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- 1. Please provide a figure that shows the boundaries of the Parker Street Waste Site. This should be based upon both the area of filling and where PSWS contamination has come to be.**

Figure 2-1 will be revised to indicate that the PSWS boundary includes both filled areas and areas where impacts have come to be located.

- 2. Please describe any uncertainties related to the definition of the Site boundaries.**

The Parker Street Waste Site and surrounding neighborhoods have been subject to substantial site investigation and remediation activities, by both the City and regulatory authorities including MassDEP and EPA. A detailed lines-of-evidence approach was used to develop the Conceptual Site Model (CSM) and establish the Disposal Site boundary. These individual lines-of-evidence include physical surface and subsurface conditions, chemical and forensic signatures in various environmental media, and historical records and documents, as well as historical photographs and maps. These multiple lines of evidence have aligned and have helped the City establish the CSM presented in the Phase II document. The City has a great deal of confidence in the current definition of the Disposal Site boundary and, although relatively minor modifications to the boundary may result from potential future response actions within select portions of the Disposal Site (e.g., Durfee Street Wetland), the combination of both significant physical and cultural features (e.g., Oak Grove Cemetery) and the multiple lines-of-evidence supporting the CSM indicate that the boundary will not change significantly.

- 3. Please explain why the Durfee St wetland boundary is inferred and not delineated.**

The Durfee Street Wetland boundary had inadvertently included a portion of the wetland that was not impacted by the PSWS disposal site. TRC revisited the interpretation that led to the drawing of the inferred line and has determined that the dashed line can be removed and the solid orange line established between EPA samples P-025-SED-12 and P-025-SED-14 (southeast of sample point P-025C presently illustrated on Figure 1-2). This will result in the removal of the “inferred” area.

- 4. Please provide a figure illustrating the sampling locations that define the PSWS boundaries.**

Please refer to the response to Comment 2. Individual lines of evidence have been reviewed and combined in the evaluation of the PSWS boundaries. The definition of the PSWS boundaries is not based on a single line of evidence, but rather on the discernment of multiple lines of evidence.

Figures have been provided in the report (Figures 3-1 through 3-12) that indicate the PSWS Boundary relative to sample locations. As noted, the PSWS boundary is not solely based on sample locations, and is based on multiple lines-of-evidence. These individual lines-of-evidence, include physical surface and subsurface conditions, chemical and forensic signatures in various media, and historical documentation.

- 5. Please add the referenced addresses to the private properties on the figures.**

The figures will be annotated accordingly.

6. Please provide a table in the executive summary listing the nine properties/Areas that have achieved a Condition of No Significant Risk.

A risk summary table (attached) has been prepared for the Executive Summary to summarize the status of the 16 properties/areas included as part of the PSWS Phase II CSA submittal. Included on this table are the nine properties for which partial Permanent Solution Statements have been prepared, a tenth area that has achieved a Condition of No Significant Risk (the Rights of Way) as well as the 6 properties/areas for which remedial/closure activities are still underway. A Condition of No Significant Risk for current land use has been achieved for all 16 properties/areas. For the six properties/areas where a Condition of No Significant Risk has not been achieved for future foreseeable activities and uses, footnotes on the table briefly summarize the conditions preventing the achievement of No Significant Risk under future use conditions, and the table includes information relative to anticipated closure activities (e.g., excavation, Activity and Use Limitation, etc.).

7. Please provide a table listing the seven properties/Areas that have not achieved a Condition of No Significant Risk. This table should indicate whether NSR exists for current use along with a brief summary of the condition(s) preventing NSR currently and in the future.

A risk summary table (attached) has been prepared for the Executive Summary to summarize the status of the 16 properties/areas included as part of the PSWS Phase II CSA submittal. Included on this table are the nine properties for which partial Permanent Solution Statements have been prepared, a tenth area that has achieved a Condition of No Significant Risk (the Rights of Way) as well as the 6 properties/areas for which remedial/closure activities are still underway. A Condition of No Significant Risk for current land use has been achieved for all 16 properties/areas. For the six properties/areas where a Condition of No Significant Risk has not been achieved for future foreseeable activities and uses, footnotes on the table briefly summarize the conditions preventing the achievement of No Significant Risk under future use conditions, and the table includes information relative to anticipated closure activities (excavation, Activity and Use Limitation, etc.).

8. Please explain why there is the need for the distinction between “PSWS Disposal Site related fill material” and “detected chemical impacts ... associated with the mobilization and distribution of PSWS Disposal Site-related OHM.” (p.2-3). The Site is where contamination has come to be, not where it was placed.

Consistent with MCP definition (40.0006), the Disposal Site commonly referred to as the Parker Street Waste Site, is defined by the area where uncontrolled oil and/or hazardous material (OHM) has come to be located and includes both the deposition of Disposal Site-related fill material and chemical impacts that are associated with the mobilization and redistribution of PSWS Disposal Site-related OHM (i.e., where site related impacts have come to be located). The distinction noted by the commenter simply alerts the reader to a nuance within the CSM related to the unique depositional history and distinct primary fate and transport mechanisms that have influenced certain geographical portions of the Disposal Site. This is particularly true when considering the wetland locations within the

west-northwest portion of the Disposal Site relative to the developed portions of much of the Disposal Site. Much of the Disposal Site has been impacted by the direct deposition or physical redistribution of impacted fill material (outlined in yellow on Figure 1-2), and there is no direct evidence that Disposal Site-related fill material was placed within the current wetland areas. Nevertheless, these areas, denoted by orange outlining in Figure 1-2, appear to be impacted primarily by the mobilization/transport of chemicals of concern to the noted wetland areas.

9. Please explain why the dynamic surface water flow and sediment deposition during storm events in the KMS wetlands is no longer causing migration and recontaminating areas currently considered beyond the PSWS Disposal Site boundaries within the KMS wetland boundaries.

As noted in the Draft Phase II CSA, a canted culvert beneath Durfee Street currently provides an intermittent hydrological connection between the KMS Wetland and the downstream Durfee Street Wetland. Surface water flows exiting from the KMS Wetland via this culvert are only present on an intermittent basis (primarily during the spring and after large storm events) and due to the negative slant to the culvert itself.

The wetland investigation activities conducted by Weston Solutions, Incorporated (Weston) on behalf of the EPA north of the KMS wetland (i.e., Durfee Street wetland and Potter Street) are presented in the Draft Phase II CSA. While impacts have been detected in the Durfee Street wetland, sediment sampling further to the north indicates limited detections of PAHs, PCBs and metals. Select PAHs (benzo(a)anthracene, benzo(a)pyrene, chrysene, fluoranthene, and pyrene) and one metal (lead) were detected at concentrations that exceeded the sediment screening criteria; however, PCBs were not detected in excess of either the sediment screening criteria or the MCP Method 1 S-1 standards and affirm limited impact attributable to intermittent outfalls from the KMS wetland. In addition, the soil sample results from the Potter Street parcel were determined by MassDEP to constitute a Condition of No Significant Risk for both current and foreseeable future use for soil located between 0 to 3 feet and 3 to 12 feet below the ground surface and that no further action was necessary.

So while PCB impacts potentially attributable to the KMS wetland can be discerned in the Durfee Wetland, the associated contaminant migration mechanism would be sediment transport. Both the KMS and the Durfee wetlands are heavily vegetated, which would work to limit resuspension of sediment in the wetland and filter out sediment that potentially could get re-suspended in should a dynamic surface water flow event occur and be subject to migration. In addition, wetlands are generally low energy environments meaning surface water velocities are low and tend not to mobilize sediment. This combined with the canted outfall indicates that ongoing discharge(s) from the KMS wetland to the Durfee wetland would be intermittent and have a very localized impact (i.e., the Durfee Street wetland). The Durfee Street wetland appears to be acting as an effective sink of PCB impacts based on the data from the downstream Potter Street site.

10. Please state in each of the sections of subsection of 2.3.2, whether chemical testing results are available and whether these results support the aerial photo and topographic map conclusions. This is difficult to follow in the later discussions because they are separated.

Extensive chemical testing results are available throughout and beyond the boundary of

the Disposal Site, including the four geographic areas organizationally discussed in Section 2.3.2 (i.e., Northern, Eastern, Southern and Western boundaries, respectively), which are consistent with the aerial photograph and topographic mapping record, as well as the physical evidence, described throughout the Conceptual Site Model (Section 2.3) portion of the document. A notation to this effect will be added to subsection 2.3.2.

11. Please explain the scope of the wetlands investigations in light of the stream beds north of the Durfee St wetlands shown in the topographic maps beginning in 1941 (Appendix C) and the dynamic nature of sediment transport during storm events and flooding.

Historic topographic mapping, including the 1941 survey, indicate the presence of a stream discharging north from the northwest portion of the current KMS Wetland. As noted in the Draft Phase II CSA, a canted culvert beneath Durfee Street currently provides an intermittent hydrological connection between the KMS Wetland and the downstream Durfee Street Wetland. Surface water flows exiting from the KMS Wetland via this culvert are only present on an intermittent basis (e.g., spring time and/or after large storm events) and due to the negative cant to the drain itself.

To date, wetland investigation activities north of Durfee Street have been conducted by Weston Solutions, Incorporated (Weston) on behalf of the EPA. Detailed descriptions of activities performed by Weston are included in the Site Investigation Summary Reports for those properties identified by EPA as P-025-A, P-025-B, P-025-C and P-025-D. In addition, a discussion of the nature and extent of impacts identified in the Durfee Street Wetland by Weston/EPA is presented in Section 4.1.16 of the Draft Phase II CSA.

Weston also conducted site investigation activities north of Potter Street (i.e., north and further downstream of the Durfee Street Wetland) in May 2010 as described in the Site Investigation Summary Reports for those properties identified by EPA as P-034 (soil sampling) and P-035 (sediment sampling). Sediment sample results for P-035 indicated limited detections of PAHs, PCBs and metals. Select PAHs (benzo(a)anthracene, benzo(a)pyrene, chrysene, fluoranthene, and pyrene) and one metal (lead) were detected at concentrations that exceeded the sediment screening criteria; however, PCBs were not detected in excess of either the sediment screening criteria or the MCP Method 1 S-1 standards. In addition, based on the soil sample results from P-034, MassDEP concluded that a Condition of No Significant Risk exists for both current and foreseeable future use for soil located between 0 to 3 feet and 3 to 12 feet below the ground surface and that no further action was necessary. This information, including an apparent lack of Disposal Site-related impacts north of the Durfee Street Wetland, was considered in light of the current CSM for the Disposal Site and will help to guide potential future response actions by the City related to the Durfee Street Wetland.

12. Please explain why additional vertical delineation of PCBs in the Durfee Street Wetland are not required.

The report does not state that additional vertical delineation is not required in the Durfee Street Wetland. However, it is possible that additional remedial activities might include additional vertical delineation and/or vertical verification of impacts to the wetland to serve the purposes of the remedy, and will be determined as remedial planning is undertaken.

13. Please explain the difference in size between the Durfee St Wetland in the report

Figures and superimposed on the topographic maps in Appendix C.

Please refer to the response to Comment 3. The depictions of the Durfee Wetland in Appendix C will be aligned with the adjustment noted in Comment 3.

14. Please provide a reference for contaminants at PSWS being similar to those of industrial landfills. What concentrations are considered “elevated”? Why are dioxins/furans typical of industrial waste?

Historic dumping occurred in the vicinity of the current New Bedford High School campus and MassDEP’s list of Inactive & Closed Landfills & Dumping documents the Liberty Street Dump as inactive in 1955. It is commonly understood, without citation, that many hazardous and non-hazardous wastes, including PCBs and metals, are typical contaminants of concern in association with municipal and industrial landfills. Nonetheless, and independent of the City’s reporting, EPA’s Sampling and Analysis Plan (SAP) for the Parker Street Waste Site dated April 2010 documents the contaminants of concern related to the Parker Street Waste Site as PCBs, PAHs, and the metals. Noting PAHs are ubiquitous in developed or urban areas and therefore the presence of PAHs alone is not an indicator of the Parker Street Waste Site, EPA’s SAP states that PCBs and metals are the primary contaminants of concern and the main indicators that contamination originating from the original area of deposition is present at various locations.

Regarding dioxins/furans, please refer to the following documents, both of which are available on the City’s website dedicated to the Parker Street Waste Site, which affirm two key elements of the CSM: 1) PCBs are the only chlorinated dioxin/dibenzofuran precursor compounds at the Site. There was no other indication of the presence of any other chlorinated organic compounds with the potential to serve as chlorinated dioxin/dibenzofuran precursors based on available data for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and pesticides, and 2) There is an observable trend of increasing dioxin compound concentration with increasing total Aroclor concentration. Hence, the connection between dioxins/furans and industrial waste is indirect.

- Dioxin Evaluation for the Parker Street Waste Site (PSWS), New Bedford, Massachusetts, December 10, 2009
- Response to March 4, 2016 Comments to the Draft Partial Permanent Solution with Conditions for New Bedford High School Campus – Focus on Comment 4 Regarding the Presence of Dioxin and Adequacy of Investigation – June 16, 2016

15. Please describe the source(s) of dioxins at the PSWS. There is currently no reference to a historic burn dump that has been referenced in past PSWS documents and discussions. There is no reference to how dioxins came to be at the PSWS in the CSM.

Please see the response to Comment 14. Additional information will be added to the CSM regarding the origin of dioxins/furans at the PSWS.

16. Please explain why dioxins are not a COC for each of the 16 areas where PSWS Contamination has come to be. The absence of testing should not be a criterion for its exclusion given the correlation of dioxins to PCBs at PCB concentrations as low as 0.098 ppm (see TRC Memo dated June 2016).

Note that MassDEP considers PCB concentrations less than 1 mg/kg to be representative of background concentrations associated with historic fill. In addition, the Method 1 S-1 standard for dioxins (2E-05 mg/kg) is set at a level MassDEP considers to be a background concentration for natural soil. Soil data collected at the NBHS show a correlation between total PCB concentrations and dioxin TEQ concentrations in soils minimally impacted by PSWS fill material and suggests that when total PCBs concentrations are less than 1 mg/kg, the dioxin TEQ is less than 2E-05 mg/kg. Therefore, if total PCBs are present at background concentrations for historic fill, dioxins are also likely to be present at concentrations consistent with a background condition. Dioxin sampling has been conducted at properties/areas where PCBs are present at concentrations significantly above historic fill background concentrations (i.e., NBHS, ARP, Nemasket Street Lots), indicating that a source of dioxin precursors are present. The remedies for these properties/areas considers/will consider dioxins as well as other contaminants of concern. For the KMS campus, a cap and AUL protect against exposure to contaminants including dioxins, if present. For the five residential properties and the Liberty Street parcel that have undergone closure using a Method 1 or Method 2 approach, the portions of the properties with elevated PCBs have been excavated or PCBs were not present at significant levels (i.e., PCB exposure point concentrations for remaining soil are less than 1 mg/kg). In addition, carcinogenic PAHs do not remain at the properties/areas at concentrations greater than background concentrations suggesting that the processes necessary to convert PCBs to dioxins was not present in these areas. Similarly, for two of the non-residential properties that have not undergone dioxin testing (129 Hathaway Boulevard and 319 Hathaway Boulevard), surface soil exposure point concentrations of PCBs and carcinogenic PAHs are less than Method 1 standards, again indicating that significant precursor concentrations for dioxins are not present and that the combustion process did not occur in these area. Exposure to the subsurface soils, including to dioxins that might be present, will be controlled through the use of an AUL or further excavation/remediation will occur if an AUL is not used. For the remaining three properties/areas (KMS Wetland, Durfee Street Wetland, and 310 Hathaway Boulevard), remedial actions are under discussion, but the selected remedy will be protective of cumulative risk, including the potential for dioxins to be present. Finally, for the Rights of Way, because receptors with low exposure potential are evaluated (e.g., emergency utility workers), an exposure point concentration for dioxin TEQ would need to be extremely high (on the order of 0.002 mg/kg), for an unacceptable cumulative risk to occur. Based on dioxin TEQ data collected for the other properties, dioxin TEQs of this order have not been seen even in the worst-case areas.

17. Please explain why, in the absence of dioxin testing, that a conservative dioxin EPC is not included in the risk characterization calculations for each area where PSWS waste has come to be.

For the residential properties where a Method 1 or Method 2 approach was utilized for closure, low levels of PCBs (EPCs less than 1 mg/kg) remain in soil. As stated above, these residual concentrations of PCBs are consistent with background concentrations in urban soils. As such, although dioxins may be detected in the soil as a class of compounds found ubiquitously in the environment, their presence, if measured, is also considered a background condition since PSWS PCB impacts have been excavated or were not present at significant levels at the residential properties evaluated. The MassDEP background concentration for dioxin TEQ in natural soil is 2E-05 mg/kg, the value that MassDEP has adopted as the Method 1 S-1 standard for dioxin. For the non-residential properties where dioxin testing has not occurred (e.g., Hetland Rink, 129 Hathaway, 319 Hathaway),

total PCB EPCs are less than 1 mg/kg indicating by inference that the dioxin TEQ concentration would be consistent with the background concentration, an AUL will prevent residential development, exposure barriers (e.g., pavement) will prevent contact with impacted surface soils and/or a soil management plan will be used to guard against movement of subsurface impacted soil to accessible surficial locations. These remedial measures should guard against any risks associated with dioxins.

18. Please explain whether the presence/absence of PCBs is an indicator of PSWS impacts. This had been a stated criterion in the past.

As detailed in the Draft Phase II CSA and noted in these comment responses (e.g., Comment 2), a multiple lines-of-evidence approach has been used to evaluate the Disposal Site, including establishing the Disposal Site boundary. The CSM has evolved as the evaluation of the Disposal Site advanced; the presence of elevated concentrations of PCBs in soil has remained one indicator of the potential Disposal Site-related impacts. The presence or absence of PCBs alone does not necessarily distinguish potential Disposal Site impacts from those that are not Disposal Site-related (e.g., impacted fill material from other sources, atmospheric deposition, etc.) when divorced from other contributing lines of evidence. Therefore, detections of PCBs have been and will continue to be evaluated within a multiple lines-of-evidence framework.

19. For Durfee Street Wetlands, please explain why soil testing is not required given that contaminant migration is attributable to storm/flooding events and transported sediments may have been deposited in upland areas.

There is no indication that soils at the Durfee Street Properties have been impacted by the deposition of sediments in upland areas.

20. The inconsistencies and incompleteness of the data tables makes interpretation of conditions very difficult and must be remedied. For example:

a. in the Tables 4-3A as well as other tables appear to be missing data (no metals beyond Mg for example)

The tables include all analytes analyzed for and detected. Tables 4-3A, 4-3B, and 4-6 do not include any metals “beyond” magnesium as EPA/Weston analyzed soils/sediments for only the metals listed in the tables.

b. Why do the Tables associated with Section 4 all not reference the same published standards?

The tables have been revised to include the same referenced standards.

c. Why is RC S-1 noted with an * sometimes and not other times?

The RC S-1 standard has been removed from the tables as Reportable Concentrations are not relevant to a permanent solution statement.

d. Why is a standard for Al not included in all tables where Al was tested?

The Tables list published MCP standards. As there is no published standard for aluminum (and iron), there is not one listed.

- e. **Why are standards for compounds listed in some tables and not others. For example, individual aroclors in Table 4-4 are listed as “NS” in Table 4-4 but “1” in other tables.**

The table will be revised to indicate the standard is for total Aroclors only.

- f. **What does the * in Table 4-4 mean? It is not in the Notes.**

The * indicates that the PCB Aroclor exhibits an altered PCB pattern and that the best possible Aroclor match is reported. The * was should have been changed to a “J” (estimated) qualifier. The *s in Table 4-4 will be corrected to a “J” qualifier.

- g. **Please explain why the data for many areas are not included in the Section 4 Tables. For example, 284 and 288 Durfee St, Slim Parcel, NBHS data tables were not included in the Phase II. Similarly, no data are included for P034 and P035 which might be important in establishing the Site boundaries. This makes it very difficult to assess the data distribution.**

Data tables are included in Section 4 only for areas that have been determined to be within the PSWS Site boundary, and have not been previously reported in a Phase II or Permanent Solution Statement (formerly a Response Action Outcome Statement).

20. Was the extent vertically and horizontally around P020 NW01 determined?

Sample P-020-NW01 is a post-excavation sidewall sample taken by EPA/Weston in the northern sidewall. It is our understanding that the vertical extent of impacts for the excavation was determined by excavation base sample P-020-Q1. For a more detailed description of remedial activities kindly refer to the Partial Permanent Solution Statement with No Condition, Residential Property, 128 Ruggles Street, New Bedford, Massachusetts, filed in February 2017.

- 21. Please remember that Public Notice letters are required to all property owners within the site boundaries. These letters can also be used to document that individuals have been notified how to manage soil (last sentence in Exec Summary).**

Noted.

- 22. Page 1-1 would benefit from listing the 16 properties instead of 14 listed (obviously combining a number of locations).**

The text will be revised to indicate the individual properties.

- 23. Has the wetland south of Parker St been investigated (see 1948 Topo map and 1941 aerial photo showing disturbance in Appendix C)?**

Note the Draft Phase II CSA documents that the timeframe for Disposal Site-related filling activities shows some variability between the aerial photograph and topographic mapping records and that such discrepancies are likely associated with a lack of field verification for the aerial photography-based update of the USGS topographic mapping, filling of the former wetland area located immediately south of Parker Street (between Hunter Street to the east

and Hathaway Boulevard to the west) and depicted by the 1941 and 1948 topographic surveys commenced sometime prior to 1936. By 1938, the former wetland area appears to be completely filled and development near the intersection of Parker Street and Hathaway Boulevard is clearly evident by 1952. The parcels within which the former wetland was partially footprinted, including Map 63, Lot 47 (328 Parker Street – EPA parcel P-014), Map as 63, Lots 19 and 102 (157/169 Hunter Street – EPA parcel P-013) and Map 63, Lot 85 (70 Hathaway Boulevard – Former Keith Junior High School), have been subject to extensive site investigation activities by the City and/or EPA. In addition, the 157/169 Hunter Street and 70 Hathaway Boulevard properties have been subject to remedial actions by EPA and the City, respectively. Prior reporting on these parcels is publically available through the City’s website, MassDEP database and EPA administrative record for the PSWS Disposal Site.

24. Figure 2-1 incorrectly presents the boundaries of the PSWS and the associated radii.

The figure will be revised to more accurately show the PSWS Boundary and associated radii.

25. There does not appear to be a figure 2-1 as described on p. 2-22. I concur that a figure showing remediation areas should be included.

The reference will be removed.

26. Please explain whether measured concentrations of PSWS COCs on the Slim Parcel, in the absence of other evidence of filling/deposition, creates uncertainty about the Site boundaries in other areas (see comment 2).

Please see the response to Comment 2.

Consistent with the methodology administered throughout the Disposal Site, the Liberty Street Parcel (“Slim Parcel”) was evaluated using a multiple lines-of-evidence approach. Based on the available information, the Liberty Street Parcel appears to have been subject to disturbance and potential filling/grading activities at some point prior to 1936 and these activities appear to have continued intermittently and potentially expanded throughout Disposal Site-related disturbance activities. During this time period the northeast portion of the Liberty Street Parcel remained vegetated and seemingly undisturbed. Similarly, the establishment the Map 70, Lot 2 parcel servicing Oak Grove Cemetery appears to have occurred prior to and remained throughout Disposal Site-related disturbance activities. The parcel history, in combination with subsurface conditions and the presence/absence of soil impacts, appears consistent with the CSM for the Disposal Site which generally includes the deposition of Disposal Site-related fill material within a larger footprint of historic fill deposition. As a result and noting that a Partial Permanent Solution Statement is on file with MassDEP for the property, the City has conservatively applied the significant cultural feature of Oak Grove Cemetery (present in maps dating back to at least 1871) as the eastern boundary and included the majority of the Liberty Street Parcel within the limits of the Disposal Site.

27. Page 2-29 references a Figure 2 which appears to be missing.

The reference will be removed.

28. Please explain why the Stage II on the Durfee Street Wetland has not been completed given that the data have been available since 2011.

The human health risk assessment concluded that a condition of No Significant Risk (NSR) is not present within the Durfee Street Wetland and that remediation within the wetland is required. The Stage I Environmental Risk Characterization (ERC) also concluded that a condition of NSR does not exist for the Durfee Street Wetland. Subsequently, a conceptual framework for the wetland remediation evaluated several remedial alternatives based on reducing human health and environmental risks to a condition of NSR (Permanent Solution with or without conditions). Based on the existing data, limited additional areas would potentially need to be remediated in order to obtain a condition of NSR for the environmental risk after factoring in the remediation necessary to obtain a condition of NSR for human health. Rather than conduct a Stage II ERC that may have limited bearing on the remediation objectives, the remediation goals developed for the adjacent Keith Middle School Wetland were used to evaluate areas potentially requiring remediation at the Durfee Street Wetland. If warranted, a Stage II ERC could be conducted in the event that a more site-specific risk assessment and remediation goals needed to be developed.

- 29. Please explain what was done for a “data usability assessment”. It is not adequately addressed in Section 8 (not section 7 as listed on p. 4-1). A complete summary of the usability of the data, including an opinion that all of the data are of adequate quality and scientific validity to support the risk characterizations is needed. This would have to include Beta and Weston data if they are going to be used to render opinions regarding risk to human health and the environment.**

The data usability assessment will be updated to include a summary of what review was performed for EPA/Weston samples as follows:

For the EPA/Weston sample data, data validation was conducted on the fixed laboratory data packages by EPA. A minimum of 10% of the reported data received by their laboratory underwent a Tier II data validation, which requires that calibrations, Quality Control samples, and Performance Evaluation sample results be assessed and applied to the data set, resulting in qualification flags being applied to the data as appropriate. The remaining approximately 90% of the data underwent data validation at a Tier I Plus level. Tier I Plus level validation requires a data package completeness review, as well as an evaluation of Quality Control items and Performance Evaluation sample results, to support qualification of results.

With respect to TRC and BETA data, it is our position that what was done for a “data usability assessment” is adequately addressed for the Phase II CSA. A full Data Usability Assessment has been included in all Permanent Solutions submitted for the PSWS as required by the MCP, and will be included any subsequent Permanent Solutions.

- 30. Please provide the reference where the report describes how NDs were handled in the calculation of EPCs (not observed in Section 6.5.3).**

The following statement will be added to the text of Section 6.5.3: In the calculation of arithmetic mean concentrations, one-half the reporting limit was substituted for any non-detect values in the data set. For the calculation of 95% UCLs, non-detects were handled as required by EPA’s ProUCL program (i.e., the full reporting limit was included in the data set input, but the value was identified as a non-detect rather than a detected concentration).

- 31. Figure 5-1 does not explain the source of dioxins. Were they brought to the site or created at the site?**

Please refer to the response to Comment 15.

- 32. Please explain why the KMS Wetland/surface water is not “important” relative to the contamination at the Nemasket St properties (Section 7.6).**

Contaminants potentially associated with the Parker Street Waste Site have not been detected in groundwater beneath the Nemasket Street properties above MCP groundwater standards (including stringent GW-1 standards) as shown in Table 4-7 of the Phase II CSA report and groundwater flows in a southerly direction away from the KMS Wetland as shown on Figures 3-13a and 3-13b. Therefore, groundwater quality beneath the Nemasket Street properties does not adversely affect surface water in the KMS wetland. Topography along the northern border of the Nemasket Street properties nearest to the KMS wetland slopes southward away from the KMS wetland to topographically lower elevations to the south. Runoff generated along the northern portion the Nemasket Street properties flows into the isolated vegetated wetland at the west end of the property, which is approximately 3 feet (or more) lower than the surrounding property, has no outlet (i.e. has no hydraulic connection to the KMS wetland), is not in the 100 year floodplain, and has not been observed by TRC to overflow into the KMS wetland or vice versa. Moreover, the Nemasket Street properties are well vegetated which limits the mobility of potential contaminants by overland sediment transport. For these reasons, the KMS wetland/surface water is not considered important relative to the constituents of interest identified at the Nemasket Street properties.

- 33. Please explain why the second round of sw samples (2010) were deemed to be more representative than the 1st round (2009) (see section 7.14).**

The report does not state that “the second round of sw samples (2010) were deemed to be more representative than the 1st round (2009)” in Section 7.14.

- 34. The Cumulative Risk Characterization is presented in Section 6.9 and should be referenced as such (last sentence of the 1st paragraph of page 6-2). There are three other sections named “Risk Characterization” (6.0, 6.7, and 6.8.4).**

A reference will be included.

- 35. Please explain why the report, in the Executive Summary, Section 9 Conclusions, and Section 10 Phase II Outcome does not state which properties show risk (both human health and ecological) or require response actions to address risk.**

A risk summary table will be added to the Executive Summary to address this comment (see response to Comments 6 and 7). In addition, an expanded risk summary table will be inserted into Section 9.

- 36. Please explain how cumulative risk was evaluated for residents who may be exposed at residential parcels (as residents) and other parcels (as visitors, trespassers, workers, athletic visitors, etc), particularly given the fact that different risk characterization methods were used (Method 1 for residential parcels and Method 3 for other parcels).**

As noted in Section 6.9, the risk characterization assumed that 100% of an individual's exposure occurred at one exposure point (e.g., a residential lot or one of the NBHS exposure points). If in fact, 50% of an individual's exposure occurred at the residence and the other 50% occurred at the NBHS, the individual's risk would be intermediate between the two estimated risks. Although it is true that risks from a Method 1/Method 2 and a Method 3 cannot be averaged to derive an intermediate risk for this receptor (although both risk characterization methods are considered equally protective under the MCP), the fact that all exposure points across the PSWS have achieved a Condition of No Significant Risk for current exposures means that an individual exposed across the PSWS would not incur an unacceptable risk for current use if their exposure was to be divided amongst the exposure points. Once response actions are completed at the six properties with unacceptable future risk, the same will be true for future exposures.

37. Please explain why risk calculations were not performed for groundwater classified as GW-1 in the Method 3 risk characterizations, as required by the MCP and MassDEP risk characterization guidance.

A Method 1 approach was used for GW-1 groundwater because there were no cumulative risk issues to account for. The residence that currently has a private well is located beyond the boundary of the PSWS and the properties within the PSWS where groundwater within the GW-1 category is located (the City-owned Keith Middle School and Nemasket Street Lots) have or will have an AUL preventing future residential use. Only low concentrations of metals have been detected in monitoring wells within the GW-1 area of the PSWS (MW-3 and MW-39), and for those metals that MassDEP has a background concentration established for groundwater (e.g., arsenic, chromium, lead), the maximum detected concentrations were below the generic background concentrations. The low concentrations of the few metals detected in the monitoring wells within the GW-1 area for which MassDEP has not established a generic background concentration (barium, nickel, selenium, and zinc) are likely associated with a background condition, are significantly less than GW-1 standards, and would be associated with a negligible risk (hazard index of 0.1 for MW-3 and 0.03 for MW-39). This information will be added to the Uncertainty Section of the report.

38. A summary table of Risk Characterization approaches, receptors (current and future), exposure media (surface/subsurface soil, sediment), findings (NSR, eco risk), and whether an AUL was assumed would improve understanding.

A risk characterization summary table containing the requested information will be included in Section 9 (see attached).

39. Please at locus/location maps to each of the Section 3 Figures, preferably in a similar format (see figure 3-2a, -2B, and 2C for examples).

A locus/location will be added to all Section 3 Figures.

40. It is impossible to comment on any section where PS-P's are listed as "to be issued" or "filed".

All PS-P's listed as "to be issued" will be either issued or available for review prior to the filing of the Phase II CSA. All PS-P's that have been "filed", are available for review.

41. Please post the EPA reports referenced on p. 3-9. Currently, the information is not readily available.

The City will request the EPA make such reports available.