD schedule would be modified as included in Attachment 1.

TABLES

#22 **Table 3-1: Changes in Proposed Removal Areas – pdf p.32**

- Please add figure numbers to the table to make areas easier to locate on the figures.
- The table should align ROD areas and PDI areas. Areas that were removed from the ROD can simply be shown as "NA" or "-."
- Soil-L area was reduced despite samples showing exceedances in the reduction area. Please justify.
- Soil-L1 is not shown in figures; please include in figures.
- It appears that L4 was decreased in size by 158 sf. This removal area should be shown on the figures. This applies to *all* areas that are smaller in the PDI as compared to the ROD (*e.g.,* L5, L6, L7, L8, L9, etc.).
- Is the area in Soil-I from the ROD equivalent to Soil-I + Soil-I1 + Soil I2 + Soil-I3 in the PDI? This needs to be clarified in the table and text.
- Soil-H is much larger in the PDI compared to the ROD. What did Soil-H look like previously? Please show the increase in area on the figures.
- SOIL-G is colored grey for the 0.5 -foot removal depth in Figure 2c. With no samples showing exceedances in the figure, it's unclear why this area is targeted for removal. Please clarify in the text, table, and/or figures. See comment #7.
- Please show how Soil-E changed between the ROD and the PDI.
- Please show how Soil-B changed between the ROD and the PDI.

#23 **Table 3-2: Proposed Changes to the ROD-Defined Sediment Removal Areas – pdf p.33-35**

- Please add figure numbers to the table to make these areas easier to locate.
- The table should align ROD areas and PDI areas. Areas that were removed from the ROD can simply be shown as "NA" or "-."
- The line separating SED-A from SED-B seems to be missing – please update.
- Show removal extent reduction area in sediments as well as soils. It's unclear how SED-A changed between the ROD and this PDI report.
- Show areas where the remedy footprint has grown from the ROD to the PDI in the figures.
- Is SED-E from the ROD equivalent to SED-E + E1 + E2 + E3 + E4 + E5 in the PDI? Please clarify.
- The table needs a header on each page if it runs onto more than one page.
- Samples SED-G10 and SED-G11 etc. are currently listed after SED-G1. Please reorder so they come after SED-G9.
- Samples SED-J10 and JED-G11 etc. are currently listed after SED-J1. Please reorder so they come after SED-J9.
- Is sample SED-K from the ROD equivalent to SED-K + K1 in the PDI? Please clarify.

FIGURES

#24 The swale area, a depression area located south of Ley Creek and east of the 7th North Street Bridge was sampled to 5 ft in 2010 (see ROD). It was not discussed in this report. It should be added to the history in Section 1 and to figures 1-2, 2-a, 2-c, and 2-d. Please distinguish this swale from the "Western Drainage Swale" in SOIL-D mentioned above.

#25 Some of the excavations appear to be based on topography; text should be added to indicate that.

#26 It appears that some cutoff excavation limits are to clean soil samples and some are to midpoints between clean and contaminated samples. Please extend excavations to clean samples or justify.

#27 Please move the marker for SOIL-D1 to the north side of the creek.

#28 A boundary between SED-F2 and SED-F3 is necessary. Please add.

#29 SED-J1 needs an orange border in the figure.

#30 Figure 1-1: Please add the boundaries of the Lower Ley Creek subsite.

#31 Please include the landfill polygon areas from Figure 1-2 on all the maps (and legends).

#32 Figure 1-2 (Site Layout) should show the boundaries of the subsite and indicate upland soil areas as described in the text.

#33 Figure 1-2: Two pipelines are mentioned in the text, but only one is shown on this map. Please show both and identify them here.

#34 Figure 1-2: Please label all bridges on this figure.

#35 Figure 2b: The L-7 sediment sample appears to be outside of the creek. Please explain.

#36 Figure 2 series: *Sediment Estimated Target Remedial Depth* colors should match *Soil Estimated Target Remedial Depth* colors. The colors for 2, 3, 5, and 8 ft match, but 4, 5, and 10 ft do not.

#37 Figure 2b: The reduction area west of SOIL-L/SOIL-L8 *(i.e.,* SS-03, SB-04, SS-04, SB-09, and SS-09) contains PCB > 1 ppm. Please justify why this area is being reduced when five samples exceed the cleanup criteria (see comment #16).

#38 Figure 2b: Sample L-110 is a TSCA sample. Please justify or include in remedy.

#39 Figure 2b: Samples SS-17, SB-17, L-108, SS-18, and SB-18 are TSCA-level material not included within the removal area. Please justify or include in the remedy.

#40 Figure 2b: Sample L-7 does not appear to be addressed by the proposed sediment and soil excavation. Please explain.

#41 Figure 2b: Samples L-107, SB-20, SS-20, SB-19, and SS-19 have exceedances but are not included in the removal area. Please justify.

#42 Figure 2c – There is no clean soil sample to determine the edge of the excavation for the south side of Soil-I2 and Soil I3. Please include more sampling to define the boundary of the removal area.

#43 Figure 2c/2d: Samples TP-46, TP-8, TP-45, and SW/SED-22 are all TSCA-level material. Please justify or include in the remedy.

#44 Figure 2c: Samples L-107 and SB-20/SS-20 show PCBs > 1 ppm and 50 ppm, respectively but are not included in the remedy footprint. Please justify or include in the remedy. Please add green shading symbology to legend and explain in the text.

#45 Figure 2c/2d: It appears that SED-HI is mislabeled--one sample is labeled "SED-H-###" and the other sample is labeled "SED-HI-###." The area just upstream has samples also labeled "SED-HI-###." Please check that this area is properly defined.

#46 Figure 2d- The excavation footprint in the area of Soil M should be to clean sample points (Soil-M-004, Soil-M-003, and Soil-M-002).

#47 Figure 2d: The icon in the legend for "Proposed Removal Extent Reduction Area" does not accurately describe the symbology on the map. Please update.

#48 Figure 2d: Samples in SOIL-H2 are labeled "SOIL-I-###" Is SOIL-H2 mislabeled? If so, where is SOIL-H2?

#49 Figure 2d: Samples in SED-GH are labeled "SED-H-###." This appears to be in error. Please correct.

#50 Figure 2e: Soil-H-019 – This sample indicates the presence of TSCA material; however, the removal area does not appear to take that into account. Please include more sampling to define the boundary of the removal area.

#51 Figure 2f – The section (Soil-E) that is proposed to be reduced isn't referenced in Section 3.1, Revised Soil Remediation. This area was addressed during the Crouse Hinds Landfill remediation.

#52 Please add the New York State regulated wetland (SYW-11) to the maps (Figures 1-2, 2e, and 2f). The ROD stated that this wetland was located on both sides adjacent to Ley Creek downstream of the confluence with Bear Trap Creek which enters Ley Creek upstream of 7th North Street.

#53 Figure 2h: On the northeast side of SOIL-C, there are a series of samples that exceed SCOs (see SOIL-C-027, SOIL-C-031, SOIL-C-027-STEP, and SOIL-C-031-STEP). There do not appear to be any clean samples defining the outer limit of contamination in this area. Please include more sampling to define the boundary of the removal area.

#54 Figure 2i – With no SCO exceedances, why were additional samples taken in the vicinity of LLCD13 in 2019? Please include the history in the report in order to justify the reduction area.

#55 Figure 2j – The section (Soil B) that is proposed to be reduced wasn't included in Section 3.1, Revised Soil Remediation. While there are sufficient "clean" samples along the northern part of the reduced area, (soil-B-007D, soil-B-007B and Soil-B004), the southern edge appears to be an arbitrary cut off. Please explain or include more sampling to define the boundary of the removal area.

APPENDIX A

#56 The solid blue lines (both light blue and dark blue) are not defined in the Appendix A figures. Please add a description to the legend.

APPENDIX B

#57 Please indicate values that exceed SCOs in bold or shading.

#58 SOIL-D-023-STEP – What warranted a 2-3-foot sample in this location?

#59 SOIL-D-026-STEP – This location is on the north side of the creek (Figure 2e). Please explain why this sample location was tested down to 4 feet when most of the others only go to 2 feet. It does not seem to follow the pattern that deeper samples were taken if the 2-3-foot sample contained PCBs > 10ppm.

#60 SOIL-E-015-STEP2 – Please explain why there is no 0-1-foot sample in this location. Also explain why a second step out sample was taken.

#61 SOIL-E-T001 - There is a 1-2-foot sample but no 0-1-foot sample. Please explain. Also explain what a "T" in the sample name indicates in the methodology.

#62 SOIL-E-T002 - The >10 ppm value here in the 1-2-foot sample for total PCBs warrants a 2-3-foot sample. The PDI WP stated that samples in this area would archive samples in the 2-4 foot range. Please analyze and include results/analysis in Revised PDI Data Summary Report. Please explain what a "T" in the sample name indicates.

#63 SOIL-E-T003 - The >10 ppm value here in the 1-2-foot sample for total PCBs warrants a 2-3-foot sample. The PDI WP stated that samples in this area would archive samples in the 2-4 foot range. Please analyze

and include results/analysis in Revised PDI Data Summary Report. Please explain what a "T" in the sample name indicates.

#64 SOIL-E-T004 - The >10 ppm value here in the 1-2-foot sample for total PCBs warrants a 2-3-foot sample. The PDI WP stated that samples in this area would archive samples in the 2-4 foot range. Please analyze and include results/analysis in Revised PDI Data Summary Report. Please explain what a "T" in the sample name indicates.

#65 Results from SOIL-I-018 show increasing PCB levels at each sampling depth from 0-1 feet to 3-4 feet with a final recorded PCB level of 210 ppm. No deeper sampling was done to determine at what point PCB levels fell below the applicable limit. The proposed excavation depth for this area is 4 feet which appears to be based on an assumption that PCB levels are lower in the next interval (yet unsampled). Are there archived samples in this area? If not, address the plan for this area to be sampled. Any other locations where the deepest sample exceeds SCOs must be resampled to vertically delineate excavation depths.

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