1900 L St. NW, Suite 220
Washington, DC 20036

DC APPLESEED

(p) 202.289.8007
www.dcappleseed.org



January 16, 2024

The Honorable Richard Jackson
Director, Department of Energy and Environment
1200 First Street, NE
Washington, DC 20002

**Re: Joint Comments on Anacostia River Sediment Project 30% Basis of Design Report, Explanation of Significant Differences, and Related Supporting Documents**

Dear Director Jackson:

This letter and the attached spreadsheet provide the comments of DC Appleseed Center for Law and Justice, DC Environmental Network, Anacostia Watershed Society, and Anacostia Riverkeeper regarding the 30% Basis of Design Report (BoDR), the Explanation of Significant Differences (ESD), and related documentation, including the Treatability Study and the Preliminary Design Investigation (PDI).

We very much appreciate the opportunity to comment. We have attached a spreadsheet of specific technical comments, indexed to portions of the BoDR and supporting documents. Overall, the District Department of Energy and Environment (DOEE) has produced a high-quality set of reports and done so in a reasonable time frame.

This letter highlights several overall issues where these reports – and the work based on them – can be improved. In particular:

1. DOEE relies heavily in its remedial choices on a relatively new technology, in-situ treatment of polychlorinated biphenyl (PCB)-contaminated sediment with activated carbon. This reliance on a relatively new treatment approach suggests the need for a clear contingency plan setting forth the triggers for determining success or failure, as well as a timeline for doing so, and a contingency plan for other kinds of remedial action if the triggers show that the new technology has not met the trigger by the times specified.

2. The beneficial reuse criteria for treated sediment are still unclear and not yet final, making it very difficult for the public to evaluate the volume of sediment to be reused, the likely locations, and the impact of such reuse in and near the community. We recommend steps to address these concerns.

3. The BoDR has appropriately changed its design criteria to address the likely increase in storm severity and frequency caused by climate change.

4. The Corps of Engineers has substantial liability for PCB contamination in Kingman Lake, based on the Corps' undisputed conduct in moving PCB-

contaminated dredge spoil from the Anacostia Main Stem to Kingman Lake during Corps dredging activities. Therefore, the Corps should be added as a potentially responsible party (PRP) at this site.

## I. Reliance on Activated Carbon Treatment of Contaminated Sediment Makes It Critical That DOEE Include Clear Contingency Plans to Address Potential Remedy Failure.

The Explanation of Significant Differences is provided as Appendix A to the BoDR, but may be the most legally significant document in this package. The ESD substantially reconfigures the remedy to rely heavily upon in-situ treatment with Activated Carbon. The ESD does so based on (1) favorable results at several other sites and (2) favorable treatability study results.

DOEE has also redrawn and reduced the size of the early action areas (EAAs) based on sampling data. DOEE has expanded some areas and reduced others, apparently based on more complete sampling data from the PDI. The revisions appear to be done in an even-handed manner and driven by the data.

The ESD also would rely upon activated carbon treatment to increase beneficial use options for the dredged materials. This approach is based in part on the treatability study results. All these changes will reduce the amount of dredging planned for restoration purposes. If the technology works as advertised, these are good changes since they will minimize the remedial work's disruption of wetlands and benthic communities while reducing the financial cost, the adverse environmental impact of the remedial work, and the disruption of the local community to transport the dredge spoil to a disposal site.

As you are aware, successfully scaling up a promising treatment technology often proves far more difficult and expensive than anyone anticipates at the start. The large scale of the Anacostia River Sediment project (ARSP), even in the early action phases, and the absence of much data about the long-term effectiveness of activated carbon in immobilizing PCBs and similar contaminants in different environments (e.g. wetlands, bottom sediment, uplands) suggest that there is greater uncertainty about the long-term effectiveness of the technology than is true at many other Superfund sites.

Given this genuine uncertainty about long-term effectiveness and the remedy's permanence, we strongly urge that DOEE revise the ESD by including a contingency plan with clear steps to address any substantial failure to achieve remedial objectives within a specified timeframe, as well as to address any subsequent failure to maintain acceptably low levels of mobile contaminants in the field. We recommend establishing a comprehensive contingency plan that clearly outlines the criteria for evaluating success or failure, in addition to creating a timeline for assessment and including provisions for alternative remedial actions if the specified triggers indicate that the new technology has not met expectations within the specified timeframe.

In addition to the innovative use of carbon technology and beneficial reuse measures outlined in the BoDR, it is crucial to emphasize the importance of ongoing overall assessment. To ensure the effectiveness of the remediation efforts, a comprehensive review every two years is recommended. This regular evaluation will involve measuring progress and success against predetermined benchmarks. If these benchmarks are not met, we suggest a thorough reevaluation will be initiated to identify potential areas for improvement or the implementation of additional measures. This proactive approach will contribute to the adaptive management of the project, ensuring its continued success and environmental impact mitigation over time.

## II. Beneficial Reuse Criteria Have Not Been Settled; Updated Criteria Should Be Subject to Public Comment and Issued with Estimated Sediment Reuse Volumes to Enable Effective Public Understanding, Comment, and Acceptance.

If the activated carbon treatment works as well as reported in these documents, that success may allow substantially less dredging and more reuse of sediment in rebuilding wetlands as well as in soil amendments onshore, and in other ways that will reduce the cost and secondary environmental impacts of transporting large volumes of dredge spoil through city streets and highways.

These reuse criteria, however, have not been settled, or if they have been settled, have not been released to the public. The absence of final reuse criteria makes it very difficult for the affected community to anticipate the potential impacts since it will be impossible to forecast the volume of material subject to reuse, as well as the environmental and human health effects.

While the attached spreadsheet expands on these points in more detail, we ask that DOEE seek to expedite completion of these beneficial reuse criteria to the extent possible. When DOEE releases these updated criteria for comment, we also ask that DOEE:

(a) Release its best estimate of the volumes of treated sediment likely to be available for reuse, and in what form (e.g. wetlands, upland fill); and

(b) Specify where such sediment will NOT be available for reuse (e.g. playgrounds, community gardens) given the paucity of data about the long-term effectiveness of activated carbon treatment on PCB mobility in those settings. Also, specify how beneficial reuse will be adapted to meet the reuse criteria adopted after the public comment period, including the possibility that reuse will be rejected.

This additional information and opportunity for public comment will be important in assuring community acceptance of the remedial approach, which is one of the factors spelled out for the proper choice remedial action pursuant to the National Contingency Plan. 40 C.F.R. Section 300.430(e)(9)(iii)(I), 300.430(f)(1)(i)(C).

## III. Climate Resilient Design Criteria.

The 30% BODR reportedly uses the 24-hour, 100-year storm as the basis to forecast flood flows, erosion, and bottom scouring for the remedial work. That approach is conservative and consistent with data showing the increasing frequency of intense storms driven by higher temperatures and atmospheric moisture.

We support this approach as prudent and appropriate, and urge that future design work in this long-term project use the most up-to-date data possible, given the substantial likelihood of temperature increases over the next ten to twenty years, and with those increases, the increased likelihood of storms more intense than reliance on older data will predict. Such updates are essential for the remedy to remain effective in the face of more intense storms.

## IV. Corps of Engineers Liability for Kingman Lake Contamination.

One of the Kingman Lake Early Action Areas was greatly expanded from what was first proposed. DOEE expanded the area for such early action based on sampling data showing much wider and more severe PCB contamination. The area is now 11 acres shore-to-shore.

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The PDI notes that the materials placed there were dredged by the Corps from the mainstem of the Anacostia River and placed in Kingman Lake. This history strongly suggests that the Corps is thus a major potentially responsible party for Kingman Lake, and so, potentially, is any party that contaminated the dredged area of the mainstem with PCBs. Given these undisputed facts, we strongly urge that DOEE designate the Corps of Engineers as an additional potentially responsible party for this cleanup work. We urge this because there appears to be no dispute about the placement of that contaminated dredge spoil in Kingman Lake by the Corps.

## V. Detailed Technical Comments.

Please see attached to this letter a one-page spreadsheet of detailed technical comments for DOEE's consideration, addressing specific statements and sections of these reports and documents.

We appreciate the opportunity to comment on these important documents and remedial choices, and look forward to continued constructive work with DOEE to help clean up the Anacostia River and restore its use as an important public recreational and environmental asset to this community, particularly to people who live east of the river.

Respectfully submitted,

Vanessa-Batters-Thompson
Executive Director
DC Appleseed Center for Law and Justice
vbattersthompson@dcappleseed.org

DC APPLESEED

Chris Weiss
Executive Director
DC Environmental Network
cweiss@dcenvironmentalnetwork.org

DC ENVIRONMENTAL NETWORK

Christopher E. Williams
President and CEO
Anacostia Watershed Society
cwilliams@anacostiaws.org

ANACOSTIA WATERSHED SOCIETY

Trey Sherard
Riverkeeper
Anacostia Riverkeeper
trey@anacostiariverkeeper.org

ANACOSTIA RIVERKEEPER®

| Section | Page | Comment |
|---|---|---|
| Executive Summary | ES-2 | The report describes channels that will be dredged within Kingman Lake, both within and outside of the early action areas (EAA), to facilitate small boat navigation. While we suppo inclusion of these elements into the remedial action, the process by which the non-EAA components were selected should be clearer. The text indicates that these channels were i so the contaminated material that is removed or exposed at the surface can be addressed along with the other dredged material by a remediation contractor experienced in this ty work. There are many other areas outside the EAAs in the Anacostia study area where dredging to improve boating access could be appropriate. Contaminated sediments may also some of these areas. Please provide additional explanation for how/why the Kingman Lake channels were added to the remedial action. Since the channels that are outside the EA not described in the interim record of decision (IROD), is there a need for another Explanation of Signficant Differences? |
| 4.3.2 | 20 | The report indicates that an existing Fort Dupont Creek restoration project will likely have a direct impact on Reach 456 EAA R4546-2. Please provide more information on how this will impact the plan for this EAA. The impact should be accounted for in the basis of design for this EAA |
| 5.4.2 | 26 | What activities are associated with the expected larger flood basin and depth of water over the the upland areas between Kingman Lake and the Main Stem, and over the upland a between Washington Channel and Kingman Lake? Are these activities certain to happen, such that it is appropriate to include them in the basis of design |
| 5.6 | 27 | How will the need for a cultural survey be determined? |
| 5.1 | 36-40 | The results from the treatability studies are encouraging with respect to the ability of various carbon amendments to reduce polychlorinated biphenyl (PCB) concentrations. The re actions described in this report is heavily reliant on implementation of these treatment technologies. While the treatability study results support the use of these technologies, fiel do not always match the results from treatability studies. Accordingly, we recommend that you describe contigency plans that would be implemented in the event that PCB reduct are not met in areas where these amendments are placed. |
| 6.1.8 | 47-48 | This section references the Department of Energy and Environment's (DOEE) draft beneficial reuse guidance. Comments made on that draft document have not yet been addresse revised version of the document that has been released to the public. In addition, beneficial use guidance prepared by the U.S. National Park Service (NPS), in the form of a letter s Donna Davies (NPS) to Dev Murali (DOEE), has not been made public. Accordingly, it is not possible to practically evaluate how the remedial action will interpret the feasibility of be use. Revised guidance prepared by DOEE and the guidance prepared by NPS should be made available for public review as soon as possible.<br><br>There are significant areas of uncertainty around the use of numeric concentration thresholds in the draft beneficial use guidance. For example, the human health sediment thresh PCBs is 100 ppb for Category 1 and 600 ppb for both Categories 2 and 3. If the PCB concentration was 500 ppb, for example, how would a decision between Categories 2 and 3 be n the PCB concentration was over 600 ppb, would aquatic placement with a cap be allowed? Another numeric threshold example that has significant implications about the feasibilit beneficial reuse is for arsenic. The Category 1 human health threshold is 0.11 ppm and the Category 2 threshold is 3 ppm. Given that the Anacostia River Sediment Project (ARSP) s background threshold value for arsenic (Table 3.7 in the draft beneficial use guidance) is 9.0 ppm, application of the existing Category 1 and 2 thresholds for arsenic would appear t it infeasible for any aquatic placement of dredged material to occur. All of the arsenic results provided in the Preliminary Design Investigation (PDI) report (Appendix B, Attachment exceed the Category 1 threshold and almost all exceed the Category 2 threshold. The incongruities and uncertainties associated with the draft beneficial use guidance should be re part of the remedial design. |
| 6.1.8.4 | 48 | The report indicates that off-site disposal may be required for dredged material with average contaminant of concern (COC) concentrations greater than 676 µg/kg, based on discu with NPS. By "COC", do you mean PCBs? Since this concentration threshold is an imporant element for remedial design, additional information on the derivation of this value shoul provided. Rather than referencing "discussions with NPS", we believe the correct reference would be the 2018 document "NPS Protocol for the Selection and Use of Ecological Scre Values for Non-radiological Analytes." |
| 6.5.5 | 54 | Describing a minimum of 2 inches of sand for Kingman Lake as "armoring" seems inappropriate. Presumably this figure is based on the fact that currents in this area are expected t If that is the basis of this remedial design component, it should be discussed here. Would 2 inches of sand remain in place in the face of a 100-year storm? |
| 12.4 | 67 | What are the requirements for a special use permit issued by NPS? |
| Table 6.4 | pdfp 124 | The draft beneficial use guidance contains many human and ecological screening criteria. It is not clear why a small subset of these criteria are included in this table. A better approc would be to summarize the various thresholds for all the COCs in a single table, not just the U.S. Environmental Protection Agency (EPA) screening levels for upland beneficial use placement. Why aren't total PCBs included in this table? Furthermore, some of the provided values are incorrect. The screening criterion for dioxin is 0.0048 µg/kg, not 4.8 µg/kg. A screening criterion for arsenic is 0.68 mg/kg, not 0.68 µg/kg. |
| App B, 2.5 | pdfp 157 | One of the stated goals for the Preliminary Design Investigation work was to determine whether the in-situ contaminant concentrations support beneficial use of dredged material sediment samples were analyzed for an extensive list of contaminants, as shown in Table 3.6 A, but the results of these analyses, other than PCB congeners, are not discussed in th The PDI report does not provide an analysis of the sediment chemistry data in the context of the stated goal of evaluating the feasibility of beneficial use. Many of the sediment sar were analyzed for only a subset of the chemicals shown on Table 3.6 A, so it isn't clear how decisions about beneficial use will be made given these data gaps. Will additional chem characterization of dredged material be conducted after material is dredged or will the decisions regarding beneficial use be made using the PDI data? |