



**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION 10**

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May 4, 2020

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Re: EPA Response to Comments Submitted after the Close of the Public Comment Period Pursuant to 40 CFR § 300.825.

Dear Messrs. Dunn and Christianson:

In a March 9, 2020, letter to the U.S. Environmental Protection Agency (EPA) Administrator Andrew Wheeler, Schnitzer Steel Industries, Inc.; Evraz Inc. NA; Gunderson, LLC; and Vigor Industries, LLC (hereinafter the “Companies”) submitted comments after the close of the public comment period (for the Portland Harbor Superfund Site (Site) Record of Decision (ROD) (hereinafter referred to as Post-ROD Comments) pursuant to the National Oil and Hazardous Substances Contingency Plan (NCP), 40 C.F.R. § 300.825(c). Administrator Wheeler has asked me to respond on his behalf. The Companies requested that the EPA, in its substantive response to the provided comments, modify the selected remedy described in the ROD, among other things. The purpose of this letter is to summarize the EPA’s review of the Post-ROD Comments and respond to the Companies’ requests.

EPA Review of Post-ROD Comments

The Post-ROD Comments include information that existed prior to the ROD that was available during the public comment period (Pre-ROD Data), data collected after the ROD was issued, and the Companies’ interpretations of the data.

Pre-ROD Data

Much of the Pre-ROD Data presented in the Post-ROD Comment letter is addressed and discussed in the Site ROD Administrative Record (AR). This includes, but is not limited to, the fish consumption rates and their basis in the baseline human health risk assessment (BHHRA); calculation and determination of background concentrations in the remedial investigation (RI); the development and evaluation of alternatives in the feasibility study (FS); and the Site ROD. The summary of these issues and how they are addressed in the ROD is included in the 2012 final BHHRA dispute resolution (AR document #715198);

the 2015 RI background dispute resolution (AR document #500011627); the 2016 final FS dispute decision (AR document #100036126); the 2016 EPA responses to the final FS dispute issues (AR document #100036161); and the 2017 ROD responsiveness summary (AR document #100036257). The Companies' submission also includes assertions that the EPA's remedy selection process was arbitrary and capricious based on information contained in the AR as well as documents obtained through the FOIA process.¹

Data Collected Post-ROD During Pre-Remedial Design Investigation and Baseline Sampling

The post-ROD data and much of the related information contained in the Companies' Post-ROD Comments were provided to the EPA previously by two of the Companies under an Administrative Settlement Agreement and Order on Consent (ASAOC) for Pre-Remedial Design Investigation and Baseline Sampling, EPA Docket No. 10-2018-0236, effective December 19, 2017 (Pre-RD Group). The Pre-RD Group analysis and conclusions, along with various requests to modify the remedy, have been discussed in several meetings with both Regional and Headquarters officials, including the Administrator, for over nine months.² Over the past year, the Pre-RD Group submitted a Footprint Report, PDI Evaluation Report, and multiple supplemental memoranda to the EPA that identified the same issues as those in the Post-ROD Comment letter. Most of the issues raised in the Post-ROD Comment letter not already addressed by the ROD AR were considered, reviewed, and addressed by the EPA in the following documents:

- EPA Review Comments on Pre-Remedial Design Footprint Report, comments dated February 20, 2019;
- EPA Response to Integral Consulting, Inc. Memorandum, *Response to EPA Question 1*, response dated September 6, 2019;
- EPA Response to Integral Consulting, Inc. Memorandum, *Portland Harbor PDI; fish tissue-sediment relationship exploration*, response dated September 6, 2019 and supplemental figures;
- EPA Review Comments on PDI Evaluation Report and Acoustic Fish Tracking Study 12-Month Addendum, comments dated September 12, 2019;
- EPA Assistant Administrator Susan Bodine and Region 10 Regional Administrator Chris Hladick letter to the Pre-RD Group (EPA response to the February 3, 2020 and February 5, 2020 Pre-RD Group memos), dated March 2, 2020.

¹ Section V, March 9, 2020 Request for Modifications to the Portland Harbor Selected Remedy.

² Including July 24, 2019: R10 hosted meeting with Pre-RD Group in Portland to discuss data and report; September 20, 2019: HQ hosted meeting with Pre-RD Group to discuss EPA comments on PDI Evaluation Report; November 15, 2019: HQ hosted meeting between Pre-RD Group and Administrator Wheeler; December 9, 2019: R10 hosted meeting with Pre-RD Group to discuss EPA data evaluations with the PDI data; January 9, 2020: HQ hosted meeting with Pre-RD Group to discuss EPA data evaluations with PDI data and Pre-RD Group's ESD proposal.

Data Not Previously Provided to EPA Prior to March 9, 2020

EPA's assessment of the new technical information in the Post-ROD Comment letter (related to the Companies' request for revising the ROD RALs for the focused COCs) is included in the attached enclosure.

Record Requirements after Remedy Decision Is Signed

The NCP, at 40 CFR § 300.825, describes record requirements after the decision document is signed. Under 40 CFR § 300.825(a), adding documents to the record is permitted where:

1. The documents concern a portion of a response action decision that the decision document does not address or reserves to be decided at a later date; or
2. An explanation of significant differences required by § 300.435(c), or an amended decision document is issued, in which case, the explanation of significant differences or amended decision document and all documents that form the basis for the decision to modify the response action shall be added to the administrative record file.

Under 40 CFR § 300.825(c), an agency is required to consider and add to the administrative record file comments received after the public comment period has closed where:

1. The comments contain significant information;
2. The new information is not contained elsewhere in the administrative record file;
3. The new information could not have been submitted during the public comment period; and
4. The new information substantially supports the need to significantly alter the response action.

Neither set of criteria are met by the Post-ROD Comment letter because the EPA has determined that the Post-ROD Comments do not substantially support the need to significantly alter the Portland Harbor Superfund Site remedial action as set out in the ROD.³ Therefore, such information will not be added to the AR file.

As stated in previous correspondence, the EPA anticipates that the Pre-RD data will be used, in addition to existing and forthcoming design-level data, to inform implementation of the ROD, including the delineation of the sediment management areas requiring active remediation and the selection of the appropriate remedial technology. Additionally, all the reports and information submitted to the EPA by the Pre-RD Group, and this Post-

³ Additionally, several issues raised in the Post-ROD Comment letter are not new or significant in that they relate to information either in the ROD AR or to information that could have been submitted during the public comment period.

ROD Comment letter from the Companies, are Site-related documents that will be filed and kept in the Portland Harbor Site file.

Sincerely,

CHRISTOPHER HLADICK Digitally signed by
CHRISTOPHER HLADICK
Date: 2020.05.04 08:48:20
-07'00'

Chris Hladick
Regional Administrator

Enclosure

Enclosure 1: EPA Response to New Technical Information in Post-ROD Comments

This document and supplemental figures serve as the U.S. Environmental Protection Agency's (EPA's) technical response to the new information not previously submitted to the EPA prior to the March 9, 2020 letter *Petition for Modification to Portland Harbor Selected Remedy*. This response is enclosed with "EPA Response to Comments Submitted after the Close of the Public Comment Period Pursuant to 40 CFR § 300.825", dated May 4, 2020 (EPA letter).

New Technical Information in the Post-ROD Comment Letter

During review of the Post-Record of Decision (ROD) Comment letter, the EPA identified the following post-ROD technical information that had not been previously submitted to the EPA:

1. Modification to the proposed remedial action levels (RALs) from the Pre-Remedial Design (Pre-RD) Group's November 19, 2019¹ and January 22, 2020² explanation of significant differences (ESD) proposals
2. Two plots (Figures 1 and 2) presenting the post-construction rolling river mile (RRM) surface area weighted average concentrations (SWACs) as a density distribution and rank order concentrations

The following paragraphs identify and discuss these modified and/or new technical analyses that had not been previously provided.

Modifications to the Proposed RALs

The Pre-RD Group's November 19, 2019 ESD proposal requested that the EPA modify the ROD with an ESD using the RALs presented in the Pre-RD Group's PDI Evaluation Report. The EPA provided its assessment of the Pre-RD Group's PDI Evaluation Report RALs in the EPA review comments document dated September 12, 2019.³ The Pre-RD Group modified their requested RALs in a second ESD proposal on January 22, 2020 by changing their RAL for total polychlorinated biphenyls (PCBs) from 350 to 200 micrograms per kilogram ($\mu\text{g}/\text{kg}$), which is equivalent to the Alternative E RAL for total PCBs presented in the 2016 Portland Harbor Superfund Site (Site) feasibility study (FS).⁴ The EPA provided its assessment of the modified ESD approach in its March 2, 2020 letter addressing the February 3 and 5, 2020 memoranda

¹ Pre-RD Group. November 19, 2019. "Proposal for Focused Updates to the Portland Harbor Remedy Based on New Data from the Pre-Remedial Design Investigation."

² Pre-RD Group. January 22, 2020. "Pre-RD Group Explanation of Significant Differences (ESD) Approach."

³ EPA. 2019. "EPA Review Comments on PDI Evaluation Report and Acoustic Fish Tracking Study 12-Month Addendum."

⁴ EPA. 2016. *Portland Harbor RI/FS: Feasibility Study*. Seattle, Washington: EPA Region 10.

from the Pre-RD Group.⁵ The Post-ROD Comment letter presents a third ESD proposal and is discussed below.

The Post-ROD Comment letter modifies the previous two ESD proposals from the Pre-RD Group by proposing that the ROD RAL (160 µg/kg) for dichlorodiphenyltrichloroethane and its derivatives (DDx) be applied to the river mile (RM) 7W sediment decision unit (SDU) “out of conservatism” while the proposed pre-remedial design investigation (“PDI”) RAL for DDx (578 µg/kg) be applied to the remainder of the Site. Compared to the prior two proposals, this proposal reverts to the ROD’s DDx RAL in only one SDU (RM 7W), so the EPA’s review, analysis, and conclusions on areas outside of RM 7W have not changed compared to previous responses.⁶ The RM 7W SDU is the primary DDx source at the Site and the ROD RAL should be applied in this area. The RAL proposal in the Post-ROD Comment letter is therefore consistent with the ROD on this aspect. However, the Post-ROD Comment letter does not provide any new technical justification for why the proposed PDI DDx RAL is appropriate in other areas beyond the assertion that the RALs should be updated to leave more contamination in place as Site conditions have substantially improved. This assertion that the Site conditions have substantially improved was addressed in the EPA’s previous responses as well as the EPA letter which found that the current Site conditions are reflective of assumptions made in the ROD and that the ROD RALs are still appropriate. The EPA’s previous comments and response documents addressing previous RAL change requests and listed in the EPA letter adequately summarize the EPA’s consideration and assessment on the Post-ROD Comment letter’s RAL proposal.

Post-Construction SWAC Analyses

The Post-ROD Comment letter provides two new plots (Figures 1 and 2) which estimate the post-construction SWACs by RRM for the ROD Selected Remedy⁷ and the “PDI ESD Approach.”⁸ These figures are a modified presentation of the RRM SWACs presented by the Pre-RD Group in its February 5, 2020 memorandum, which provided tables and plots comparing the Pre-RD Group’s sediment management area (SMA) mapping dataset to the 2018 PDI dataset. On page 28, the Post-ROD Comment letter misstates that the EPA ignored the Pre-RD Group’s post-construction RRM SWAC analysis that was provided to the EPA in its February 5, 2020 memorandum. EPA reviewed those analyses, and in its March 2, 2020 letter stated “[t]he EPA’s

⁵ Bodine, Susan Parker and Chris Hladick. March 2, 2020. (Assistant Administrator, EPA Office of Enforcement and Compliance Assurance, Washington, D.C. and Regional Administrator, EPA Region 10, Seattle, Washington). Letter to the Pre-Remedial Design Group, c/o Mr. Rich Gold of Holland & Knight, Washington, D.C.

⁶ September 12, 2019 EPA review comments on PDI Evaluation Report and March 2, 2020 letter discussing the Pre-RD Group’s February 3 and 5, 2020 memoranda.

⁷ Footnote 127 in the Post-ROD Comment letter is incorrect and references the post-construction SDU SWACs in the ROD, not the RRM SWACs. EPA is assuming in its analysis that the data series “ROD Alt F Mod Remedy” included in Figures 1 and 2 in the Post-ROD Comment letter are in fact the ROD post-construction RRM SWACs rather than the SDU SWACs.

⁸ The term “PDI ESD Approach” refers to the name of the data series presented in Figures 1 and 2 in the Post-ROD Comment letter and is assumed to represent a combination of data and RALs. The “PDI ESD Approach” is not explicitly described in the Post-ROD Comment letter, but the EPA has assumed that it is comprised of the proposed PDI RALs in Section IV.A.3 (Pp. 11–12) and the Pre-RD Group’s SMA mapping dataset.

evaluation of the rolling river mile SWACs also leads to the same conclusions as discussed above for the sediment decision unit SWAC estimates.”

Post-ROD Comment Letter Analyses and EPA Interpretation

Figures 1 and 2 on page 29 of the Post-ROD Comment letter present post-construction RRM SWACs for total PCBs for the ROD Selected Remedy and the “PDI ESD Approach” in a density plot and rank order plot format. The river mile average depicted in Figures 1 and 2 is the average across the entire river, not one side of the river as evaluated by the EPA in the ROD’s residual risk analysis (ROD Appendix IV, Appendix J). The density plot, Figure 1, shows the distribution of post-construction RRM SWACs for the ROD Selected Remedy and the “PDI ESD Approach.” It shows that the highest proportion of post-construction RRM SWACs for the “PDI ESD Approach” are near the total PCBs riverbank soil/sediment cleanup level (CUL) of 9 µg/kg while those for the ROD Selected Remedy are at approximately 20 µg/kg. Additionally, there is a lower density of higher total PCB concentrations in the “PDI ESD Approach” compared to the ROD Selected Remedy. The larger number of RRM with lower concentrations represents the natural recovery that has occurred in the Site since the RI/FS data were collected. This result is consistent with the site’s CSM that natural recovery is occurring and is anticipated to occur.

The rank order plot, Figure 2, arranges the data by concentration from the highest post-construction RRM SWAC total PCB concentrations to the lowest. This ranking shows that for the “PDI ESD Approach” post-construction RRM SWAC total PCB concentrations, there is a higher ROD Selected Remedy post-construction RRM SWAC total PCB concentration in the same position. This analysis suggests, similarly to Figure 1, that the post-construction RRM SWACs for total PCBs for the “PDI ESD Approach” are lower than the ROD Selected Remedy.

However, as mentioned, Figures 1 and 2 in the Post-ROD Comment letter average concentrations across the different Site regions (east shoal, west shoal, navigation channel, and Swan Island Lagoon). Therefore, the post-construction RRM SWACs in Figures 1 and 2 contain large areas of the Site that: (1) are not PCB contamination focus areas; and (2) have monitored natural recovery (MNR) as the selected remedial technology with no active remediation. By aggregating the Site regions in the density distribution and rank order analyses, Figures 1 and 2 do not present an appropriate comparison of the effects of the ROD RAL (75 µg/kg) versus the proposed PDI RAL (200 µg/kg) for total PCBs.

Additionally, the interpretation in the Post-ROD Comment letter is not relevant to the framework or application of the ROD, which accounted for natural recovery occurring subsequent to the issuance of the ROD and prior to remedial design. The ROD states that “[p]ost-ROD sampling will be conducted to support remedial design and to refine the CSM. This updated information

will be used for design/construction.”⁹ The ROD additionally accounts for changes in land use and how that could impact remedial technology selection.¹⁰

Therefore, Figures 1 and 2 present a misleading conclusion that the “PDI ESD Approach” is more protective than the ROD Selected Remedy at the RRM scale by removing the spatial component of the RRM. As discussed in the RI, FS, and ROD, the distribution of the contaminants of concern at the Site is spatially heterogeneous and dependent on smaller-scale spatial characteristics such as depositional and erosional dynamics, contaminant sources and distributions, upland source control measures, and previous removal actions performed. The spatial component of the RRM is fundamentally important to evaluating small spatial area change at this scale and is therefore required for a complete evaluation.

EPA Analyses

The EPA specifically developed RRM plots for total PCBs that segregate the Site spatially by east shoal (EPA Figure 1a), west shoal (EPA Figure 1c), and navigation channel (EPA Figure 1b) as these are three distinct geomorphic regions of the lower Willamette River; Swan Island Lagoon is a fourth distinct geomorphic region of the Site that is not shown on the subsequent EPA RRM plots.¹¹ These plots show post-construction RRM SWACs for total PCBs, comparing the RI/FS data (ROD and 2019 ESD¹² RALs applied) to the PDI SMA mapping dataset (proposed PDI RALs applied). Three panels are included in the supplemental figures that segregate the RRM SWACs by east shoal, west shoal, and navigation channel. These figures show that for 6 of the 7 PCB contamination focus areas (excluding Swan Island Lagoon which is the eighth PCB contamination focus area), the post-construction RRM SWACs for the PDI SMA mapping dataset (proposed PDI RALs) are higher than those estimated with the RI/FS data (ROD and 2019 ESD RALs). The one PCB contamination focus area whose post-construction RRM SWACs are lower, RM 4.5E, is an off-channel bay and two slips where multiple removal actions and maintenance dredging operations have been performed, and substantial sediment deposition has occurred since the RI/FS data were collected (EPA Figure 1a). EPA Figure 1a also shows that the RM 2E area has only modestly higher (approximately 2 µg/kg) post-construction RRM SWACs in the PDI SMA mapping dataset compared to the RI/FS data. However, at RM 2E the navigation channel is narrow relative to the entire channel width and greater than 50 percent of the east shoal is outside of the SMA (i.e., selected for MNR) and is consistently depositional.

⁹ EPA. 2017. Record of Decision, Portland Harbor Superfund Site, Portland, Oregon. Seattle, Washington: EPA Region 10. Pp. 106.

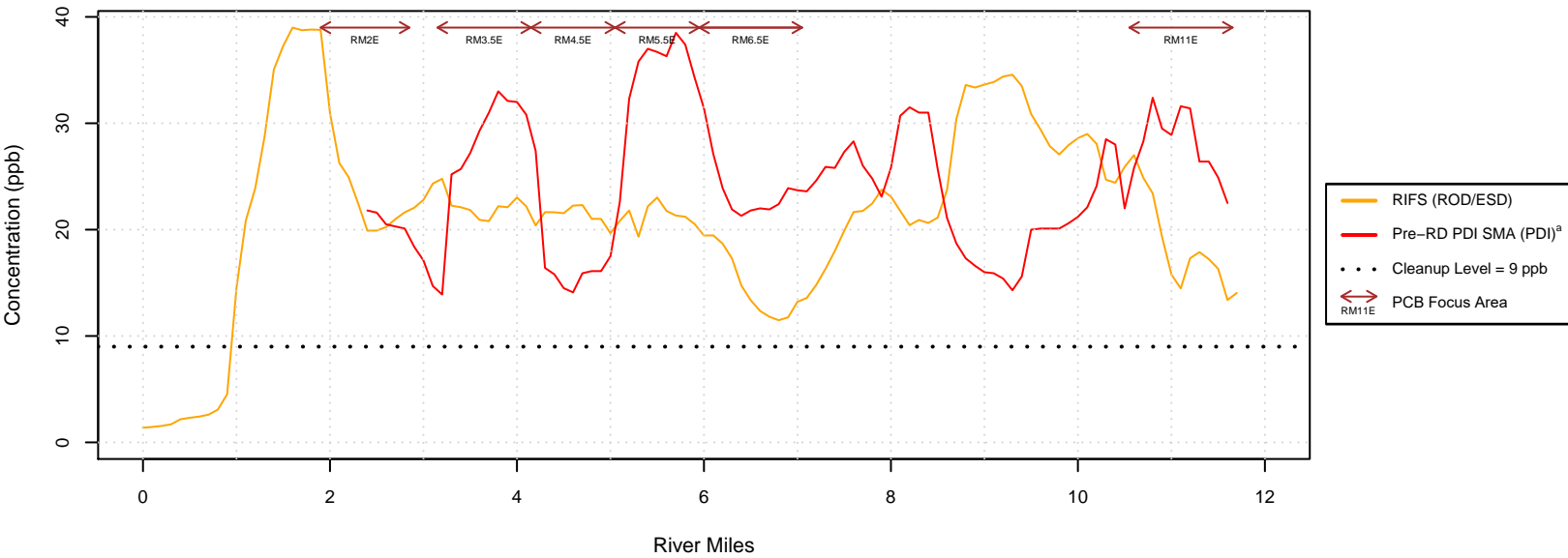
¹⁰ Pp. 106: “To ensure that the correct reasonably anticipated future uses are used for the remedial design, these assumptions will be verified and will be altered, as appropriate. For example, eliminating the need for a more expensive dredge and armored cap remedy if a significant area will no longer be used for marine terminal purposes.”

¹¹ The post-construction RRM SWACs for total PCBs for Swan Island Lagoon are not shown in the enclosure because enhanced natural recovery is applied in this area and therefore greatly diminishes the difference between the post-construction RRM SWACs when comparing the ROD and proposed PDI RALs.

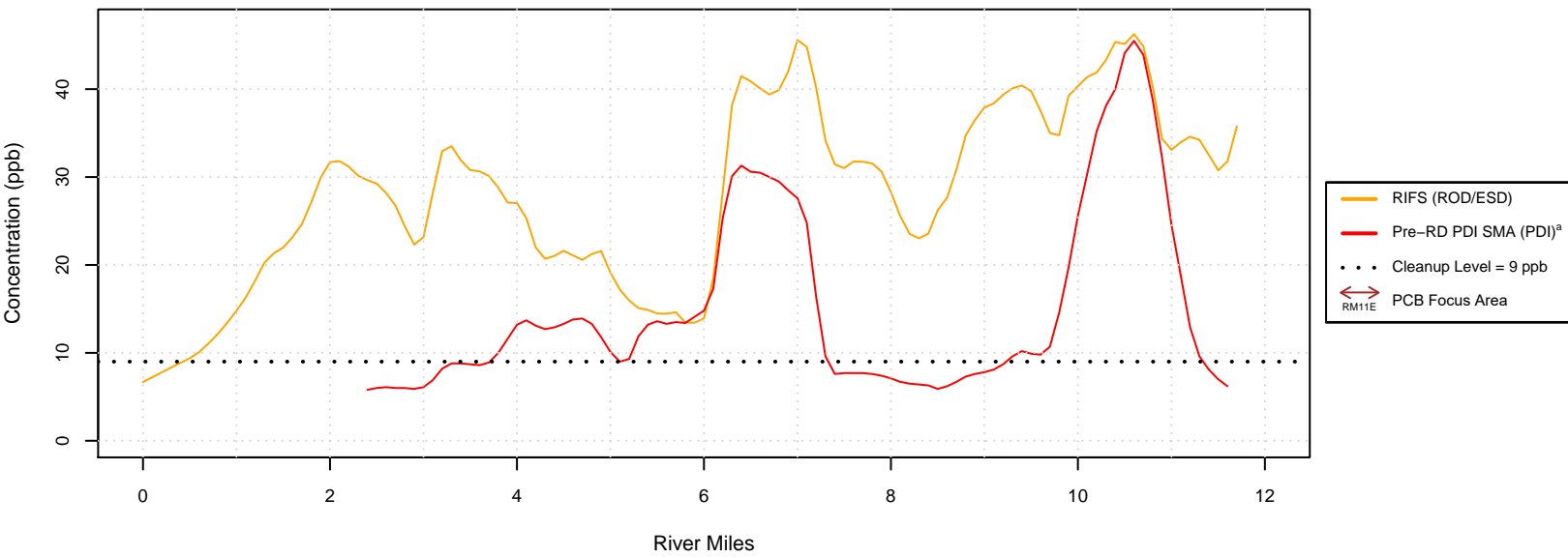
¹² EPA. 2019. *Explanation of Significant Differences, Portland Harbor Superfund Site, Portland, Oregon*. Seattle, Washington: EPA Region 10.

The other PCB contamination focus areas have post-construction RRM SWACs ranging from approximately 5 to 20 $\mu\text{g}/\text{kg}$ higher when applying the proposed PDI RALs. The EPA's post-construction RRM SWAC analysis corroborates its post-construction SDU SWAC analysis (presented in the March 2, 2020 letter and shown as EPA Figure 2 in this enclosure), which suggests that the proposed PDI RALs result in higher post-construction SWACs compared to the ROD and 2019 ESD RALs. As a result, these higher post-construction SWACs, resulting from the proposed PDI RALs, represent more residual risk after remedial action and a longer period of natural recovery to attain the total PCBs riverbank soil/sediment CUL.

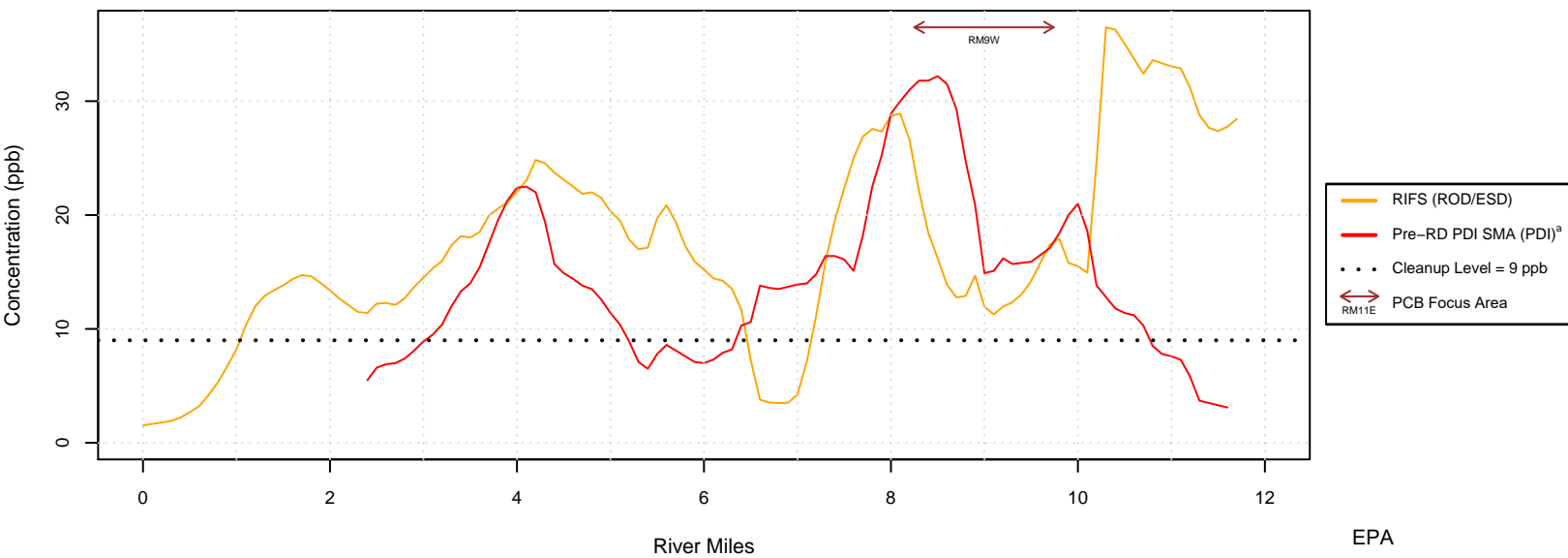
EPA Figure 1a. Post-Construction (t=0) Surface Sediment Concentrations for Total PCBs, East Shoal, Rolling Average 1 Mile



EPA Figure 1b. Post-Construction (t=0) Surface Sediment Concentrations for Total PCBs, Navigation Channel, Rolling Average 1 Mile



EPA Figure 1c. Post-Construction (t=0) Surface Sediment Concentrations for Total PCBs, West Shoal, Rolling Average 1 Mile



a: The PDI SMA dataset contains the 2018 PDI data and the R/FS data excluding R/FS samples within 100 feet of a 2018 PDI location

EPA Figure 2. Post-Construction (t=0) Surface Sediment Concentrations for Total PCBs, Sediment Decision Units

SDU Post-Construction SWACs – Total PCBs

