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July 11, 2019

Ms. Diane Salkie
LPRSA RI/FS Remedial Project Manager
Emergency and Remedial Response Division
USEPA Region 2
290 Broadway, 20th Floor
New York, New York 10007

Re: USEPA Conditional Approval of the 17-Mile Remedial Investigation Report, Lower Passaic River Study (LPRSA), Diamond Alkali Superfund Site, Administrative Settlement Agreement and Order on Consent for Remedial Investigation/Feasibility Study CERCLA Docket No. 02-2007-2009

Dear Ms. Salkie:

The LPRSA Cooperating Parties Group (CPG) acknowledges USEPA's June 28 conditional approval of the 17-mile Remedial Investigation (RI) Report and will address the remaining comments by providing a revised document.

The CPG delivered a final version of the 17-mile RI Report¹ to USEPA with the mutual understanding that the current RI Report provides sufficient information to evaluate alternatives for an Interim Remedy from RM 8.3 to RM 15 of the upper 9 miles but is insufficient for the purposes of evaluating remedial alternatives for a final remedy for the upper 9-miles of the LPRSA.

Specifically, the sediment transport and chemical fate and transport models developed and approved for the current 17-mile RI Report have been documented to be incomplete as follows:

- ***USEPA's July 30, 2018 RI Comment 1 – "The current level of accuracy in the models is acceptable for the RI/FS. Nevertheless, significant framework and parameter uncertainties associated with components of this complex system limit the accuracy of the models' predictions, especially related to delineating areas subject to erosion and deposition, and to surface sediment recovery trends. A high degree of caution should be applied when using those predictions to compare remedial alternatives."***
(emphasis added)

¹ The CPG under USEPA oversight is completing the initial calibration of a bioaccumulation model which is required as part of the May 2007 AOC. It is the CPG's understanding that final approval of the 17-mile RI Report will be made following USEPA's approval of the initial calibration. It is also the CPG's understanding that the bioaccumulation model may be subject to peer review and require the additional data collected as part of the Current Conditions Sampling Program and the IR RD Pre-Design Investigation prior to it being considered ready for use.

“As additional data is collected after the FS, the models should be refined and recalibrated to incorporate the new data. This caveat about the model uncertainty, limitations, and utility, should be noted in the RI text and any relevant appendices when discussing model predictions. Furthermore, before a final remedy is selected, efforts to reduce model uncertainty for the purposes of delineating erosional and depositional areas and evaluating monitored natural recovery are required.” (emphasis added).

- USEPA’s July 30, 2018 RI Comment 41 - “...**Overall, the limited accuracy of the models’ predictions of erosion and deposition and of risk reduction over time due to the complexity of the system and certain data limitations should be considered when making regulatory decisions for the Lower Passaic and Newark Bay...**” (emphasis added)
- USEPA’s October 10, 2018 Letter - “The Remedial Investigation (RI) for the LPRSA has provided adequate information indicating that certain sediment areas in the upper nine miles of the LPRSA present an unacceptable risk to human health, likely pose an unacceptable risk to the environment, and act as a source of contamination to the rest of the waterway. EPA’s Contaminated Sediment Remediation Guidance for Hazardous Waste Sites (2005) states, “It also may be appropriate to take other early or interim actions, followed by a period of monitoring before deciding on a final remedy. Early or interim actions are frequently used to prevent human exposure to contaminants or to control sources of sediment contamination.” **Accordingly, EPA has discussed with the CPG an adaptive management strategy based on an iterative approach to address sediment source areas in the upper nine miles of the LPRSA, while collecting additional information to reduce uncertainties associated with that reach of the river.**” (emphasis added)
- New Jersey Department of Environmental Protection (NJDEP) December 4, 2018 Comments - Section 3.1, FS Report sections, Section 6: “As stated in Section 2.8 (FS Projection Runs), caution is needed for the role of the models at this stage of the process (ROD 1 FS). **With no new data collected before ROD 1, and given the known limitations of these models, especially for the upper 9 miles of the river, the degree of their utility for the ROD 1 IR is not well known (but could be described in the FSWP).**” (emphasis added)

Moreover, the calibration of the bioaccumulation model for the LPRSA has not been completed and is a required deliverable for the 17-mile RI/FS AOC. It is the CPG’s understanding that USEPA may decide to conduct a peer review of this model. In addition, the bioaccumulation model relies on the output from the sediment transport and chemical fate and transport model which as documented above are not at this time sufficiently reliable to project long-term patterns in erosion and deposition or trends in sediment concentrations.

Thus, the current bioaccumulation model cannot be used to develop preliminary remedial goals (PRGs) for which a final remedy would be expected to achieve.

In the event, that USEPA decides not to pursue an interim remedy for the upper 9 miles of the LPRSA and determines that a final remedy is required, then a significant amount of additional data would be required to supplement the existing RI to finalize the models and draft a final Feasibility Study (FS).

In order to increase the reliability and predictive power of the models to support a final FS including the development of PRGs, additional RI data are required for this purpose and would include at a minimum:

- At least 100 additional sediment sampling location (primarily cores) collected between RM 8.3 and RM 15 for additional sediment chemistry. Subsequent to this initial collection, supplemental sampling maybe required to better characterize target areas identified by the first round of sediment sampling.
- Fish and crab tissue sampling similar to the scope identified for Current Conditions Sampling identified for 2019 that may continue in 2020 and 2021. Additionally, benthic data may be required to provide a current assessment and better understanding of the benthic community.
- Surface water sampling similar to the scope identified for Current Conditions Sampling identified for 2019 that may continue in 2020 and 2021.

These data would allow for development of the PRGs, the delineation of potential remedial footprints for the FS, and projected recovery trajectories following the remedial action – all of which are required to evaluate remedial alternatives for a final remedy for the upper 9 miles. Actual design-level data would be collected during a pre-design investigation as part of a remedial design subsequent to a record of decision for a final remedy for the upper 9 miles.

The CPG incorporated as directed the NJDEP threshold response value (TRV) disclaimer and an abbreviated version as footnotes into Section 9 of the RI Report, which had been previously provided to the CPG by the USEPA to address the concerns of NJDEP regarding the multiple TRVs in the USEPA-approved 17-mile Baseline Ecological Risk Assessment. The CPG will not reiterate its position that was documented in the *de maximis* letter dated July 11, 2019 letter suffice to say CPG reserves its rights to object to, make additional arguments concerning, or otherwise contest NJDEP's statements in the disclaimers.

The CPG requests that this letter be included in the Administrative Record for the 17-mile LPRSA operable unit of the Diamond Alkali Superfund Site.

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Please contact me with any questions or comments.

Very Truly Yours,

de maximis, inc.



Robert Law, Ph.D.
CPG Project Coordinator

cc: Michael Sivak, USEPA
Frances Zizila, USEPA
LPRSA Cooperating Parties Group
CPG Coordinating Counsel

FILE:3177/20190711 LPRSA RI Approval Letter Response to EPA