

Gray, Jane K - DNR

From: Gray, Jane K - DNR
Sent: Wednesday, November 20, 2024 2:49 PM
To: Kevin Madson
Cc: Seilheimer, Trena; Endsley, Erin A - DNR; Navon, Daria
Subject: CN/WCL RR Track Former (02-37-587000) - Work Plan Review

Good afternoon – Thank you for taking the time to meet virtually today with the DNR to discuss the *Incremental Sampling Methodology Soil Sampling Work Plan* (the “work plan”), submitted with its applicable review fee on 10/09/24 for the subject site. As we discussed, the use of incremental sampling methodology (ISM) for investigation at the Riverside Park appears to be a reasonable approach, but the DNR cannot approve the work plan as it is currently presented. The following comments should be incorporated into a revised work plan:

- Section 2.1 Soil Sample Location Rationale: The DNR recommends that shallower depth intervals are assessed within the sampling units (e.g., 0-0.5’ & 0.5-1’ or 0-1’ & 1-2’). These shallower depth intervals are better suited to assess potential arsenic impacts from overland flow. Additionally, the reduced sample interval/thickness will decrease the volume of soil being collected through ISM, which will help to improve the representativeness of the data generated. As detailed below, the current ISM intervals/methods may not provide representative data given the volume of soil being collected and the methods used to achieve the sample volume necessary for lab analysis.
- Section 2.2 Soil Sample Collection and Field Processing:
 - o If shallower depth intervals are used for soil sampling, then the direct push methodology may not be necessary. Alternatively, a narrower diameter soil sampling tool may be used that would result in less soil volume being collected.
 - o The work plan proposes subsampling of 0-4’ cores using core wedge subsampling and core slicing methodology. The core slice methodology is not recommended in ITRC ISM Guidance (linked [here](#)). ITRC considers the core wedge subsampling method a practical way to reduce sample mass, but states that the core slice method is the least preferred method for reducing sample mass because it is least likely to be representative of the entire vertical soil sample. Please propose a different subsampling methodology that does not randomly select specific intervals, or evaluate other means to reduce sample volume so that this type of subsampling is not needed.
 - o Consider collecting one or more field subsampling replicate samples (separate from SU replicates) to assess potential variability of field subsampling methodology.
- Section 3.0 Lab Analysis and Quality Assurance/Quality Control
 - o Include an SOP for the subsampling that will be completed in the lab.
 - o Consider collecting one or more lab replicate samples to assess the potential variability of the lab subsampling method that is being proposed.
 - o Include a table summarizing the number and type of QA/QC samples.
- Section 4.1 ISM Data Evaluation: The % relative standard deviation (RSD) should not exceed 25% to ensure data variability is acceptable. This % RSD is consistent with what the DNR has accepted at other contamination cases applying similar methods.
- Section 4.2 Additional Soil Sample Location Rationale and ISM Data Evaluation
 - o The work plan mentions the potential use of a background ISM sampling to assess site-specific arsenic background concentrations. The DNR recommends that the data collected from the proposed ISM sampling plan be evaluated prior to developing a plan for background ISM sampling. Further, the DNR cannot comment on the background ISM sampling plan as presented in the work plan as there is not enough information to provide meaningful feedback. Therefore, the DNR recommends that this section of the work plan be removed and revisited depending on the results of the planned ISM sampling.

The work plan should be updated in consideration with the comments provided above. The DNR will review the revised work plan under the same technical assistance fee that was received on 10/09/24. Once an updated work plan is submitted that incorporates this feedback, the DNR will present a formal response letter for the work plan.

Thank you, Jane

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