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Transmitted Via Overnight Delivery

May 25, 2007

Richard Fisher
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency, Region 1
1 Congress Street (HBO)
Boston, MA 02114-2023

Re: GE-Pittsfield/Housatonic River Site
Silver Lake Area *(GECD600)*
Conceptual Removal Design/Removal Action Work Plan
for Soils Adjacent to Silver Lake

Dear Mr. Fisher:

Enclosed for your review is GE's *Conceptual Removal Design/Removal Action Work Plan for Soils Adjacent to Silver Lake.*

Please contact me if you have any questions about this document.

Sincerely,

Richard W. Gates /for
Remediation Project Manager

Enclosure

cc: Dean Tagliaferro, EPA
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ARCADIS BBL
Infrastructure, environment, facilities

General Electric Company
Pittsfield, Massachusetts

Conceptual Removal Design/ Removal Action Work Plan for Soils Adjacent to Silver Lake

Volume I of III

May 2007

ARCADIS BBL

Conceptual Removal Design/ Removal Action Work Plan for Soils Adjacent to Silver Lake

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May 2007

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1. Introduction

1.1 General

On October 27, 2000, a Consent Decree (CD) executed in 1999 by the General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and several other government agencies was entered by the United States District Court for the District of Massachusetts. The CD requires (among other things) the performance of Removal Actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents present in soil, sediment, and groundwater in several Removal Action Areas (RAAs) located in or near Pittsfield, Massachusetts. (see Figure 1-1) These RAAs are part of the GE-Pittsfield/Housatonic River Site. For each Removal Action, the CD and accompanying *Statement of Work for Removal Actions Outside the River* (SOW) (Appendix E to the CD) establish Performance Standards that must be achieved, as well as specific work plans and other documents that must be prepared to support the response actions for each RAA. For most of the Removal Actions, these work plans/documents generally include the following: Pre-Design Investigation Work Plan, Pre-Design Investigation Report, Conceptual Removal Design/Removal Action (RD/RA) Work Plan, and Final RD/RA Work Plan (Final Work Plan).

This *Conceptual Removal Design/Removal Action Work Plan for Soils Adjacent to Silver Lake* (Conceptual Work Plan) evaluates the need for and scope of remediation actions to achieve the Performance Standards for soils in properties at the Silver Lake Area RAA (Silver Lake RAA) under the CD and SOW. Where needed, it also sets forth a proposal for such remediation. The evaluations and proposed remediation actions summarized in this report pertain to soils only. Activities relating to Silver Lake sediments have been and will continue to be addressed in separate submittals to EPA, and activities concerning groundwater at the Silver Lake RAA are being addressed separately as part of the Plant Site 1 Groundwater Management Area (GMA 1) monitoring program.

For the Silver Lake RAA, GE has previously submitted the following documents relating to soils:

- *Pre-Design Investigation Work Plan for the Silver Lake Removal Action Area* (PDI Work Plan), submitted in January 2003 and conditionally approved by EPA in a letter of February 11, 2003;

- *Pre-Design Investigation Work Plan Addendum for Soils Adjacent to Silver Lake* (PDI Work Plan Addendum), submitted in October 2003 and conditionally approved by EPA in a letter of January 14, 2004 (erroneously dated January 14, 2003);

- *Proposal for Additional Pre-Design Sampling for Soils Adjacent to Silver Lake* (PDI Sampling Proposal), submitted in March 2004 and conditionally approved by EPA in a letter dated March 30, 2004;

- *Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake* (Interim PDI Report), submitted in September 2004 and conditionally approved by EPA in a letter dated January 18, 2005;

- *Second Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake* (Second Interim PDI Report), submitted in May 2005 and conditionally approved by EPA in a letter dated August 30, 2005;

- *Third Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake* (Third Interim PDI Report), submitted in December 2005;

- *Addendum to the Third Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake* (Third Interim PDI Report Addendum), submitted in April 2006 and conditionally approved (along with the Third Interim PDI Report) by EPA in a letter dated May 11, 2006;

- *Fourth Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake* (Fourth Interim PDI Report), submitted in September 2006; and

- *Addendum to the Fourth Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake* (Fourth Interim PDI Report Addendum), submitted in November 2006 and conditionally approved (along with the Fourth Interim PDI Report) by EPA in a letter dated January 5, 2007.

The above-referenced documents include descriptions of the field investigation and sample collection and analysis activities performed during the investigation of bank and non-bank soils that collectively comprise the Silver Lake RAA. This Conceptual Work Plan builds upon the results of prior activities conducted by GE over the last several years and based on the results of the investigations described in the reports listed above, summarizes the results of evaluations concerning the need for and scope of soil-related response actions to achieve the applicable Performance Standards for polychlorinated biphenyls (PCBs) and other constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents -- benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3).

This Conceptual Work Plan presents: (1) a summary of the results of the pre-design investigation activities; (2) evaluations of both the PCB and non-PCB Appendix IX+3 data under existing conditions to assess the need for soil-related remediation activities; (3) where necessary, a conceptual proposal for soil-related remediation activities; and (4) evaluations of PCBs and other Appendix IX+3 constituents in soil under post-remediation conditions (where relevant) to demonstrate that the proposed remediation activities will achieve the applicable Performance Standards under the CD and SOW.

1.2 Site Description

1.2.1 Silver Lake

Silver Lake is located immediately west of and across Silver Lake Boulevard from the former 30s Complex portion of the GE Plant Area in Pittsfield. The lake is bordered to the north by Silver Lake Boulevard and Fourth Street, to the east by Silver Lake Boulevard, and to the west and south by several commercial and residential properties (see Figures 1-1 and 1-2). Silver Lake has a surface area of approximately 26 acres and a maximum water depth of about 30 feet. It receives stormwater discharges from several municipal stormwater outfalls, a portion of the GE Plant Area (via National Pollutant Discharge Elimination System [NPDES] permitted outfalls), as well as adjacent residential and commercial/industrial properties. Silver Lake discharges to the East Branch of the Housatonic River through a 48-inch-diameter concrete pipe located in the southwest portion of the lake. This pipe conveys surface water from Silver Lake and stormwater runoff from Fenn and East Streets to the Housatonic River. Details related to the lake and associated sediments can be found in the *Pre-Design Investigation Report for Silver Lake Sediments* (BBL, 2004).

1.2.2 Properties Within the Silver Lake RAA

1.2.2.1 Definition of the RAA Boundary

The SOW defined the Silver Lake RAA as including the bank areas of properties that surround the lake (except for four residential properties which GE was then addressing separately under an Administrative Consent Order [ACO] executed by GE and MDEP). The properties or portions of properties that were considered at that time to be within the Silver Lake RAA are shown in Figure 2-25 of the SOW. In accordance with the SOW, GE conducted several rounds of soil sampling for PCBs and/or other Appendix IX+3 constituents in order to characterize the bank soils at the properties and areas adjacent to Silver Lake. As a result of these investigations, GE identified specific properties at which portions of the non-bank area were proposed to be included within the Silver Lake RAA based on the findings of PCBs greater than 2 parts per million (ppm) in such areas. EPA

has approved the inclusion of those non-bank areas within this RAA. Additionally, the performance of the pre-design investigations resulted in the inclusion of a portion of Parcel I9-10-11, which had not previously been considered, within the RAA.

The current boundaries of the Silver Lake RAA are shown on Figure 1-2. These boundaries differ somewhat from those originally presented in the SOW. They also differ slightly from the boundaries presented in the most recent prior submittals on this RAA, which were based on the PCB data, because they have been expanded in a few specific locations to include small areas outside the PCB-based boundary where remediation will be necessary to address non-PCB constituents. In these cases, the prior, PCB-based boundary line is also shown (as a dashed line) because it limits the area where PCB evaluations have been conducted.

As currently configured, the Silver Lake include portions of eight residential properties, nine commercial properties (one of which consists of two commonly owned tax parcels), and an unimproved strip of land (considered to be "recreational") along the northern and eastern shores of the lake, which has been divided into five Recreational Areas and also includes one small undeveloped parcel (also considered as "recreational") located along Front Street. The specific Silver Lake properties (or portions thereof) for which RD/RA evaluations have been performed are listed in the table below, and their respective locations are shown on Figure 1-2.

TAX PARCEL ID	LOCATION	PROPERTY CLASSIFICATION
I9-9-34	765 EAST STREET	COMMERCIAL
I9-9-33	763 EAST STREET	COMMERCIAL
I9-9-32	751 EAST STREET	COMMERCIAL
I9-9-31	745 EAST STREET	COMMERCIAL
I9-9-30	737 EAST STREET	COMMERCIAL
I9-9-25	717 EAST STREET	COMMERCIAL
I9-9-24	709 EAST STREET	RESIDENTIAL
I9-9-23	EAST STREET	COMMERCIAL
I9-9-21& -22 (Commonly Owned)	689 EAST STREET	COMMERCIAL
I9-9-19	619 FENN STREET	RESIDENTIAL
I9-9-18	611 FENN STREET	RESIDENTIAL
I9-9-17[1]	607 FENN STREET	RESIDENTIAL

TAX PARCEL ID	LOCATION	PROPERTY CLASSIFICATION
I9-9-201[2]	551-1/2 & 579 FENN STREET	COMMERCIAL
I9-9-9	3 CAPRI TERRACE	RESIDENTIAL
I9-9-1	15 ESTHER TERRACE	RESIDENTIAL
I9-10-8	ESTHER TERRACE	RESIDENTIAL
I9-10-9	FOURTH STREET	RECREATIONAL
I9-10-11	FOURTH STREET	RESIDENTIAL
Recreational Areas 1 though 5[3]	SILVER LAKE BOULEVARD	RECREATIONAL

Notes:
1. Parcel I9-9-17 is commonly owned with Parcel I9-9-201 (which is considered commercial).
2. Parcel I9-9-201 consists of two former parcels – I9-9-102 and I9-9-101 – which were commonly owned and have recently been combined.
3. The strip of land on the northern and eastern side of the lake between the lake and Fourth Street/Silver Lake Boulevard, including Parcel I9-10-9, has been classified as recreational, and has been divided into five RD/RA averaging areas (Recreational Areas 1 through 5).

Collectively, the portions of the above-listed properties that comprise the Silver Lake RAA represent approximately 5 acres of contiguous land around the perimeter of Silver Lake. Note that four residential properties that also abut the lake (Parcels I9-9-26, I9-9-27, I9-9-28, and I9-9-29) have been excluded from this RAA, because they were previously addressed by GE under its ACO with MDEP.

It should also be noted that, based on a detailed survey performed by GE at the Silver Lake RAA and discussed in the Fourth Interim PDI Report and addendum thereto, certain property boundaries, as reflected in the legal title to certain properties within the Silver Lake RAA, do not match the property configurations presented in the SOW. As discussed in various pre-design investigation reports, and subsequently approved by EPA, GE has performed RD/RA evaluations pursuant to the CD and SOW for this RAA based on the property configurations shown on Figure 1-2. Although these configurations may not match the title information in some respects, they do reflect current usage and thus are considered appropriate for determining averaging areas for RD/RA evaluation purposes.

1.2.2.2 Description of Properties Within Silver Lake RAA

The individual properties and recreational areas comprising the Silver Lake RAA are illustrated in more detail in Figures 2-1 through 2-5, which include pertinent site features (e.g., topography, structures) related to individual parcels. These areas are further described below.

The banks of the commercial and residential properties within the Silver Lake RAA largely consist of steep sloped banks that are overgrown in places with scrub brush and dense undergrowth vegetation. The non-bank areas that have been included in the Silver Lake RAA are generally flat or gently sloped towards the lake, and are populated with scrub brush or unmaintained areas of grass and undergrowth. On select parcels, non-bank areas are crossed by fences, or feature sheds or other storage-type structures. In general, both bank and non-bank areas remain largely unimproved, and there are very few installations (e.g. docks, landscaping) related to the lake as a natural resource. There is one private boat launch located on the southern shore of the lake, adjacent to the outfall to the Housatonic River, on Parcel I9-9-21.

As shown on Figures 2-1 through 2-4, Parcels I9-9-1, I9-9-9, I9-9-17, I9-9-18, I9-9-19, I9-9-24, I9-10-8, and I9-10-10 are considered residential; and Parcels I9-9-21 and I9-9-22 (under common ownership) I9-9-23, I9-9-25, I9-9-30, I9-9-31, I9-9-32, I9-9-33, I9-9-34, and I9-9-201 (formerly I9-9-101 and -102) are considered commercial. However, as discussed below, the bank portions of the commercial properties are subject to Performance Standards based on recreational use. Additionally, an undeveloped section of Esther Terrace abutting the lake has been included in the Silver Lake RAA and is located between residential Parcels I9-9-1 and I9-10-8 (Figure 2-4). As discussed in previous pre-design investigation reports, for the purposes of the performance of the evaluations presented herein, Esther Terrace has been divided equally along a north and south axis with each half combined with adjacent properties: I9-10-8 to the west, and I9-9-1 to the east.

As noted above, the Silver Lake RAA also includes a narrow strip of land between the lake and Silver Lake Boulevard/Fourth Street, along the northern and eastern shores of Silver Lake. This strip has been divided, for evaluation purposes, into five recreational areas (Recreational Areas 1 through 5, as shown on Figure 2-5), which are subject to Performance Standards based on recreational use. In general, these recreational areas consist of sparsely vegetated steep banks which are in certain areas covered with rocks, gravel, construction debris, and/or litter and decaying organic matter. Certain portions of the recreational areas include vestiges of former facility infrastructure (e.g., loading docks, sluices), which have been abandoned. Recreational Area 1 (RA-1), located in the northwest portion of the Silver Lake RAA, includes Parcel I9-10-9 as well as the bank soils between Parcel I9-10-8 and the intersection of Fourth Street and Silver Lake Boulevard. The remaining recreational areas (i.e., RA-2, RA-3, RA-4, and RA-5) are numbered consecutively, and progress in a clockwise direction around the lake, with RA-5 located in the southeast portion of the Silver Lake RAA adjacent to the eastern border of Parcel I9-9-34 (Figure 2-5).

At the time of the SOW, it was believed that these recreational areas were publicly owned. However, recent preliminary information, based on historical research into deed records, indicates that portions of these areas may be in private ownership related to the ownership of properties across Silver Lake Boulevard or Fourth Street. Specifically, this preliminary information indicates that, in addition to the road easements within each of these areas: (a) RA-1 (including Parcel I9-10-9) and a portion of RA-2 may be part of land across Fourth Street identified as being owned by the Pittsfield Industrial Development Company c/o Central Berkshire Chamber of Commerce; (b) the remaining portion of RA-2 and a portion of RA-3 may be part of land across Silver Lake Boulevard owned by Western Massachusetts Electric Company; and (c) the remaining portion of RA-3, along with RA-4 and RA-5, may be part of GE-owned land across Silver Lake Boulevard. GE will investigate these issues further and provide updated ownership information, if available, in the Final RD/RA Work Plan.

1.3 Scope and Format of Work Plan

The remainder of this Conceptual Work Plan is presented in five sections. The title and a brief overview of each section are presented below:

Section 2 – Summary of Pre-Design Activities and Available Soil Data, provides a brief summary of the pre-design investigations and other activities conducted by GE related to bank soils within the Silver Lake RAA (including the most recent investigations), and presents the data used to evaluate the need for remediation to address PCBs and other Appendix IX+3 constituents in soil at the various averaging areas.

Section 3 – Summary of PCB and Appendix IX+3 Evaluation Procedures, provides an overview of the applicable PCB and Appendix IX+3 Performance Standards for the various Silver Lake residential, commercial, and recreational averaging areas, and describes the procedures used to evaluate PCBs and other Appendix IX+3 constituents in existing and, where necessary, post-remediation conditions.

Section 4 – PCB and Non-PCB Soil Evaluations, presents the results of the PCB and Appendix IX+3 evaluations for each averaging area at the Silver Lake RAA. This section first evaluates the soil data for PCBs and other Appendix IX+3 constituents under existing conditions at each averaging area to determine the need for remediation to achieve the applicable Performance Standards. Where remediation is necessary, the proposed remediation to achieve the Performance Standards (i.e., soil removal/replacement) is then described and depicted on an attached figure. Further, for averaging areas where remediation is necessary to address PCBs and/or other constituents in soil, this section presents revised evaluations of post-remediation conditions for such constituents to

demonstrate that the proposed remediation will achieve the applicable Performance Standards.

Section 5 – Preliminary Design Information and Future Design-Related Activities, discusses preliminary design and related information associated with the remediation proposed for the bank and some non-bank soils adjacent to Silver Lake, as well as future design-related activities. It also includes a conceptual discussion of the natural resource restoration/enhancement activities to be implemented on portions of the Silver Lake banks under the CD and SOW.

Section 6 – Schedule, presents GE's proposed schedule for future activities, including submission of the Final Work Plan for soils adjacent to Silver Lake.

The discussions in the sections listed above are supported by tables, figures, and other evaluations either included with the main document text, or presented in several appendices, as described in this Conceptual Work Plan.

2. Summary of Pre-Design Activities and Available Soil Data

2.1 General

Prior to the submittal of a Conceptual Work Plan for a given RAA, the CD and SOW require the characterization of soils within the RAA and the collection of other relevant site information. These activities, collectively referred to as pre-design activities, serve as the basis for the subsequent technical RD/RA submittals. This section provides a brief description of recent pre-design activities performed by GE as well as a summary of the entire pre-design program that has been performed to date by GE, EPA, and others, related to soils adjacent to Silver Lake. These activities have primarily involved the performance of soil sampling and analyses in accordance with the investigation requirements contained in the CD and SOW. Such activities have been previously summarized in multiple documents provided to EPA, as listed in Section 1.1.

In addition, GE has also conducted other pre-design activities to supplement the soil characterization program and to support the evaluations presented herein. These additional activities include the performance of a detailed site survey, including an assessment of paved and unpaved areas, surface elevations and topography, property boundaries and easements, certain utilities (e.g., manholes, catch basins), soil sample locations, and other site features. A summary of pre-design soil investigation activities is provided below.

2.2 Summary of Most Recent Pre-Design Investigation Activities

The most recent soil investigations were initiated by GE on March 14 and 15, 2007, in accordance with GE's Fourth Interim PDI Report and the addendum thereto, as modified by EPA's conditional approval letter associated with these documents. Additional investigative activities were performed on May 1 and 4, 2007 in accordance with e-mail communications between EPA and GE in April 2007. These field investigations were performed by ARCADIS BBL (ABBL), while analytical services were provided by SGS Environmental Services, Inc. (SGS). All field and analytical activities conducted by GE were performed in accordance with GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) (last updated in March 2007).

The March/May 2007 soil sampling effort performed by GE involved the collection of 10 samples from 5 locations for PCB analysis, and 20 soil samples from 12 locations for non-PCB analyses. The analytical results for samples collected by GE in March and May 2007 are summarized in Tables 1 and 2 for PCB and Appendix IX+3 constituents, respectively. The locations of these recent soil samples, as well as prior soil sample locations utilized in

the evaluations presented herein, are shown on Figures 2-1 through 2-5. Soil boring logs associated with the March/May 2007 investigation activities are provided in Appendix A.

Analytical laboratory results from the March/May 2007 sampling event have undergone data validation in accordance with Section 7.5 of the FSP/QAPP. The results of this data validation are presented in Appendix B. As discussed in Appendix B, 100% of the data are considered usable. Thus, this data set meets the data quality objectives (DQOs) set forth in the FSP/QAPP.

2.3 Summary of Pre-Design Soil Investigations

In combination with the most recent soil data described above, prior soil sampling activities for the Silver Lake bank and non-bank soils (performed by GE, EPA, and others) have resulted in considerable PCB and non-PCB Appendix IX+3 data. After incorporating the results of the recent investigations discussed above, the overall PCB soil data set for Silver Lake Area soils includes analytical results from approximately 910 soil samples. Note that this number does not include soil samples collected and analyzed from Parcels I9-9-26, I9-9-27, I9-9-28, and I9-9-29, which have been previously remediated as discussed above. For other Appendix IX+3 constituents, the available data set consists of the results from approximately 270-280 samples (depending on the analytical parameter) from recent soil sampling activities and historical investigations (again, excluding soil samples collected and analyzed from Parcels I9-9-26, I9-9-27, I9-9-28, and I9-9-29).

2.4 Soil Sample Results Used in Conceptual Work Plan

The locations of all soil samples used in the evaluations in this Conceptual Work Plan, including the historical, pre-design, and supplemental soil samples, are shown on Figures 2-1 through 2-5. The PCB analytical results for all soil samples used in the PCB evaluations presented in this Conceptual Work Plan are presented in Appendix C. Specifically, the PCB analytical results from GE's pre-design investigations are presented in Table C-1; the PCB analytical results from EPA's sampling are presented in Table C-2; and the usable PCB analytical results from prior (historical) investigations of this RAA are presented in Table C-3.

Analytical results for the non-PCB Appendix IX+3 constituents used in the evaluations presented in this document are presented in Appendix E. Note that these data tables summarize the analytical results for only those constituents that were detected in one or more samples during the respective investigations, except for with respect to dioxin and furan compounds, for which all results are presented, along with total Toxicity Equivalency Quotient (TEQ) concentrations calculated using Toxicity Equivalency Factors (TEFs) developed by the World Health Organization.

3. Summary of PCB and Appendix IX+3 Evaluation Procedures

3.1 General

This section provides a description of the procedures used by GE to determine the need for and scope of remediation actions to achieve the PCB and Appendix IX+3 Performance Standards specified in the SOW for the bank and non-bank averaging areas comprising the Silver Lake RAA. Specifically, this section provides an overview of the PCB Performance Standards and evaluation procedures (Section 3.2), followed by an overview of the Performance Standards and evaluation procedures for other Appendix IX+3 constituents (Section 3.3).

3.2 Summary of PCB Evaluation Procedures

This section summarizes the PCB evaluation procedures for soils adjacent to Silver Lake, including: (1) a description of the applicable PCB-related Performance Standards for this RAA; (2) the current status regarding obtaining Grants of Environmental Restrictions and Easements (EREs) for certain properties located within the Silver Lake RAA; (3) the PCB evaluation procedures for each averaging area; and (4) a summary of the utility corridor PCB evaluation procedures.

3.2.1 PCB-Related Performance Standards

For the Silver Lake RAA, the Performance Standards related to the presence of PCBs in soil are set forth in the CD and Section 2.6.2 of the SOW. The pertinent Performance Standards related to the presence of PCBs in soils adjacent to Silver Lake may be summarized as follows:

Non-Residential Properties

For non-residential properties within the Silver Lake RAA, the Performance Standards identified in the CD and SOW depend on whether an ERE can be obtained for the property/area in question.

The applicable PCB Performance Standards for the bank portion of each separately owned commercial property and for each of the five separate recreational areas are as follows:

- For each such area for which an ERE can be obtained, GE must calculate spatial average PCB concentrations for the 0- to 1-foot and 1- to 3-foot depth increments. If the spatial average PCB concentration exceeds 10 ppm in the top foot or 15 ppm in the 1- to 3-foot depth increment, GE must remove and replace bank soils as necessary to achieve spatial average PCB concentrations at or below those levels in the increments specified.

- For each such bank area for which an ERE cannot be obtained, GE must implement a Conditional Solution. In that case, GE must calculate spatial average PCB concentrations for the 0- to 1-foot and 0- to 3-foot depth increments. If the spatial average PCB concentration exceeds 10 ppm in either of these depth increments, GE must remove and replace bank soils as necessary to achieve spatial average PCB concentrations at or below 10 ppm in those increments.

For the non-bank portions of commercial properties, the SOW does not specify particular Performance Standards for the Silver Lake RAA. However, as proposed in the Interim PDI Report and approved by EPA, GE has applied to these areas the Performance Standards for commercial properties in the floodplain areas adjacent to the 1½-Mile Reach of the Housatonic River. These standards require that, for each separately owned property, if an ERE is obtained, GE must achieve spatial average PCB concentrations of 25 ppm in the 0- to 1-foot depth increment (via soil removal in unpaved areas and pavement enhancement or soil removal in paved areas) and 200 ppm in the 1- to 6-foot depth increment, and that if an ERE is not obtained, GE must achieve (via soil removal) spatial average PCB concentrations of 25 ppm in the 0- to 1-foot and 0- to 3-foot depth increments and 200 ppm in the 1- to 6-foot depth increment. In addition, for any non-bank commercial area that exceeds 0.5 acre in size, GE must remove any soil with a PCB concentration above a not-to-exceed (NTE) level of 125 ppm in the top foot of soil in unpaved areas. Further, if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment (or to whatever depth sampling data exist if less than 15 feet) exceeds 100 ppm, GE must install an engineered barrier.

Residential Properties

The PCB Performance Standards for residential areas at the Silver Lake RAA require GE to calculate spatial average PCB concentrations for the 0- to 1-foot and 1- to X-foot depth increments, where X equals the depth at which PCBs have been detected (up to a maximum of 15 feet). If the spatial average PCB concentration in the 0- to 1-foot or 1- to X-foot depth increment exceeds 2 ppm, GE must remove and replace bank soils as necessary to achieve a spatial average PCB concentration at or below 2 ppm in each of these depth increments. These Performance Standards apply to the bank portion and (if applicable) non-bank portion of each residential property at this RAA. In addition, the

SOW allows GE to address any of these residential properties as a whole or as a combination of the bank and non-bank portions included in the Silver Lake RAA, provided that potential exposure to soils within the property is equally likely throughout the area and that adequate soils data exist to support such evaluation. Under this scenario, GE must achieve the same Performance Standards within the overall or combined area. In addition, for any non-bank or combined residential area that exceeds 0.25 acre in size, GE has applied an NTE level of 10 ppm for the top foot of soil in unpaved areas.

To facilitate this evaluation, GE has assessed the available PCB data on an area-specific basis and developed, for each averaging area, an "X" value [in feet below the ground surface (bgs)] to represent the anticipated depth to be used during PCB evaluations. For each residential evaluation area (whether bank, non-bank or combined), GE is proposing an "X" depth to be applied across the entire evaluation area, thus simplifying the selection of depths for the RD/RA evaluations. As previously discussed with EPA (in connection with the 1½ Mile floodplain properties), for each area, the "X" depth has been selected to include all or the great majority of detected PCB concentrations in the soil. GE's proposed determination of the "X" depth for each evaluation area, along with the supporting rationale, is provided in Table 3. Note that this table includes all residential evaluation areas (even though some of them are not proposed for remediation to address PCBs) as well as select commercial properties that are proposed for evaluation under residential standards, as further discussed in Section 4.

Utility Corridors

In addition to the above evaluation, where subsurface utilities potentially subject to future emergency repairs are present, GE is required to perform special evaluations based on an approximately 50-foot wide band centered on each of the utilities (i.e., located within approximately 25 feet from the centerline of the utility). In any such area, if the spatial average PCB concentration exceeds 200 ppm, GE must evaluate whether any additional response actions are necessary. At the Silver Lake RAA, no such areas have been identified; hence, special evaluations with respect to utility corridors have not been performed. If such evaluations are considered necessary at a later date, they will be presented as part of the Final RD/RA Work Plan.

3.2.2 Status of EREs

As discussed in Section 1, the Silver Lake RAA encompasses a number of non-residential areas, including portions of nine commercial properties and an additional five recreational averaging areas (i.e., RA-1 through RA-5). However, for a number of the commercial properties, as discussed below, GE is proposing herein to evaluate the portions within the RAA under the standards applicable to residential properties and to achieve those

standards at these portions. These consist of the portions of the following properties within this RAA: Parcels I9-9-23, I9-9-30, and I9-9-31. In this situation, an ERE is not necessary for these areas. The current status relating to EREs for the remaining non-residential areas is as follows:

- The owner of Parcels I9-9-21 and I9-9-22 has advised GE that he does not wish to execute an ERE for these parcels. Therefore, GE will implement a Conditional Solution at the portions of this commonly owned property within the RAA.

- The owner of Parcel I9-9-33 has advised GE that he is willing to execute an ERE on this parcel.

- For Parcels I9-9-25, I9-9-32, I9-9--34, and I9-9-201, GE has described the ERE vs. Conditional Solution options to the owners and offered the compensation required by the CD for an ERE. To date, the owners of these properties have not advised GE whether they would be willing to execute an ERE on their respective parcels.

- For the five recreational areas, GE will execute EREs for any portions owned by GE, and it assumes that, as required by the CD, the City of Pittsfield will execute EREs for any portions owned by the City. For any other privately owned portions, given the unclear ownership status described in Section 1.2.2.2 and the fact that, if these portions are in fact owned by the identified entities, they are part of much larger portions across the roads, GE proposes to implement Conditional Solutions for those portions. Thus, for purposes of the evaluations in this Conceptual Work Plan, GE has assumed that EREs will be executed for RA-4, RA-5, and a portion of RA-3, which appear to consist of GE-owned land and/or roadway easements, and that Conditional Solutions will be implemented for RA-1, RA-2, and the remainder of RA-3 (which appear to be partly in private ownership), possibly combined with EREs for the roadway easements.

In these circumstances, for any non-residential areas at which the owners have not yet decided whether to execute EREs (i.e., Parcels I9-9-25, -32, -34, and -201), as well as for the recreational areas where there could be a combination of EREs and Conditional Solutions (i.e., RA-1, RA-2, and RA-3), GE has prepared this Conceptual Work Plan to ensure that these areas would meet the applicable Performance Standards either for properties with an ERE or for properties with a Conditional Solution. GE is continuing discussions with the property owners who have not yet decided whether to execute EREs, as well as its investigations of the property ownership issues at the recreational areas, and will provide an updated status report regarding EREs in the Final RD/RA Work Plan.

3.2.3 Area-Specific PCB Evaluation Procedures

The procedures used to evaluate PCB concentrations in soil in this Conceptual Work Plan were established in Attachment E to the SOW (Protocols for PCB Spatial Averaging). The PCB evaluations presented in this Conceptual Work Plan incorporate the usable PCB data from historical samples and the pre-design soil PCB data, including the data from supplemental soil samples. The locations of the samples used in these evaluations are shown on Figures 2-1 through 2-5, with associated analytical data presented in Appendix C.

The initial task in the PCB evaluation process for the areas included in the Silver Lake RAA was to assess the PCB concentrations in soil under existing conditions. This task involved calculation of a spatial average PCB concentration for each relevant depth increment at each averaging area using the polygon-based spatial averaging techniques described in Attachment E to the SOW. These techniques involve the following steps:

- For each area and depth subject to PCB spatial average calculations, a detailed site plan was first developed to illustrate the following: property/area boundaries; surface topography; soil sampling locations within and adjacent to the area; presence of roadways, utilities, easements, etc.; presence of buildings, pavement, and other permanent structures; and other significant site features. For these PCB evaluations, GE used the RAA boundaries that were established based on the PCB data, prior to any expansions to include small areas designated for remediation to address non-PCB constituents. These boundaries are shown on the figures.

- Next, Theissen polygon maps were developed for each averaging area and depth interval. Theissen polygon mapping involves the use of computer software to draw perpendicular bisector lines between adjacent sample locations to create two-dimensional, sample-specific polygon areas. Certain boundary conditions impact the generation of Theissen polygons, such as the boundaries of the area subject to averaging, presence of paved and unpaved areas, easement boundaries, building footprints, property lines, etc. As appropriate, the computer-generated Theissen polygons were modified to reflect actual site conditions, presence/absence of soil at a given depth, locations of property ownership lines, or other specific or unique site considerations. Once the Theissen polygon mapping was complete, all of the soil areas and depths potentially subject to remediation were adequately characterized for use in subsequent evaluations. After generation of the Theissen polygons, polygon identification numbers were assigned to each polygon and the surface area of each polygon was calculated.

- Computer spreadsheets were then prepared to combine information obtained from the Theissen polygon mapping (i.e., polygon ID and area for each polygon) with the analytical results of soil sampling to provide a three-dimensional characterization of the soils associated with each polygon. The volume of soil associated with each polygon was based on the surface area of the polygon multiplied by the corresponding depth of soil for which samples were collected. Using the information described above, a spatial average PCB concentration was derived by multiplying the volume of each polygon by its assigned PCB concentration, summing the results of this calculation for each polygon involved in the evaluation, and then dividing that sum by the cumulative soil volume associated with all of the polygons. This procedure yields a spatial average PCB concentration that incorporates both volume- and area-weighted considerations.

The resulting spatial average PCB concentrations were then compared to the applicable PCB Performance Standards specified in Section 3.2.1 above to determine whether soil remediation is necessary to address PCBs under the CD and SOW. In addition, for averaging areas to which the PCB NTE levels specified above apply (i.e., residential non-bank areas exceeding 0.25 acre or commercial non-bank areas exceeding 0.5 acre), the discrete PCB concentrations in the top one foot of soil in unpaved portions were compared to the applicable NTE level to determine if additional remediation is needed to address any exceedances of those levels.

For areas where there were exceedances of the applicable Performance Standards, a remediation proposal was developed. For the Silver Lake RAA, all proposed remediation activities consist of soil removal/replacement. For such areas, an evaluation was then conducted to confirm that the proposed soil removal/replacement would achieve the applicable PCB Performance Standards. In accordance with the procedures for post-remediation evaluations in Attachment E to the SOW, this evaluation consisted of the following steps: First, the spatial averaging procedures described above were used to assess the PCB concentrations at each averaging area in its post-remediation condition by: (1) assuming the removal of soils within the subject polygon to the required depth; (2) assuming that the excavated soils are replaced with backfill material that contains PCBs at an assumed concentration of 0.021 ppm, the average concentration of PCBs in sampled backfill sources, as indicated in Table 2 of GE's *Proposed Backfill Data Set for CD Sites* (March 11, 2003); and (3) recalculating the post-remediation spatial average PCB concentration(s). The post-remediation spatial average PCB concentrations were then compared to the applicable Performance Standards to ensure that the proposed remediation will achieve such Performance Standards.

It should be emphasized that the soil remediation proposals developed and shown in this Conceptual Work Plan do not take account of the remediation that will be implemented to address the sediments in Silver Lake, including the bank soil removals to support the cap

and armor stone to be placed around the lake. These anticipated sediment-related removals along the banks may reduce or otherwise affect the extent of soil removal to meet the soil-related Performance Standards, as described in this Conceptual Work Plan. In these circumstances, as noted in Section 5 below, GE anticipates that the final soil remediation plans will take into account and be coordinated with the sediment remediation plans

The PCB evaluation results are summarized on an area-by-area basis in Section 4, with supporting documentation provided in Appendix D (evaluation tables and polygon figures).

3.3 Summary of Appendix IX+3 Constituent Evaluation Procedures

This section describes the procedures used to evaluate non-PCB Appendix IX+3 constituents in soil. As with PCBs, the other Appendix IX+3 constituents have been evaluated first for each averaging area in its existing condition; and then, for each such area where the applicable Performance Standards are not met, remediation is proposed and post-remediation conditions are evaluated to ensure achievement of the Performance Standards. This section includes an overview of the applicable Performance Standards, an overview of the evaluation process used to assess achievement of those standards, and a more detailed description of some of the specific evaluation procedures used. The latter include: application of screening criteria; the procedures used to assess dioxins/furans; comparisons to Method 1 soil standards specified in the Massachusetts Contingency Plan (MCP); procedures used for area-specific risk evaluations (where necessary); and procedures used to take account of the proposed remediation (where necessary). The evaluation results are summarized on an area-by-area basis in Section 4, with supporting documentation provided in Appendix E (data summary and evaluation tables) and Appendix F (risk evaluations).

3.3.1 Applicable Performance Standards

The applicable Performance Standards for non-PCB Appendix IX+3 constituents in soils adjacent to Silver Lake are included in Section 2.6.2 of the SOW. These standards include the following:

- For dioxins and furans, total TEQ concentrations must be calculated using Toxicity Equivalency Factors (TEFs) published by the World Health Organization (WHO) in 1998 (van den Berg J. et al., *Environ. Health Perspectives*, Vol. 106, No. 12, Dec. 1998). Either the maximum TEQ concentration or the 95% percent upper confidence limit on the mean (95% UCL) of the TEQ data must be below certain Preliminary Remediation Goals (PRGs) developed or approved by EPA for dioxin/furan TEQs. These PRGs are: for areas evaluated as commercial, 5 parts per billion (ppb) in the top

foot of soil and 20 ppb in subsurface soil; for areas evaluated as recreational, 1 ppb in the top foot and 1.5 ppb in the 1- to 3-foot depth interval, and for areas evaluated as residential, 1 ppb. In addition, EPA previously requested that GE compare the maximum or 95% UCL TEQ concentrations to certain additional TEQ criteria, although these are not Performance Standards specified in the CD or SOW. These criteria include 5 ppb for the 0- to 3-foot depth increment at commercial areas that will not have EREs and 1 ppb for the 0- to 3-foot depth increment at recreational areas that will not have EREs.

- For other non-PCB constituents, any combination of the following must be achieved: (1) maximum concentrations of individual constituents that do not exceed the Screening PRGs established or approved by EPA (as discussed below); and (2) for the remaining constituents, average concentrations that either: (a) do not exceed the MCP Method 1 soil standards (or Method 2 standards, if developed) (except for sulfide, for which a special procedure has been agreed upon, as discussed below); or (b) are shown through an area-specific risk evaluation to have cumulative risk levels that do not exceed (after rounding) an excess lifetime cancer risk of 1×10^{-5} and a non-cancer Hazard Index of 1.

3.3.2 Overview of Evaluation Process

The initial task performed in the evaluation of the non-PCB constituents in soils adjacent to Silver Lake was to assess such constituents in soil at each averaging area under existing conditions, based on all available Appendix IX+3 data collected from that area, without considering PCB-related remediation. This assessment consisted of several steps, consistent with Attachment F to the SOW (Protocols for the Evaluation of Non-PCB Constituents in Soil):

- First, a screening step was conducted, which generally involved comparison of the maximum concentrations of all detected constituents (other than dioxin/furan TEQs) to PRGs developed by EPA Region 9 (as set forth in Exhibit F-1 to Attachment F of the SOW) or certain surrogate PRGs previously approved by EPA. This screening step is discussed further in Section 3.3.3.

- Second, for dioxin/furan TEQs, the maximum concentration at each area and relevant depth increment was compared to the applicable dioxin/furan PRG described above (as well as the additional criteria requested by EPA). This step is discussed further in Section 3.3.4.

- Third, for those constituents (other than dioxin/furan TEQs) that were not screened out in Step 1, the existing average concentrations of each such constituent were calculated for the relevant depth increments. These average concentrations were then compared to the MCP Method 1 soil standards for such constituents. (As discussed further below, average concentrations of sulfide and copper were compared to derived Method 2 soil standards.) This step is discussed further in Section 3.3.5 below.

- Fourth, for averaging areas where there were exceedances of the Method 1 soil standards in any depth increment but such exceedances were not significantly above the Method 1 soil standards, an area-specific risk evaluation was conducted for the same constituents evaluated in Step 3 and in accordance with the procedures specified for such evaluations in the SOW. This step is discussed further in Section 3.3.6.

In accordance with Attachment F to the SOW, these comparisons and evaluations of non-PCB constituents, following the initial screening step, were made for the same depth increments used for the PCB evaluations, as specified in Section 3.2.1. It should be noted that, at this RAA, limited non-PCB sampling data at four residential averaging areas (I9-9-1, I9-9-18, I9-9-19, and I9-10-11) exist at depths below the proposed "X" depth associated with the PCB evaluations discussed in Section 3.2.1. These data are included in the data summary tables in Appendix E for each of these areas and have been considered in the initial screening step discussed above. However, consistent with Attachment F to the SOW, these data are not included in the subsequent evaluation tables involving comparisons to the dioxin/furan PRGs and MCP Method 1 soil standards (except for data from samples that straddle the "X" depth). In all such cases, this was a conservative approach because the constituent concentrations in the non-PCB samples collected from below the "X" depth (apart from the "straddle" samples) were lower than the applicable dioxin/furan PRG or Method 1 soil standards and thus could not have caused an exceedance of those criteria These instances are identified in notes in the pertinent Appendix IX+3 data summary tables in Appendix E.

At averaging areas where these evaluations indicated the need for additional remediation to address non-PCB constituents in soil, a remediation proposal was developed. Such areas generally consist of those areas with exceedances of the dioxin/furan TEQ PRGs or with significant exceedances of the Method 1 soil standards such that an area-specific risk evaluation of existing conditions was not deemed warranted. As with the PCB-related remediation, the additional remediation at these areas involved soil removal/replacement. For such areas, an evaluation was then conducted of post-remediation conditions. This evaluation consisted of repeating Steps 2 through 4 of the above-described process, as necessary, to demonstrate that the proposed remediation will achieve the applicable Performance Standards for non-PCB constituents. The specific procedures used to take

account of the proposed soil removal/replacement in these post-remediation evaluations are discussed further in Section 3.3.7 below.

3.3.3 Screening Evaluation Procedures

As noted above, the first step in the evaluation of non-PCB Appendix IX+3 constituents in soil under existing conditions at the Silver Lake averaging areas was the performance of a screening evaluation. In this step, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to the EPA Region 9 PRGs set forth in Exhibit F-1 to Attachment F of the SOW, using industrial PRGs for commercial areas and residential PRGs for residential and recreational areas. However, for certain constituents, EPA Region 9 PRGs are not available. For some of these constituents, the SOW identifies surrogate PRGs that may be used for screening purposes. Specifically, in accordance with the SOW, for polycyclic aromatic hydrocarbons (PAHs) for which EPA Region 9 PRGs do not exist, the EPA Region 9 PRG for benzo(a)pyrene was used for carcinogenic PAHs and the EPA Region 9 PRG for naphthalene was used for non-carcinogenic PAHs. In addition, for certain other constituents that do not have EPA Region 9 PRGs, this screening step used the PRGs for several surrogate compounds which have previously been approved by EPA for use at other RAAs. The Region 9 PRGs and surrogate PRGs used in this step are jointly referred to herein as the "Screening PRGs."

3.3.4 Dioxin/Furan Evaluation Procedures

For each dioxin/furan sample, a total TEQ concentration was calculated using the 1998 WHO TEFs. In making these calculations, the concentrations of the individual dioxin/furan compounds that were not detected in a given sample were represented as one-half the analytical detection limit for such compounds. Then, for each averaging area and relevant depth increment, the maximum TEQ concentration was compared to the applicable PRG identified in the SOW (or the other TEQ criteria requested by EPA) for that type of area and depth, as specified in Section 3.3.1 above. (For this RAA, 95% UCLs were not calculated for the TEQ data.) If the maximum TEQ concentrations at each averaging area are less than the applicable PRGs (or other comparison criteria requested by EPA), it was concluded that no further response actions are necessary to address dioxin/furan TEQs.

3.3.5 Comparisons to MCP Method 1 Soil Standards

For each constituent (other than dioxins/furans) that was not eliminated in the screening step, an average concentration was calculated for the averaging area and depth increment in question and compared to the applicable MCP Method 1 soil standard (category S-1, S-2, or S-3). In calculating these average concentrations, non-detect sample results were represented as one-half the analytical detection limit. In calculating average concentrations

in cases where delineation samples were collected to determine the extent of removal for a given non-PCB constituent and those samples are close to the original sample, these sample results were first averaged together to create a composite sample result, and then that composite sample result was averaged together with the other sample results for that constituent in the given averaging area and depth increment. This procedure was followed, in accordance with a prior agreement with EPA, to avoid skewing the average by the inclusion of several samples collected close together without accounting for the spatial distribution of such samples. However, this procedure was not used to eliminate the need for remediation to address the original sample that was subject to delineation.

To determine which set of Method 1 soil standards (i.e., S-1, S-2, or S-3) to use in these comparisons, an assessment was made based on the relevant MCP criteria. In general, these criteria require consideration of the property type, accessibility of the soils (relative to their depth and presence of pavement and buildings), potential uses of the area(s) by adults and children, and the relative frequency and intensity of such use (see 310 CMR 40.0933). The Silver Lake RAA includes commercial, recreational, and residential areas. A summary of the Method 1 soil standards selected for each type of area is presented below.

- For commercial areas, it was assumed that: (1) children are generally not present; (2) adult workers in the commercial operations would have a high frequency of use (based on the potential for such individuals to be present for 8 hours or more per day on a continuing basis), but would have low intensity of use since such individuals would typically not be engaged in activities that would disturb the soil; and (3) if groundskeepers are present, they could have a high intensity of use but would have a low frequency since they would not be expected to engage in groundskeeping activities for full days on a continuing basis. Based on these considerations, the Method 1 S-2 soil standards were selected to apply to surface soils within the upper 3 feet of the area – i.e., the 0- to 1-foot and the 0- to 3-foot depth increments. The category S-3 standards were determined to apply to subsurface soils, which include the 1- to 6-foot and the 0- to 15-foot depth increments. These are the standard categories that were approved by EPA for application to these depth increments at commercial properties at the Former Oxbow Areas.

- For recreational areas, it was conservatively assumed that both child and adult use could occur, and that the potential frequency and intensity of such use could be "high" for soils in the top 3 feet. As a result, the Method 1 S-1 soil standards were selected to apply to all relevant depth increments at these areas – i.e., the 0- to 1-foot and 1- to 3-foot or 0- to 3-foot depth increments (as applicable).

- For residential areas, the SOW provides for the use of Method 1 S-1 soil standards. Therefore for the 0- to 1-foot depth increment and for the 1- to X-foot increment (where X is the depth to which PCBs were detected, down to 15 feet), the average concentration in each depth increment was compared to Method 1 S-1 standards.

It should also be noted that the numerical values of the Method 1 soil standards can vary depending on the applicable MCP groundwater classification. For the Silver Lake RAA, two MCP groundwater classifications apply, depending on the specific location within the RAA: GW-2 groundwater is groundwater located within 15 feet of the ground surface and within 30 feet of occupied structures, while GW-3 groundwater applies to all areas within the RAA. For nearly all the constituents that were subject to this phase of the Appendix IX+3 evaluations at the Silver Lake RAA, the Method 1 soil standards for a given soil category are the same regardless of whether the groundwater is classified as GW-2 or GW-3. However, where there are differences, the more stringent soil standards were used.

A few constituents that were retained after the screening steps at one or more areas do not have MCP Method 1 soil standards. For two such constituents – sulfide and copper – GE has previously derived MCP Method 2 S-1 soil standards, which have been approved by EPA. For sulfide, the Method 2 standard was based on data for carbon disulfide (as a surrogate) and was presented in a memorandum to EPA and MDEP dated April 4, 2006; it is 633 ppm. For copper, the Method 2 standard was originally derived for the four residential properties at the Silver Lake RAA that were previously evaluated and remediated under the ACO with MDEP, and has been approved by EPA at other RAAs under the CD; it is 770 ppm. These Method 2 standards were used in lieu of Method 1 standards in the evaluations of all types of areas at the Silver Lake RAA where those constituents were retained; these Method 2 standards are (for convenience) included in the term "Method 1 standards" in the subsequent discussions of the non-PCB evaluations in this Conceptual Work Plan.

Finally, as also documented in GE's April 4, 2006 memorandum and discussed in the Addendum to the Third Interim PDI Report, GE, EPA, and MDEP have reached an additional agreement relating to sulfide. Under that agreement, if sulfide is retained after the initial screening step (which uses the Region 9 PRG for carbon disulfide as a surrogate) and is the only retained constituent at a given area with a concentration in excess of the applicable standard (either under existing conditions or after remediation to address certain constituents), no further evaluations related to sulfide or soil remediation to address sulfide are necessary, and GE will conclude that acceptable conditions exist. These situations are identified in the area-specific non-PCB evaluations in Section 4.

3.3.6 Area-Specific Risk Evaluations

For a number of commercial and recreational averaging areas at which the MCP Method 1 soil standards were exceeded for one or more non-PCB Appendix IX+3 constituents (other than dioxins/furans) in one or more of the relevant depth increments, area-specific risk evaluations were performed for these constituents. Such area-specific risk-evaluations have been performed for one residential non-bank area, one commercial non-bank area, the bank portions of two commercial properties (evaluated as recreational), and one designated recreational area on the northern side of the lake. For three of these areas (where the exceedances of the Method 1 soil standards were not substantial), the risk evaluations were performed for existing conditions, while the two remaining areas were evaluated under post-remediation conditions.

In accordance with the procedures specified in the SOW for area-specific risk evaluations, these area-specific risk evaluations were performed for all constituents that were retained for evaluation prior to the comparison to MCP Method 1 soil standards, and were based on the same average concentrations of those constituents that were used in the comparisons to Method 1 standards. These evaluations were based on the same exposure scenarios that were used in developing the applicable PCB Performance Standards, as set forth in EPA's PCB risk evaluation in Attachment A to Appendix D to the CD. For areas evaluated as residential, the risk evaluations used the Residential User scenario for the 0- to 1-foot and 1- to X-foot depth increments. For the areas evaluated as commercial, the evaluations applied the Commercial Groundskeeper scenario for the 0- to 1-foot and 0- to 3-foot depth increments and the Utility Worker scenario for the 1- to 6-foot and 0- to 15-foot depth increments. For the areas evaluated as recreational, the Child Recreational User scenario was applied to the 0- to 1-foot, 1- to 3-foot, and 0- to 3-foot depth increments.

In addition, the risk evaluations that were performed used the same exposure assumptions and parameter values that were used by EPA in Attachment A to Appendix D to the CD for developing the PCB Performance Standards for the same scenarios, except that for chemical-specific parameters (i.e., oral and dermal absorption factors), the evaluations used values recommended by EPA or MDEP. The evaluations also used standard EPA cancer and non-cancer toxicity values -- i.e., Cancer Slope Factors (CSFs) and non-cancer Reference Doses (RfDs) -- as set forth on EPA's Integrated Risk Information System (IRIS) (or, where such values are not available on IRIS, values taken from other EPA or MDEP sources), together with EPA's recommended Relative Potency Factors (RPFs) for carcinogenic PAHs.

Based on these inputs, the risk evaluations calculated a cumulative Excess Lifetime Cancer Risk (ELCR) for the retained carcinogenic constituents and a Hazard Index (HI) for the retained constituents with non-cancer RfDs. The resulting ELCRs and HIs were then compared (after rounding) with the benchmarks set forth in the SOW of 1×10^{-5} for cancer risks and a HI of 1 for non-cancer impacts.

For averaging areas where lead was retained (which include one area evaluated as residential and two as recreational), a different procedure had to be used since there are no EPA-prescribed toxicity values for lead. In accordance with EPA guidance, lead was evaluated through the use of a conservative model developed by EPA, the Integrated Exposure Uptake Biokinetic Model (IEUBK), which allows one to calculate blood lead levels in children who have been exposed to lead and then to compare the resulting levels with a "safe" blood lead level established by EPA. This model was used to back-calculate risk-based concentrations (RBCs) for lead in soil for use in the area-specific risk evaluations. These RBCs are 1,313 ppm for the Child Recreator Scenario at recreational areas (previously approved by EPA for use at other RAAs at this Site) and 400 ppm for the Residential User scenario at areas evaluated as residential. The average lead concentrations in each relevant depth increment at the areas evaluated were then compared to these RBCs.

The area-specific risk evaluations performed for Silver Lake RAA averaging areas are described and the results presented in Appendix F to this Conceptual Work Plan, which was prepared at GE's request by AMEC Earth & Environmental. The results are summarized, where applicable, in the area-specific evaluations presented in Section 4.

3.3.7 Post-Remediation Evaluations

For the averaging areas where the evaluations of non-PCB constituents under existing conditions indicated the need for remediation to address such constituents, such remediation has been proposed and evaluations were then conducted for the constituents under post-remediation conditions to demonstrate that the proposed remediation will achieve the Performance Standards for the non-PCB constituents. These post-remediation evaluations followed the same procedures described above for comparisons of dioxin/furan TEQs to the applicable PRGs, comparisons to the Method 1 soil standards, and (where necessary) area-specific risk evaluations.

The specific remediation actions proposed to achieve the non-PCB Performance Standards consist of soil removal/replacement. Soil removal actions were taken into account in the post-remediation evaluation in a similar way to the way in which they were considered for PCBs. Specifically, sample results from soil that is proposed for removal to address non-PCB constituents were eliminated from consideration, and it was assumed that such soil will

be replaced with an equal volume of clean soil containing the concentrations of organic and inorganic constituents listed in Table 2 of GE's *Proposed Backfill Data Set for CD Sites* (March 11, 2003). However, where removal is proposed to address non-PCB constituents in a given depth increment, the post-remediation evaluations for depth intervals that do not include that increment were based on existing conditions to be conservative. For example, if soil removal is proposed to address a sample collected from the 1- to 3-foot depth increment, the post-remediation evaluation for the 0- to 1-foot depth increment at that area did not incorporate that soil removal, even though the removal will in fact remove some of the soil from the top foot. Rather, the post-remediation evaluation for the 0- to 1-foot depth increment was based on existing conditions and only the post-remediation evaluations for the depth intervals that include the 1- to 3-foot depth increment took account of the soil removal.

4. PCB and Non-PCB Soil Evaluations

4.1 General

This section presents the results of the area-specific PCB and Appendix IX+3 evaluations which were performed for the identified averaging areas within the Silver Lake RAA in accordance with the evaluation procedures summarized in Section 3 of this Conceptual Work Plan.

In this section, the following information is presented for each of the averaging areas located within the Silver Lake RAA:

- Description of area and identification of Performance Standards;
- Evaluation of existing conditions with respect to PCBs and discussion of the need for remediation to address PCBs;
- Evaluation of existing conditions with respect to other Appendix IX+3 constituents and discussion of the need for remediation to address these constituents;
- Description of proposed remediation actions (shown on Figures 4-1 through 4-5);
- Evaluation of post-remediation conditions with respect to PCBs; and
- Evaluation of post-remediation conditions with respect to other Appendix IX+3 constituents, if required.

Following the discussion of above-referenced area-specific evaluations, this section presents an overall summary of the soil remediation actions proposed for the Silver Lake RAA, including soil removal volumes. As noted above, the proposed soil remediation and soil removal volumes described herein did not take into account any bank soil removals that will be implemented as part of the sediment remediation for Silver Lake, which may affect the extent and volume of soil-related removals.

In support of the evaluations presented in this section, GE has prepared backup documentation for these evaluations. Specifically, the spatial averaging tables and Theissen polygon maps developed in support of the area-specific PCB evaluations are presented in Appendix D. The evaluation tables developed in support of the Appendix IX+3 evaluations summarized herein are presented in Appendix E. Finally, the area-specific risk evaluations are presented in Appendix F.

As discussed in the following sections, although not required by the CD or SOW, GE has elected to evaluate a number of the bank and/or non-bank portions of commercial properties at this RAA under the Performance Standards that would be applicable to residential properties, and to achieve those standards. This approach will avoid the need to obtain EREs or to implement Conditional Solutions at these areas. These instances are identified in the following sections where relevant

4.2 Evaluations for Parcel I9-9-1 (Residential Bank Area)

As shown on Figure 1-2, Parcel I9-9-1 is a residential property bordered to the east by Parcel I9-9-9, to the south by Parcel I9-9-2, to the west by Esther Terrace, and to the north by Silver Lake. The boundary of the Silver Lake RAA does not extend beyond the bank portion of Parcel I9-9-1. The applicable Performance Standards for this area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above).

4.2.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the bank portion of Parcel I9-9-1 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.2 above. In this case, as shown in Table 3, GE is proposing an X-depth of 8 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 8-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-1	46.22	2
1 – 8'	D-2	13.92	2

As indicated in the preceding table, the existing average PCB concentrations exceed the corresponding Performance Standard in both depth increments. As a result, remediation is required to achieve that standard.

4.2.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-1 are presented in Table E-1. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.2.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-2 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Arsenic
- Lead
- Sulfide
- Thallium

These constituents were retained for further evaluation. In addition, since there are no such screening criteria for dioxin/furan TEQs, these constituents were also retained for further evaluation.

4.2.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-3 and E-4 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 8-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, existing concentrations of lead and/or arsenic are (or were prior to delineation sampling) greater than the applicable Method 1 soil standards in the 0- to 1-foot and 1- to 8-foot depth increments. In this situation, GE is proposing to remove soil in the vicinity of sample locations I9-9-1-SB-5, I9-

9-1-SB-5N, I9-9-1-SB-5S, I9-9-1-SB-6, I9-9-1-SB-6S, and I9-9-1-SB-6SS to address elevated levels of lead and/or arsenic.

4.2.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-1 to the limits shown on Figure 4-4. This remediation will involve the excavation of approximately 930 cubic yards of soil. It should be noted that while PCBs were detected to a depth of 8 feet and therefore the X-depth for the bank portion of Parcel I9-9-1 is 8 feet (as discussed in Section 4.2.1 above), elevated levels of lead and arsenic in the 7- to 9-foot depth increment necessitate soil removal/replacement activities to a depth of 9 feet at this parcel. Performance of these activities will result in the achievement of the applicable Performance Standards, as demonstrated in Sections 4.2.4 and 4.2.5, respectively.

4.2.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-4 will result in the achievement of the PCB Performance Standard for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-3	0.02	2
1 - 8'	D-4	0.35	2

4.2.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

To address non-PCB constituents, GE will remove certain soils associated with the 0- to 1-foot depth increment at sample location I9-9-1-SB-5 and certain soils associated with the 1- to 3-foot, 3- to 5-foot, 5- to 7-foot, and 7- to 9-foot depth increments at some or all of sample locations I9-9-1-SB-5, I9-9-1-SB-5N, I9-9-1-SB-5S, I9-9-1-SB-6, I9-9-1-SB-6S, and I9-9-1-SB-6SS. Tables E-5 and E-6 present the post-remediation evaluations of non-PCB constituents in the 0- to 1-foot depth and greater than 1-foot depth increments. As shown in these tables, post-remediation concentrations of all such constituents will be below the applicable PRG or Method 1 soil standards (except for sulfide in the greater than 1-foot depth increment, for which additional remediation is not required per agreement with EPA and MDEP, as discussed in Section 3.3.5). Thus, the remediation proposed for the bank portion of Parcel I9-9-1 will achieve the applicable Performance Standards for this area.

4.3 Evaluations for Parcel I9-9-9 (Residential Bank and Non-Bank Areas)

As shown on Figure 1-2, Parcel I9-9-9 is a residential property bordered to the east by Parcel I9-9-201, to the south by Parcel I9-9-10, to the west by Parcel I9-9-1, and to the north by Silver Lake. The boundary of the Silver Lake RAA extends beyond the bank portion of this parcel to also include a small portion of non-bank area near the eastern portion of the parcel. The bank and non-bank portions of Parcel I9-9-9 are evaluated separately below. The applicable Performance Standards for both areas require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above). Since the non-bank area is not greater than 0.25 acre in size, the PCB NTE criterion of 10 ppm in the top foot of soil is not applicable.

4.3.1 Parcel I9-9-9 (Bank Soils)

4.3.1.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the bank soils of Parcel I9-9-9 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.3 above. In this case, as shown in Table 3, GE is proposing an X-depth of 9 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 9-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-5	28.35	2
1 – 9'	D-6	12.01	2

As indicated in the preceding table, the existing average PCB concentrations exceed the Performance Standard in both the 0- to 1-foot and 1- to 9-foot depth increments. As a result, remediation is required to achieve that standard.

4.3.1.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-9 are presented in Table E-7. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.3.1.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their Screening PRGs. Table E-8 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in Table E-8, the following remaining constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Lead
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.3.1.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-9 and E-10 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 9-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, certain other constituents have (or had prior to delineation sampling) existing average concentrations greater than the applicable Method 1 soil standards in the 1- to 9-foot depth increment. In this situation, GE is proposing to remove soil in the vicinity of sample location I9-9-9-SB-2/BH001031 due to elevated levels of lead and PAHs, and in the vicinity of sample location I9-9-9-SB-3 due to elevated levels of lead.

4.3.1.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at the bank portion of Parcel I9-9-9 to the limits shown on Figure 4-4. This remediation will involve the excavation of approximately 420 cubic yards of soil. Performance of these activities will result in the achievement of the applicable Performance Standards, as demonstrated in Sections 4.3.1.4 and 4.3.1.5, respectively.

4.3.1.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-4 will result in the achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-7	0.10	2
1 - 9'	D-8	0.76	2

4.3.1.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

As indicated above, GE will remove soils associated with the 1- to 3-foot depth increment at sample location I9-9-9-SB-3 due to elevated lead concentrations, and soils associated with the 7- to 9-foot depth increment at sample location I9-9-9-SB-2/BH001031 due to elevated PAHs and lead concentrations. Table E-11 presents the post-remediation evaluation of non-PCB constituents in the 1- to 9-foot depth increment. Although the proposed remediation will also remove soil from the top foot, Table E-9, which presents the evaluation of non-PCB constituents in the 0- to 1-foot depth increment under existing conditions, has been used to evaluate the post-remediation conditions to be conservative. As shown in these tables, post-remediation concentrations of all retained constituents at this area will be below the applicable PRG or Method 1 soil standards. Thus, the remediation proposed for the bank portion of Parcel I9-9-9 will achieve the applicable Performance Standards for this area.

4.3.2 Parcel I9-9-9 (Non-Bank Soils)

4.3.2.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the non-bank soils of Parcel I9-9-9 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.3 above. In this case, as noted in Table 3 PCBs were detected to a depth of 11 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 11-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-9	9.39	2
1 – 11'	D-10	9.23	2

As indicated in the preceding table, the existing average PCB concentrations exceed the Performance Standard for the 0- to 1-foot and 1- to 11-foot depth increments. As a result, remediation is required to achieve that standard.

4.3.2.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the non-bank portion of Parcel I9-9-9 are presented in Table E-12. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.3.2.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their Screening PRGs. Table E-13 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in Table E-13, the following remaining constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Arsenic
- Lead
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.3.2.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-14 and E-15 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 11-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, average concentrations of the other retained constituents in the 0- to 1-foot depth increment are less than their corresponding MCP Method 1 soil standards. However, since the existing average concentration of lead in the 1- to 11-foot depth increment slightly exceeds the applicable Method 1 standard, an area-specific risk evaluation has been performed for this area.

That risk evaluation is included in Appendix F to this Conceptual Work Plan and indicates that, under existing conditions, cancer risks and non-cancer hazards due to the retained constituents in the 0- to 1 and 1- to 11-foot depth increments do not exceed the benchmarks specified in the SOW, and that the average lead concentrations in both depth increments are below the applicable RBC. As a result, no remediation for non-PCB Appendix IX+3 constituents is necessary at this area.

4.3.2.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at the non-bank portion of Parcel I9-9-9 to the limits shown on Figure 4-4. This remediation will involve the excavation of approximately 135 cubic yards of soil. Performance of these activities will result in the achievement of the applicable PCB Performance Standard, as demonstrated in Section 4.3.2.4.

4.3.2.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-4 will result in the achievement of the PCB Performance Standard for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-11	0.15	2
1 - 11'	D-12	1.57	2

4.4 Evaluations for Parcel I9-9-17 (Residential Bank Area)

As shown on Figure 1-2, Parcel I9-9-17 is a residential property bordered to the east by Parcel I9-9-18, to the south by Parcel I9-9-15 and Fenn Street, to the west by Parcel I9-9-201, and to the north by Silver Lake. The boundary of the Silver Lake RAA includes only the bank portion of Parcel I9-9-17. The applicable Performance Standards for this area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above).

4.4.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the bank portion of Parcel I9-9-17 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.4 above. In this case, as noted in Table 3, PCBs were detected to a depth of 5 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 5-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-13	0.69	2
1 – 5'	D-14	1.45	2

As indicated in the preceding table, the existing average PCB concentrations are below the Performance Standard for the 0- to 1-foot and 1- to 5-foot depth increments. As a result, no remediation is required to achieve that standard.

4.4.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-17 are presented in Table E-16. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.4.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-17 identifies the detected constituents and provides a comparison of the maximum detected concentration for each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Lead

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.4.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-18 and E-19 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 5-foot depth increments. As indicated in those tables, none of the samples had dioxin/furan TEQ concentrations greater than the applicable PRG. However, the existing

average concentration of lead is greater than the applicable Method 1 soil standards in the 1- to 5-foot depth increment. Therefore, GE is proposing to remove soil in the vicinity of sample location I9-9-17-SB-2 due to an elevated level of lead.

4.4.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-17 to the limits shown on Figure 4-3. This remediation will involve the excavation of approximately 175 cubic yards of soil. Performance of these activities will result in lower average PCB concentrations and achievement of the applicable Appendix IX+3 Performance Standards for this area, as demonstrated in Sections 4.4.4 and 4.4.5.

4.4.4 PCB Evaluation – Post-Remediation Conditions

As shown on Figure 4-3, the proposed remediation will remove soil to a depth of 5 feet in a portion of this area (and to a depth of 3 feet in a small adjacent portion) to address non-PCB constituents. While existing concentrations of PCBs prior to this remediation already achieved the applicable PCB Performance Standard (as noted in Section 4.4.1), this remediation will further lower the PCB concentrations for the relevant depth increments at this bank area.

4.4.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove soils associated with the 3- to 5-foot depth increment at sample location I9-9-17-SB-2 due to elevated lead concentrations. Table E-20 presents the post-remediation evaluation of non-PCB constituents in the 1- to 5-foot depth increment. Although the proposed remediation will also remove soil from the top foot, Table E-18, which presents the evaluation of non-PCB constituents in the 0- to 1-foot depth increment under existing conditions, has been used to evaluate the post-remediation conditions to be conservative. As shown in these tables, post-remediation concentrations of all retained constituents at this area will be below the applicable PRG or Method 1 soil standards. Thus, the remediation proposed for this portion of Parcel I9-9-17 will achieve the applicable Performance Standards for this area.

4.5 Evaluations for Parcel I9-9-18 (Residential Bank Area)

As shown on Figure 1-2, Parcel I9-9-18 is a residential property bordered to the east by Parcel I9-9-19, to the south by Fenn Street, to the west by I9-9-17, and to the north by Silver Lake. The boundary of the Silver Lake RAA includes only the bank portion of Parcel I9-9-18. The applicable Performance Standards for this area require the removal/

replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above).

4.5.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the bank portion of Parcel I9-9-18 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.5 above. In this case, as shown in Table 3, GE is proposing an X-depth of 3 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 3-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-17	5.78	2
1 – 3'	D-18	13.51	2

As indicated in the preceding table, the existing average PCB concentrations in both depth increments exceed the Performance Standard. As a result, remediation is required to achieve that standard.

4.5.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-18 are presented in Table E-21. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.5.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-22 identifies the detected constituents and provides a comparison of the maximum detected concentration for each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Antimony
- Arsenic
- Lead

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.5.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-23 and E-24 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, none of the samples had dioxin/furan TEQ concentrations greater than the applicable PRG. However, the average concentration of antimony in the 0- to 1-foot depth increment exceeded its Method 1 soil standard prior to delineation sampling, and the average concentration of lead in the 1- to 3-foot depth increment exceeded its Method 1 soil standard. Therefore, GE is proposing to remove soil in the vicinity of sample location I9-9-18-SB-1 due to elevated levels of antimony and lead.

4.5.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-18 to the limits shown on Figure 4-3. This remediation will involve the excavation of approximately 45 cubic yards of soil. Performance of these activities will result in the achievement of the applicable PCB and Appendix IX+3 Performance Standards, as demonstrated in Section 4.5.4 and 4.5.5, respectively.

4.5.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-3 will result in the achievement of the PCB Performance Standard for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-19	0.61	2
1 – 3'	D-20	0.02	2

4.5.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove certain soils associated with the 0- to 1-foot and 1- to 3-foot depth increments at sample location I9-9-18-SB-1 due to elevated antimony and lead concentrations. Tables E-25 and E-26 present the post-remediation evaluations of non-PCB constituents in those depth increments. As shown in these tables, post-remediation concentrations of all retained constituents at this area will be below the applicable PRG or Method 1 soil standards. Thus, the remediation proposed for the bank portion of Parcel I9-9-18 will achieve the applicable Performance Standards for this area.

4.6 Evaluations for Parcel I9-9-19 (Residential Bank Area)

As shown on Figure 1-2, Parcel I9-9-19 is a residential property bordered to the east by Parcels I9-9-20 and I9-9-21, to the south by Fenn Street, to the west by I9-9-18, and to the north by Silver Lake. The boundary of the Silver Lake RAA includes only the bank portion of Parcel I9-9-19. The applicable Performance Standards for this area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above).

4.6.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the bank portion of Parcel I9-9-19 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.6 above. In this case, as noted in Table 3, PCBs were detected to a depth of 3 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 3-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-21	2.17	2
1 – 3'	D-22	4.40	2

As indicated in the preceding table, the existing average PCB concentrations in both depth increments exceed the Performance Standard. As a result, remediation is required to achieve that standard.

4.6.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-19 are presented in Table E-27. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.6.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-28 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)pyrene
- Arsenic
- Lead

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.6.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-29 and E-30 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, average concentrations of lead are greater than the applicable Method 1 soil standard in the 0- to 1-foot and 1- to 3-foot depth increments. Therefore, GE is proposing to remove soil in the vicinity of sample location I9-9-18-SB-2 in the 0- to 1-foot and 1- to 3-foot depth increments, and in the vicinity of sample locations I9-9-18-SB-2S and I9-9-18-2W in the 0- to 1-foot depth increment, due to elevated levels of lead.

4.6.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-19 to the limits shown on Figure 4-3. This remediation will involve the excavation of approximately 70 cubic yards of soil. Performance of these activities will result in the achievement of the applicable PCB and Appendix IX+3 Performance Standards, as demonstrated in Section 4.6.4 and 4.6.5, respectively.

4.6.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-3 will result in the achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-23	0.39	2
1 – 3'	D-24	0.24	2

4.6.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

As noted above, GE will remove soils associated with the 0- to 1-foot depth increment at sample locations I9-9-19-SB-2, I9-9-19-SB-2S, and I9-9-19-SB-2W, and the 1- to 3-foot depth increment at sample location I9-9-19-SB-2, due to elevated concentrations of lead. Tables E-31 and E-32 present the post-remediation evaluations of non-PCB constituents in the 0- to 1-foot and 1- to 3-foot depth increments. As shown in those tables, post-remediation concentrations of all retained constituents at this bank area will be below the applicable PRG or Method 1 soil standards. Accordingly, the remediation proposed for the

bank portion of Parcel I9-9-19 will achieve the applicable Performance Standards for this area.

4.7 Evaluations for Parcel I9-9-21 and I9-9-22 (Bank and Non-Bank Portions of Commercial Property)

As shown on Figure 1-2 and discussed in previous interim PDI Reports, Parcels I9-9-21 and I9-9-22 are adjacent commercial tax parcels under common ownership, and are treated by the owner as one property. Therefore, these parcels have been evaluated as a single property. Parcels I9-9-21 and I9-9-22 are bordered to the east by Parcel I9-9-23, to the south by East Street, to the west by I9-9-19 and I9-9-20, and to the north by Silver Lake. The boundary of the Silver Lake RAA extends beyond the bank portion of Parcels I9-9-21 and I9-9-22 to also include a small portion of non-bank area. The bank and non-bank portions of Parcels I9-9-21 and I9-9-22 are evaluated separately below.

The owner of these parcels has decided not to execute an ERE. Hence, GE must implement a Conditional Solution at this area. Under a Conditional Solution, the applicable Performance Standards for the bank portion of Parcels I9-9-21 and I9-9-22 require the removal/replacement of soils as necessary to achieve a spatial average PCB concentration of 10 ppm in the 0- to 1-foot and 0- to 3-foot depth increments. The applicable Performance Standards for the non-bank portion of Parcels I9-9-21 and I9-9-22 require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 25 ppm in the 0- to 1-foot and 0- to 3-foot depth increments and 200 ppm in the 1- to 6-foot depth increment, and installation of an engineered barrier if the remaining spatial average PCB concentration exceeds 100 ppm in the 0- to 15-foot depth increment. Since the non-bank portion of this area is less than 0.5 acre in size, the PCB NTE concentration for commercial properties does not apply.

4.7.1 Parcels I9-9-21 and I9-9-22 (Bank Soils)

4.7.1.1 PCB Evaluation – Existing Conditions

The evaluation process for the bank portion of Parcels I9-9-21 and I9-9-22 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.7 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard under a Conditional Solution scenario:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-25	7.69	10
0 – 3'	D-26	5.85	10

As indicated in the preceding table, the existing average PCB concentrations are below the applicable Performance Standard. As a result, no remediation is required to achieve that standard.

4.7.1.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcels I9-9-21 and I9-9-22 are presented in Table E-33. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.7.1.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-34 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Lead

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.7.1.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables D-35 and D-36 present the evaluations of retained constituents for the 0- to 1-foot and 0- to 3-foot depth increments, respectively. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, average concentrations for the other retained constituents are less than their corresponding MCP Method 1 soil standards. As a result, no remediation is necessary to achieve the Appendix IX+3 Performance Standards at this evaluation area.

4.7.2 Parcels I9-9-21 and I9-9-22 (Non-Bank Soils)

4.7.2.1 PCB Evaluation – Existing Conditions

The evaluation process for the non-bank portion of commercial Parcels I9-9-21 and I9-9-22 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the depth increments specified in Section 4.7 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards under a Conditional Solution scenario:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-27	3.84	25
0 – 3'	D-28	9.09	25
1 – 6'	D-29	16.50	200
0 – 15'	D-30	44.63	100

As indicated in the preceding table, the existing average PCB concentrations are below the applicable Performance Standards. As a result, no remediation is required to achieve those standards.

4.7.2.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the non-bank portion of Parcels I9-9-21 and I9-9-22 are presented in Table E-37. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.7.2.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-38 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- 1,2,3-Trichloropropane
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Phenanthrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.7.2.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRGs.

Tables E-39 through E-42 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, 1- to 6-foot, and 0- to 15-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRGs. However, benzo(a)pyrene has an existing average concentration greater than the applicable Method 1 soil standards in the 0- to 3-foot depth increment (and there is no Method 1 soil standard for 1,2,3-trichloropropane). Accordingly, an area-specific risk evaluation has been performed for the soils at this area in its existing condition.

That risk evaluation is included in Appendix F to this Conceptual Work Plan and indicates that, under existing conditions, both cancer risks and non-cancer hazards due to the retained constituents in the 0 to 1-foot, 0- to 3-foot, 1- to 6-foot, and 0- to 15-foot depth increment are below the benchmarks specified in the SOW. As a result, no remediation for non-PCB Appendix IX+3 constituents is necessary at this area.

4.8 Evaluations for Parcel I9-9-23 (Bank Portion of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-23 is a commercial property bordered to the east by Parcel I9-9-24, to the south by East Street, to the west by I9-9-22, and to the north by Silver Lake. The boundary of the Silver Lake RAA does not extend beyond the bank portion of Parcel I9-9-23. GE proposes to evaluate the bank portion of this property within the Silver Lake RAA to meet residential Performance Standards. Under a residential scenario, the applicable Performance Standards for this area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above).

4.8.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the bank portion of Parcel I9-9-23 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.8 above. In this case, as shown in Table 3, GE is proposing an X-depth of 3 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 3-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the residential Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-31	0.17	2
1 – 3'	D-32	0.29	2

As indicated in the preceding table, the existing average PCB concentrations are below the residential Performance Standard in both the 0- to 1-foot and 1- to 3-foot depth increments. As a result, no remediation is required to achieve that standard.

4.8.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-23 are presented in Table E-43. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.8.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituent (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-44 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)pyrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.8.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-45 and E-46 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment. Accordingly, no remediation for Appendix IX+3 constituents is necessary at this area.

4.9 Evaluations for Parcel I9-9-24 (Residential Bank and Non-Bank Area)

As shown on Figure 1-2, Parcel I9-9-24 is a residential property bordered to the east by Parcel I9-9-25, to the south by East Street, to the west by I9-9-23, and to the north by Silver Lake. The boundary of the Silver Lake RAA includes both bank and non-bank portions of Parcel I9-9-24. As discussed in previous interim PDI Reports, GE has evaluated both the

bank and non-bank portions of the property together as a single residential averaging area, since exposure conditions are similar throughout that area. The applicable Performance Standards for this area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above).

4.9.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for Parcel I9-9-24 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.5 above. In this case, as noted in Table 3, PCBs were detected to a depth of 15 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 15-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-33	1.31	2
1 – 15'	D-34	14.71	2

As indicated in the preceding table, the existing average PCB concentration exceeds the Performance Standard for the 1- to 15-foot depth increment. As a result, remediation is required to achieve the PCB Performance Standard at this area.

4.9.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for Parcel I9-9-24 are presented in Table E-47. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.9.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRG. Table E-48 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Aniline
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Antimony
- Arsenic
- Cadmium
- Chromium
- Copper
- Cyanide
- Lead
- Mercury
- Sulfide
- Thallium

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.9.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-49 and E-50 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 15-foot depth increments. As indicated in those tables, the maximum dioxin/furan TEQ concentration in the 1- to 15-foot depth increment exceeds the applicable PRG. In addition, certain inorganic compounds have existing concentrations greater than the applicable Method 1 soil standards in the 1- to 15-foot depth increment. In this situation, GE is proposing to remove soil in the vicinity of the following sample locations due to elevated levels of dioxin/furan TEQs and certain inorganic constituents: I9-9-24-SB-1, I9-9-24-SB-2, I9-9-24-SB-2-SE, and I9-9-24-SB-2-SES.

4.9.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-24 to the limits shown on Figure 4-2. This remediation will involve the excavation of approximately 980 cubic yards of soil. Performance of these activities will result in the achievement of the applicable PCB and Appendix IX+3 Performance Standards, as demonstrated in Section 4.9.4 and 4.9.5, respectively.

4.9.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-2 will result in the achievement of the PCB Performance Standard for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-35	0.36	2
1 – 15'	D-36	0.43	2

4.9.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove soils associated with the 9- to 11-foot depth increment at sample locations I9-9-24-SB-1, I9-9-24-SB-2-SE, and I9-9-24-SB-2-SES due to elevated levels of certain inorganic constituents (namely cadmium, chromium, copper, and lead), and soils associated with the 13- to 15-foot depth increment at sample location I9-9-24-SB-2 due to elevated levels of dioxin/furan TEQs and several inorganic constituents (namely arsenic, cadmium, chromium, copper, and lead). Table E-51 presents the post-remediation evaluation of the retained non-PCB constituents in the 1- to 15-foot depth increment in comparison. Although the proposed remediation will also remove soil from the top foot, Table E-49, which presents the evaluation of non-PCB constituents in the 0- to 1-foot depth increment under existing conditions, has been used to evaluate the post-remediation conditions to be conservative. As shown in those tables, post-remediation conditions for the retained non-PCB constituents will achieve applicable PRGs for dioxin/furan TEQs and the MCP Method 1 soil standards for other constituents, with two qualifications:

- As noted above, aniline was found to have a maximum detected concentration exceeding its corresponding Screening PRG. There is no MCP Method 1 soil standard for aniline. As discussed in the Fourth Interim PDI Report, given that: (1) aniline was detected only in the 13- to 15-foot depth sample at location I9-9-24-SB-2; (2) the average existing concentration in the 1- to 15-foot depth increment (35.6 ppm) is well below the EPA PRG for aniline (78 ppm); and (3) the soil in and around location I9-9-24-SB-2 will be removed to a depth of 15 feet below ground surface to address PCBs and other constituents (namely, dioxin/furans, cadmium, chromium, copper, and lead), GE believes that there is no need for delineation sampling or additional remediation for aniline at this parcel.

- After the foregoing evaluations, sulfide is the only remaining constituent with an average concentration (in the 1- to 15-foot depth increment) exceeding the applicable standard. Accordingly, under GE's agreement with EPA and MDEP described in Section 3.3.5, no further evaluations related to sulfide or soil remediation to address sulfide are necessary, and GE has concluded that acceptable conditions exist.

For these reasons, the remediation proposed for Parcel I9-9-24 will achieve the applicable Performance Standards for this area and no further sampling or remediation is necessary.

4.10 Evaluations for Parcel I9-9-25 (Bank and Non-Bank Portions of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-25 is commercial property bordered to the east by Parcel I9-9-26, to the south by East Street, to the west by I9-9-24, and to the north by Silver Lake. The boundary of the Silver Lake RAA extends beyond the bank portion of this parcel to include a portion of non-bank area. The bank and non-bank portions of Parcel I9-9-25 are evaluated separately below. The owner of this parcel has not yet advised GE whether it is willing to execute an ERE. Therefore, GE has prepared this Conceptual Work Plan to ensure that this area would meet the applicable Performance Standards either for a property with an ERE or for a property with a Conditional Solution.

For the bank soils, the applicable Performance Standards require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment (if an ERE is obtained) or 10 ppm in the 0- to 3-foot depth increment (if an ERE is not obtained). For the non-bank soils, if an ERE is obtained, GE must remove/replace soils as necessary to achieve spatial average PCB concentrations of 25 ppm in the top foot and 200 ppm in the 1- to 6-foot depth increment, and must install an engineered barrier if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment exceeds 100 ppm. Under a Conditional Solution, the applicable Performance Standards for the non-bank soils would be the same, with the additional requirement to achieve a spatial average PCB concentration of 25 ppm in the 0- to 3-foot depth increment. Since the non-bank portion of Parcel I9-9-24 is less than 0.25 acre in size, the NTE criterion does not apply.

4.10.1 Parcel I9-9-25 (Bank Soils)

4.10.1.1 PCB Evaluation – Existing Conditions

The evaluation process for the bank portion of Parcel I9-9-25 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in

Section 4.10 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards, under both ERE and Conditional Solution scenarios:

ERE Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-37	0.77	10
1 – 3'	D-39	2.91	15

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-37	0.77	10
0 – 3'	D-38	2.20	10

As indicated in the preceding tables, the existing average PCB concentrations are below the Performance Standards. As a result, no remediation is required to achieve those standards.

4.10.1.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-25 are presented in Table E-52. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.10.1.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-53 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.10.1.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-54 through E-56 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment (except for sulfide, for which additional remediation is not required per agreement with EPA and MDEP, as discussed in Section 3.3.5). Since existing concentrations meet the applicable Performance Standards, no remediation for Appendix IX+3 constituents is necessary at this area.

4.10.2 Parcel I9-9-25 (Non-Bank Soils)

4.10.2.1 PCB Evaluation – Existing Conditions

The evaluation process for the non-bank portion of Parcel I9-9-25 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.10 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards, under both ERE and Conditional Solution scenarios:

ERE Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-40	0.53	25
1 – 6'	D-42	3.93	200
0 – 15'	D-43	1.43	100

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-40	0.53	25
0 – 3'	D-41	5.17	25
1 – 6'	D-42	3.93	200
0 – 15'	D-43	1.43	100

As indicated in the preceding tables, the existing average PCB concentrations are below the Performance Standards. As a result, no remediation is required to achieve those standards.

4.10.2.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the non-bank portion of Parcel I9-9-25 are presented in Table E-57. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.10.2.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-58 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Dibenzo(a,h)anthracene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.10.2.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRGs.

Tables E-59 through E-62 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, 1- to 6-foot, and 0- to 6-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRGs. In addition, the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment. Accordingly, the non-PCB Performance Standards are achieved under existing conditions, and no remediation for such constituents is necessary at this area.

4.11 Evaluations for Parcel I9-9-30 (Bank and Non-Bank Portions of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-30 is a commercial property bordered to the east by Parcel I9-9-31, to the south by East Street, to the west by I9-9-29, and to the north by Silver Lake. The boundary of the Silver Lake RAA extends beyond the bank portion of this Parcel to also include a portion of non-bank area. The bank and non-bank portions of Parcel I9-9-30 are evaluated separately below. GE proposes to evaluate both portions of this property that are within the Silver Lake RAA to meet residential Performance Standards. The applicable residential Performance Standards require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above). Since the non-bank area is not greater than 0.25 acre in size, the PCB NTE criterion is not applicable.

4.11.1 Parcel I9-9-30 (Bank Soils)

4.11.1.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the bank portion of Parcel I9-9-30 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.11 above. In this case, as shown in Table 3, GE is proposing an X-depth of 3 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 3-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the residential Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-44	0.35	2
1 – 3'	D-45	0.96	2

As indicated in the preceding table, the existing average PCB concentrations are below the residential Performance Standard in both the 0- to 1-foot and 1- to 3-foot depth increments. As a result, no remediation is required to achieve that standard.

4.11.1.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-30 are presented in Table E-63. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.11.1.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-64 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)pyrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.11.1.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-65 and E-66 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment. Accordingly, the non-PCB Performance Standards are achieved under existing conditions, and no remediation for such constituents is necessary at this area.

4.11.2 Parcel I9-9-30 (Non-Bank Soils)

4.11.2.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the non-bank portion of Parcel I9-9-30 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.11 above. In this case, as noted in Table 3, PCBs were detected to a depth of 6 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 6-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the residential Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-46	0.45	2
1 – 6'	D-47	1.17	2

As indicated in the preceding table, the existing average PCB concentrations are below the residential Performance Standard in both the 0- to 1-foot and 1- to 6-foot depth increments. As a result, no remediation is required to achieve that standard.

4.11.2.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the non-bank portion of Parcel I9-9-30 are presented in Table E-67. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.11.2.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-68 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.11.2.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRGs (or other comparison criteria).

Tables E-69 and E-70 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 6-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. While the average concentration of dibenzo(a,h)anthracene in the 0- to 1-foot depth increment (i.e., 1.05 ppm) does exceed the MCP Method 1 standard of 0.7 ppm, there were in fact no detections of this constituent in that depth increment. This "exceedance" is due only to the fact that an elevated detection limit was observed in the sample collected from this depth increment at I9-9-30-SB-12. Due to this, and since the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment, it is concluded

that the non-PCB Performance Standards are achieved under existing conditions and that no remediation for such constituents is necessary at this area.

4.12 Evaluations for Parcel I9-9-31 (Bank Portion of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-31 is a commercial property bordered to the northeast by Parcel I9-9-32, to the southeast by East Street, to the southwest by I9-9-30, and to the northwest by Silver Lake. The boundary of the Silver Lake RAA does not extend beyond the bank of Parcel I9-9-31. GE proposes to evaluate this bank area to meet residential Performance Standards. Under a residential scenario, the applicable Performance Standards for this area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above).

4.12.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for Parcel I9-9-31 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.12 above. In this case, as shown in Table 3, GE is proposing an X-depth of 3 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 3-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the residential Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-48	0.42	2
1 – 3'	D-49	0.41	2

As indicated in the preceding table, the existing average PCB concentrations are below the residential Performance Standard in both the 0- to 1-foot and 1- to 3-foot depth increments. As a result, no remediation is required to achieve that standard.

4.12.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-31 are presented in Table E-71. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.12.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituent (other than dioxins/furans) were compared to their corresponding Screening PRG. Table E-72 identifies the detected constituents and provides a comparison of the maximum detected concentration for each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)pyrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.12.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-73 and E-74 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment. Accordingly, the non-PCB Performance Standards are achieved under existing conditions and no remediation for such constituents is necessary at this area. It should be noted, however, that GE is proposing remediation to address certain non-PCB constituents at adjacent Parcel I9-9-32, specifically soil removal in the vicinity of sample location I9-9-32-SB-3, and a segment of this soil removal will take place within the bank portion of Parcel I9-9-31.

4.12.3 Proposed Remediation

Although soil removal is not necessary at Parcel I9-9-31 to meet the applicable PCB and Appendix IX+3 performance standards, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-31 to the limits shown on Figure 4-1 as part of soil removal/replacement activities on adjacent Parcel I9-9-32. This remediation will involve the excavation of approximately 10 cubic yards of soil.

4.12.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation will remove soil in the top three feet around sample location I9-9-32-SB-3. While existing concentrations of PCBs prior to this remediation already achieve the residential PCB Performance Standard as noted in Section 4.12.1, this remediation will further lower the PCB concentrations for the relevant depth increments at this parcel.

4.13 Evaluations for Parcel I9-9-32 (Bank Portion of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-32 is a commercial property bordered to the northeast by Parcel I9-9-33, to the southeast by East Street, to the southwest by I9-9-31, and to the northwest by Silver Lake. The boundary of the Silver Lake RAA does not extend beyond the bank of Parcel I9-9-32. The owner of this parcel not yet advised GE whether he is willing to execute an ERE. Therefore, GE has prepared this Conceptual Work Plan to ensure that this area would meet the applicable Performance Standards either for a property with an ERE or for a property with a Conditional Solution. If an ERE is executed, the applicable Performance Standards for the bank soils would require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment. Under a Conditional Solution, the applicable Performance Standards for the bank soils would require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 0- to 3-foot depth increment.

4.13.1 PCB Evaluation – Existing Conditions

The evaluation process for the bank portion of Parcel I9-9-32 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.13 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards, under both ERE and Conditional Solution scenarios:

ERE Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-52	0.19	10
1 – 3'	D-54	30.62	15

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-52	0.19	10
0 – 3'	D-53	20.48	10

As indicated in the preceding table, the existing average PCB concentrations exceed the corresponding Performance Standards in the 1- to 3-foot and 0- to 3-foot depth increments. As a result, remediation is required to achieve those standards at this area.

4.13.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-32 are presented in Table E-75. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.13.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-76 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.13.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-77 through E-79 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot (Conditional Solution Alternative), and 1- to 3-foot (ERE Alternative) depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, certain PAH compounds had existing concentrations greater than the applicable Method 1 soil standards in the 0- to 3-foot and 1- to 3-foot depth increments prior to delineation sampling. In this situation, GE is proposing to remove soil in the vicinity of sample location I9-9-32-SB-3 due to elevated levels of PAHs.

4.13.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-32 to the limits shown on Figure 4-1. This remediation will involve the excavation of approximately 100 cubic yards of soil regardless of obtaining an ERE or implementing a Conditional Solution. Performance of these activities will result in the achievement of the applicable PCB and Appendix IX+3 Performance Standards, as demonstrated in Section 4.13.4 and 4.13.5, respectively.

4.13.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-1 will result in the achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following table.

ERE Alternative

Depth Increment	Appendix D Table Reference	Post-Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-55	0.07	10
1 – 3'	D-57	0.06	15

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Post-Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-55	0.07	10
0 – 3'	D-56	0.06	10

4.13.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove soils associated with the 1- to 3- foot depth increment at I9-9-32-SB-3 due to elevated PAH levels. Tables E-80 and E-81 present the post-remediation evaluations of non-PCB constituents in the 0- to 3-foot and 1- to 3-foot depth increments. Although the proposed remediation will also remove soil from the top foot, Table E-77, which presents the evaluation of non-PCB constituents in the 0- to 1-foot depth increment under existing conditions, has been used to evaluate the post-remediation conditions to be conservative. As shown in these tables, the average post-remediation concentrations of the retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment (except for sulfide in the 0- to 1-foot depth increment, for which additional remediation is not required per agreement with EPA and MDEP, as discussed in Section 3.3.5). For these reasons, the proposed remediation for the bank portion of Parcel I9-9-32 will achieve the applicable Performance Standards for this area.

4.14 Evaluations for Parcel I9-9-33 (Bank Portion of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-33 is a commercial property bordered to the east by Parcel I9-9-34, to the southeast by East Street, to the southwest by I9-9-32, and to the north by Silver Lake. The boundary of the Silver Lake RAA does not extend beyond the bank of Parcel I9-9-33. The owner of this parcel has advised GE that he is willing to execute an ERE. Therefore, the applicable Performance Standards for the bank soils require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment.

4.14.1 PCB Evaluation – Existing Conditions

The evaluation process for the bank portion of Parcel I9-9-33 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.14 above. The following tables present the existing average PCB concentrations

that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-58	0.68	10
1 – 3'	D-60	1.06	15

As indicated in the preceding table, the existing average PCB concentrations are below the applicable Performance Standards. As a result, no remediation is required to achieve those standards.

4.14.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-33 are presented in Table E-82. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.14.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRG. Table E-83 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)pyrene
- Arsenic
- Mercury
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.14.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-84 and E-86 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, the existing concentration of mercury is greater than the applicable Method 1 soil standard in the 1- to 3-foot depth increment. Accordingly, an area-specific risk evaluation has been performed for the soils at this area in its existing condition.

That risk evaluation is included in Appendix F to this Conceptual Work Plan and indicates that, under existing conditions, both cancer risks and non-cancer hazards due to the retained constituents in the 0- to 1-foot and 1- to 3-foot depth increments are below the benchmarks specified in the SOW. Therefore, no remediation for non-PCB Appendix IX+3 constituents is necessary at this area.

4.15 Evaluations for Parcel I9-9-34 (Bank Portion of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-34 is a commercial property bordered to the northeast by RA-1, to the southeast by East Street, to the west by Parcel I9-9-33, and to the north by Silver Lake. The boundary of the Silver Lake RAA does not extend beyond the bank portion of Parcel I9-9-34. The owner of this parcel has not yet advised GE whether he is willing to execute an ERE. Therefore, GE has prepared this Conceptual Work Plan to ensure that this area would meet the applicable Performance Standards either for a property with an ERE or for a property with a Conditional Solution. If an ERE is executed, the applicable Performance Standards for the bank soils would require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment. Under a Conditional Solution, the applicable Performance Standards for the bank soils would require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 0- to 3-foot depth increment.

4.15.1 PCB Evaluation – Existing Conditions

The evaluation process for the bank portion of Parcel I9-9-34 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.15 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards, under both ERE and Conditional Solution scenarios:

ERE Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-61	13.27	10
1 – 3'	D-63	40.93	15

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-61	13.27	10
0 – 3'	D-62	31.71	10

As indicated in the preceding table, the existing average PCB concentrations exceed the corresponding Performance Standards. As a result, remediation is required to achieve those standards.

4.15.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-34 are presented in Table E-87. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.15.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-88 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.15.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-89 through E-91 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, average concentrations of the other retained constituents are less than the applicable Method 1 soil standards. Accordingly, the non-PCB Performance Standards are achieved under existing conditions and no remediation for such constituents is necessary at this area. It should be noted, however, that remediation to address certain non-PCB constituents at the adjacent RA-5, specifically soil removal in the vicinity of sample location I9-9-34-SB-1 (located on RA-5), is proposed, and a segment of this soil removal will take place within Parcel I9-9-34.

4.15.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at Parcel I9-9-34 to the limits shown on Figure 4-1. This remediation will involve the excavation of approximately 210 cubic yards of soil regardless of obtaining an ERE or implementing a Conditional Solution. Performance of these

activities will result in the achievement of the applicable PCB Performance Standards for this area, as demonstrated in Section 4.15.4.

4.15.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-1 will result in the achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following tables.

ERE Alternative

Depth Increment	Appendix D Table Reference	Post-Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-64	3.65	10
1 – 3'	D-66	0.84	15

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Post-Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-64	3.65	10
0 – 3'	D-65	1.77	10

4.16 Evaluations for Parcel I9-9-201 (Bank and Non-Bank Portions of Commercial Property)

As shown on Figure 1-2, Parcel I9-9-201 is a commercial property bordered to the east by Parcels I9-9-15 and I9-9-17, to the south by Parcel I9-9-103 and Fenn Street, to the west by I9-9-103, I9-9-9, and I9-9-10, and to the north by Silver Lake. The boundary of the Silver Lake RAA extends beyond the bank portion of this property to also include a small portion of non-bank area. The bank and non-bank portions of Parcel I9-9-201 are evaluated separately below. The owner of this parcel has not advised GE to date whether he is willing to execute an ERE on this property. Therefore, GE has prepared this Conceptual Work Plan to ensure that this area would meet the applicable Performance Standards either for a property with an ERE or for a property with a Conditional Solution.

For the bank soils, the applicable Performance Standards require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment (if an ERE is obtained) or 10 ppm in the 0- to 3-foot depth increment (if an ERE is not obtained). For the non-bank soils, if an ERE is obtained, GE must remove/replace soils as necessary to achieve spatial average PCB concentrations of 25 ppm in the top foot and 200 ppm in the 1- to 6-foot depth increment, and must install an engineered barrier if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment exceeds 100 ppm. Under a Conditional Solution, the applicable Performance Standards for the non-bank soils would be the same, with the additional requirement to achieve a spatial average PCB concentration of 25 ppm in the 0- to 3-foot depth increment. Since the non-bank portion of this area is less than 0.5 acre in size, the PCB NTE concentration for commercial properties does not apply.

4.16.1 Parcel I9-9-201 (Bank Soils)

4.16.1.1 PCB Evaluation – Existing Conditions

The evaluation process for the bank portion of Parcel I9-9-201 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.16 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards, under either an ERE or a Conditional Solution scenario:

ERE Alternative

Depth Increment	Appendix D Table Reference	Post-Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-67	0.31	10
1 – 3'	D-68A	0.63	15

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-67	0.31	10
0 – 3'	D-68	0.52	10

As indicated in the preceding tables, the existing average PCB concentrations in all depth increments are below the applicable Performance Standards. As a result, no remediation is required to achieve those standards.

4.16.1.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-9-201 are presented in Table E-92. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.16.1.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-93 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Phenanthrene
- Arsenic
- Lead

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.16.1.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-94, E-95, and E-95A present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, the average existing concentration of lead in the 0- to 1-foot depth increment and the concentrations of certain PAHs in the 0- to 3-foot and 1- to 3-foot depth increments are (or were prior to delineation sampling) greater than the applicable Method 1 soil standards. In this situation, GE is proposing to remove soil in the vicinity of sample location I9-9-11-SB-2 due to elevated levels of certain PAHs.

4.16.1.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at the bank portion of Parcel I9-9-201 to the limits shown on Figure 4-3. This remediation will involve the excavation of approximately 40 cubic yards of soil. Performance of these activities will result in lower spatial average PCB concentrations and achievement of the applicable non-PCB Performance Standards, as demonstrated in Section 4.16.1.4 and 4.16.1.5, respectively.

4.16.1.4 PCB Evaluation – Post-Remediation Conditions

As shown on Figure 4-3, the proposed remediation will remove soil in the top three feet around sample location I9-9-11-SB-2. While existing concentrations of PCBs prior to this remediation already achieve the PCB Performance Standards as noted in Section 4.16.1.1, this remediation will further lower the PCB concentrations for the relevant depth increments at the bank portion of this parcel.

4.16.1.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

As noted above GE will remove the soils associated with the 1- to 3- foot depth increment at location I9-9-11-SB-2 due to elevated PAH levels. Tables E-96 and E-96A present the post-remediation evaluation of non-PCB constituents in the 0- to 3-foot and 1- to 3-foot depth increments. Although the proposed remediation will also remove soil from the top foot, Table E-94, which presents the evaluation of non-PCB constituents in the 0- to 1-foot depth increment under existing conditions, has been used to evaluate the post-remediation conditions to be conservative. As shown in those tables, the post-remediation average concentrations in the 0- to 3-foot and 1- to 3-foot depth increments are below the applicable standards, but the lead concentration in the 0- to 1-foot depth increment will slightly exceed the applicable Method 1 standard. Accordingly, an area-specific post-remediation risk evaluation has been performed for this bank area.

That risk evaluation is included in Appendix F to this Conceptual Work Plan and indicates that, under post-remediation conditions, both cancer risks and non-cancer hazards due to the retained constituents in the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments are below the benchmarks specified in the SOW, and the average lead concentrations in all three depth increments are below the applicable RBC. As a result, the remediation will achieve the applicable Performance Standards for non-PCB Appendix IX+3 constituents.

4.16.2 Parcel I9-9-201 (Non-Bank Soils)

4.16.2.1 PCB Evaluation – Existing Conditions

The evaluation process for the non-bank portion of Parcel I9-9-201 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the depth increments specified in Section 4.16 above. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards, under both ERE and Conditional Solution scenarios:

ERE Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-71	0.90	25
1 – 6'	D-73	1.90	200
0 – 15'	D-74	2.76	100

Conditional Solution Alternative

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-71	0.90	25
0 – 3'	D-72	1.51	25
1 – 6'	D-73	1.90	200
0 – 15'	D-74	2.76	100

As indicated in the preceding tables, the existing average PCB concentrations are below the applicable Performance Standards under an ERE or Conditional Solution scenario. As a result, no remediation is required to achieve those standards.

4.16.2.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the non-bank portion of Parcel I9-9-201 are presented in Table E-97. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.16.2.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-98 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Phenanthrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.16.2.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRGs.

Tables E-99 and E-102 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, 1- to 6-foot, and 0- to 15-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRGs. However, certain PAH

compounds had average concentrations greater than the applicable Method 1 soil standards in the 1- to 6-foot depth increment prior to delineation sampling. In this situation, GE is proposing to remove soil in the vicinity of sample location I9-9-11-SB-7 due to elevated levels of PAHs.

4.16.2.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at the non-bank portion of Parcel I9-9-201 to the limits shown on Figure 4-3. This remediation will involve the excavation of approximately 245 cubic yards of soil. Performance of these activities will result in lower spatial average PCB concentrations and achievement of the non-PCB Performance Standards, as demonstrated in Section 4.16.2.4 and 4.16.2.5, respectively.

4.16.2.4 PCB Evaluation – Post-Remediation Conditions

As shown on Figure 4-3, the proposed remediation will remove soil in the top six feet in western portion of this non-bank area to address non-PCB constituents. While existing concentrations of PCBs prior to this remediation already achieve the specified PCB Performance Standards noted in Section 4.16.2.1, this remediation will further lower the PCB concentrations for the relevant depth increments at the non-bank portion of this parcel.

4.16.2.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove soils associated with the 3- to 6- foot depth increment at I9-9-11-SB-7 due to elevated PAH levels. Tables E-103 and E-104 present the post-remediation evaluations of non-PCB constituents in the 1- to 6-foot and 0- to 15-foot depth increments. Although the proposed remediation will also remove soil from the 0- to 1-foot and 0- to 3-foot depth increments, Tables E-99 and E-100, which present the evaluation of non-PCB constituents in the 0- to 1-foot and 0- to 3-foot depth increments under existing conditions, have been used to evaluate the post-remediation conditions to be conservative. As shown in these tables, post-remediation concentrations of all retained constituents will be below the applicable PRGs or Method 1 soil standards. Thus, the remediation proposed for the non-bank portion of Parcel I9-9-201 will achieve the applicable Performance Standards for this area.

4.17 Evaluations for Parcel I9-10-8 (Residential Bank and Non-Bank Areas)

As shown on Figure 1-2, Parcel I9-10-8 is a residential property bordered to the east by Silver Lake, to the south by Parcel I9-10-7, to the west by Parcels I9-10-10, I9-10-11, I9-10-12, I9-10-13, I9-10-14, and I9-10-15, and to the north by Parcel I9-10-9. The boundary of

the Silver Lake RAA extends beyond the bank portion of this property to also include the entire non-bank portion of Parcel I9-10-8. The bank and non-bank portions of Parcel I9-10-8 are evaluated separately below. The applicable Performance Standards for both areas require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above). Since the non-bank area is greater than 0.25 acre in size, the maximum PCB concentration in the top foot of soil must be less than the NTE criterion of 10 ppm PCBs applicable to residential areas.

4.17.1 Parcel I9-10-8 (Bank Soils)

4.17.1.1 PCB Evaluation – Existing Conditions

The evaluation process for this area involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the depth increments specified in Section 4.17. In this case, as shown in Table 3, GE is proposing an X-depth of 9 feet, and, therefore, the evaluation was conducted for the 0- to 1-foot and 1- to 9-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-79	35.23	2
1 – 9'	D-80	14.78	2

As indicated in the preceding table, the existing average PCB concentrations exceed the Performance Standard for the 0- to 1-foot and 1- to 9-foot depth increments. As a result, remediation is required to achieve that standard.

4.17.1.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the bank portion of Parcel I9-10-8 are presented in Table E-105. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.17.1.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-106 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Lead
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.17.1.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-107 and E-108 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 9-foot depth increments. As indicated in those tables, the maximum dioxin/furan TEQ concentration in the 0- to 1-foot depth increment exceeds the applicable PRG. In addition, existing concentrations of lead exceed the applicable Method 1 soil standards in both the 0- to 1 and 1- to 9-foot depth increments. In this situation, GE is proposing to remove soil in the vicinity of sample location I9-10-8-SB-9 due to elevated levels of dioxin/furan TEQs and lead, and soil in the vicinity of sample locations SLB-1BB and I9-10-8-SB-16-E due to elevated levels of lead.

4.17.1.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at the bank portion of Parcel I9-10-8 to the limits shown on Figure 4-4. This remediation will involve the excavation of approximately 705 cubic yards of soil. Performance of these activities will result in the achievement of the PCB and Appendix IX+3 Performance Standards for this area, as demonstrated in Sections 4.17.1.4 and 4.17.1.5, respectively.

4.17.1.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-4 will result in the achievement of the PCB Performance Standard for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-81	0.76	2
1 – 9'	D-82	1.53	2

4.17.1.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove soils associated with the 0- to 1-foot depth increment at sample location I9-10-8-SB-9 due to dioxin/furan TEQs and lead, and soils associated with the 1- to 3-foot depth increment at sample locations SLB-1BB and I9-10-8-SB-16-E due to lead. Tables E-109 and E-110 present the post-remediation evaluations of non-PCB constituents in the 0- to 1 foot and 1- to 9-foot depth increments. As shown in those tables, post-remediation concentrations of dioxin/furan TEQs will be below the applicable PRG, and the post-remediation concentrations of all other retained non-PCB constituents will be below applicable MCP Method 1 soil standards. Accordingly, the proposed remediation for the bank portion of Parcel I9-10-8 will achieve the applicable Performance Standards for this area.

4.17.2 Parcel I9-10-8 (Non-Bank Soils)

4.17.2.1 PCB Evaluation – Existing Conditions

The first step in the evaluation process for the non-bank portion of Parcel I9-10-8 involved the identification of all soil sample locations in the top foot of unpaved portions with PCB concentrations greater than 10 ppm, the applicable NTE level. This review revealed that the surface sample from location R83B425 has PCB concentrations in excess of the NTE level. Although this location is located in the bank portion of Parcel I9-10-8, the associated polygon for this location extends into the non-bank portion of the property. As a result, soil removal activities are necessary for the 0- to 1-foot depth increment to address this exceedance.

The next step in the PCB evaluation process for the non-bank soils of Parcel I9-10-8 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.17 above. In this case, as shown in Table 3, GE is proposing an X-depth of 11 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 11-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standard:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-83	1.34	2
1 – 11'	D-84	5.86	2

As indicated in the preceding table, the existing average PCB concentration exceeds the corresponding Performance Standard for the 1- to 11-foot depth increment. As a result, remediation is required to achieve that standard.

4.17.2.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the non-bank portion of Parcel I9-10-8 are presented in Table E-111. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.17.2.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-112 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Lead
- Mercury
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.17.2.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-113 and E-114 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 11-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, existing concentrations of mercury are greater than the applicable Method 1 soil standards in the 0- to 1-foot and 1- to 11-foot depth increments. Therefore, as discussed below, GE is proposing to remove soil in the vicinity of sample location I9-10-8-SB-19 due to elevated levels of mercury.

4.17.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at the non-bank portion of Parcel I9-10-8 to the limits shown on Figure 4-4. This remediation will involve the excavation of approximately 320 cubic yards of soil. Performance of these activities will result in the achievement of the PCB and Appendix IX+3 Performance Standards, as demonstrated in Sections 4.17.2.4 and 4.17.2.5, respectively.

4.17.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-4 will result in removal of the identified sample locations with exceedances of the NTE level and in achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-85	0.74	2
1 – 11'	D-86	0.96	2

4.17.4.1 Appendix IX+3 Evaluation – Post-Remediation Conditions

As noted above, GE will remove soils associated with the 0- to 1-foot and 1- to 3-foot depth increments at sample location I9-10-8-SB-19 due to elevated mercury levels. Tables E-115 and E-116 present the post-remediation evaluations of non-PCB constituents in the 0- to 1 foot and 1- to 11-foot depth increments. As shown in those tables, post-remediation concentrations of all retained non-PCB constituents will be below the applicable PRG or Method 1 soil standards. Accordingly, the proposed remediation proposed for the non-bank portion of Parcel I9-10-8 will achieve the applicable Performance Standards for this area.

4.18 Evaluations for Parcel I9-10-11 (Residential Non-Bank Area)

As shown on Figure 1-2, Parcel I9-10-11 is a residential property bordered to the east by Parcel I9-10-8, to the south by Parcel I9-10-12, to the west by Fourth Street, and to the north by Parcel I9-10-10. This property is not immediately adjacent to the lake, and the boundary of the Silver Lake RAA includes only a small (non-bank) portion of this property. The applicable Performance Standards for this area require the removal/replacement of

soils as necessary to achieve spatial average PCB concentrations of 2 ppm in the top foot and in the 1- to X-foot depth increment (with X determined as described above). Since this area is less than 0.25 acre in size, the PCB NTE concentration for residential properties does not apply.

4.18.1 PCB Evaluation – Existing Conditions

The PCB evaluation process for the non-bank soils of Parcel I9-10-11 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to determine an X-depth and calculate average PCB concentrations for each of the depth increments specified in Section 4.18 above. In this case, as shown in Table 3, GE is proposing an X-depth of 9 feet, and therefore the evaluation was conducted for the 0- to 1-foot and 1- to 9-foot depth increments. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-87	1.67	2
1 – 9'	D-88	6.60	2

As indicated in the preceding table, the existing average PCB concentration exceeds the Performance Standard for the 1- to 9-foot depth increment. As a result, remediation is required to achieve that standard.

4.18.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for the non-bank portion of Parcel I9-10-11 are presented in Table E-117. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.18.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-118 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)pyrene
- Arsenic
- Lead
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.18.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-119 and E-120 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 9-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, the existing average concentration of lead in the 0- to 1-foot depth increment is greater than the applicable Method 1 soil standard and the existing average concentrations of arsenic and lead in the 1- to 9-foot depth increment exceeded the Method 1 soil standards prior to delineation sampling. In this situation, GE is proposing to remove soil in the vicinity of sample locations I9-10-8-SB-16 and I9-10-8-16-S (both located within Parcel I9-10-11) due to elevated levels of arsenic and lead.

4.18.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at the portion of Parcel I9-10-11 within the RAA to the limits shown on Figure 4-4. This remediation will involve the excavation of approximately 150 cubic yards of soil. Performance of these activities will result in the achievement of the applicable PCB and Appendix IX+3 Performance Standards, as demonstrated in Sections 4.18.4 and 4.18.5, respectively.

4.18.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-4 will result in the achievement of the PCB Performance Standard for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-89	0.22	2
1 – 9'	D-90	0.78	2

4.18.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

As shown on Figure 4-4, GE will remove soils associated with sample location I9-10-8-SB-16 to a depth of 3 feet and soils associated with sample location I9-10-8-SB-16-S to a depth of 5 feet. Tables E-121 through E-122 present the post-remediation evaluations of non-PCB constituents in the 0- to 1-foot and 1- to 9-foot depth increments. As shown in these tables, post-remediation concentrations of all retained non-PCB constituents will be below the applicable PRG or Method 1 soil standards. Accordingly, the proposed remediation for the portion of Parcel I9-10-11 within the RAA will achieve the applicable Performance Standards for this area.

4.19 Evaluation for Recreational Area RA-1 (including Parcel I9-10-9)

As shown on Figure 1-2, Recreational Area RA-1 (which includes Parcel I9-10-9) is bordered to the northeast by RA-2, to the southeast by Silver Lake, to the southwest by Parcels I9-10-8 and I9-10-10, and to the northwest by Fourth Street. This area consists entirely of lake bank. As discussed in Section 3.2.2, GE has assumed, for purposes of this Conceptual Work Plan, that a Conditional Solution will be implemented for any privately owned portions of this area, and that an ERE will executed for any City-owned road easements. In these circumstances, GE has prepared this Conceptual Work Plan to ensure that this area would meet the applicable Performance Standards either for an area with an ERE or for an area with a Conditional Solution. The applicable Performance Standards for this bank area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot, 15 ppm in the 1- to 3-foot depth increment (for areas subject to an ERE), and 10 ppm in the 0- to 3-foot depth increment (for areas subject to a Conditional Solution).

4.19.1 PCB Evaluation – Existing Conditions

The evaluation process for RA-1 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.19 above. The following tables present the existing average PCB concentrations that were calculated

for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-91	1.32	10
0 – 3'	D-91A	32.00	10
1 – 3'	D-92	47.34	15

As indicated in the preceding table, the existing average PCB concentrations exceed the applicable Performance Standards for the 0- to 3-foot and 1- to 3-foot depth increments. As a result, remediation is required to achieve those standards.

4.19.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for RA-1 are presented in Table E-123. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.19.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-124 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.19.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-125, E-125A, and E-126 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment. Accordingly, the Performance Standards for non-PCB constituents are already achieved at RA-1, and no remediation for such constituents is necessary at this area.

4.19.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at RA-1 to the limits shown on Figure 4-5. This remediation will involve the excavation of approximately 225 cubic yards of soil. Performance of these activities will result in the achievement of the PCB Performance Standards for this area, as demonstrated in Section 4.19.4.

4.19.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-5 will result in the achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post-Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-93	0.45	10
0 – 3'	D-93A	2.68	10
1 – 3'	D-94	3.79	15

4.20 Evaluations for Recreational Area RA-2

As shown on Figure 1-2, Recreational Area RA-2 is bordered to the east by RA-3, to the south by Silver Lake, to the west by RA-1, and to the north by Silver Lake Boulevard. This area consists entirely of lake bank. As discussed in Section 3.2.2, GE has assumed, for purposes of this Conceptual Work Plan, that a Conditional Solution will be implemented for any privately owned portions of this area, and that an ERE will executed for any City-owned road easements. In these circumstances, GE has prepared this Conceptual Work Plan to ensure that this area would meet the applicable Performance Standards either for an area with an ERE or for an area with a Conditional Solution. The applicable Performance Standards for this bank area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot, 15 ppm in the 1- to 3-foot depth increment (for areas subject to an ERE), and 10 ppm in the 0- to 3-foot depth increment (for areas subject to a Conditional Solution).

4.20.1 PCB Evaluation – Existing Conditions

The evaluation process for RA-2 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.20 above. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-95	0.44	10
0 – 3'	D-95A	2.52	10
1 – 3'	D-96	3.55	15

As indicated in the preceding table, the existing average PCB concentrations are below the Performance Standards. As a result, no remediation is required to achieve those standards.

4.20.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for RA-2 are presented in Table E-127. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.20.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-128 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.20.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-129, E-129A, and E-130 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. In addition, the average concentrations of the other retained constituents are less than the applicable Method 1 soil standards for each applicable depth increment. Accordingly, the Performance Standards for non-PCB constituents are already achieved at RA-2, and no remediation for such constituents is necessary at this area.

4.21 Evaluations for Recreational Area RA-3

As shown on Figure 1-2, Recreational Area RA-3 is bordered to the southeast by RA-4, to the south by Silver Lake, to the southwest by RA-2, and to the north by Silver Lake Boulevard. This area consists entirely of lake bank. As discussed in Section 3.2.2, GE has assumed, for purposes of this Conceptual Work Plan, that an ERE will be executed for any GE-owned portions of this area and any City-owned road easements and that a Conditional

Solution will be implemented for any portions of this area owned by a private party other than GE. In these circumstances, GE has prepared this Conceptual Work Plan to ensure that this area would meet the applicable Performance Standards either for an area with an ERE or for an area with a Conditional Solution. The applicable Performance Standards for this bank area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot, 15 ppm in the 1- to 3-foot depth increment (for areas subject to an ERE), and 10 ppm in the 0- to 3-foot depth increment (for areas subject to a Conditional Solution).

4.21.1 PCB Evaluation – Existing Conditions

The evaluation process for RA-3 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.21 above. The following table presents the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-99	34.88	10
0 – 3'	D-99A	162.11	10
1 – 3'	D-100	225.73	15

As indicated in the preceding table, the existing average PCB concentrations exceed the applicable Performance Standards. As a result, remediation is required to achieve those standards.

4.21.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for RA-3 are presented in Table E-131. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.21.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituents (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-132 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in

that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Acetophenone
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Chrysene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Naphthalene
- Phenanthrene
- Arsenic
- Lead
- Sulfide

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.21.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-133, E-133A, and E-134 present the evaluations of retained constituents for the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments. As indicated in those tables, the maximum dioxin/furan TEQ concentrations in the 0- to 3-foot and 1- to 3-foot depth increments exceed the applicable PRG. In addition, existing average concentrations of certain PAHs in all depth increments and lead in the 1- to 3-foot depth increment exceed the applicable Method 1 soil standards. In this situation, GE is proposing to remove soil in the vicinity of sample location RA-3-SB-9 due to elevated levels of dioxins/furans and in the vicinity of the following sample locations due to elevated levels of PAHs: SLB-9BB, SLB-9TB, RA-3-SB-1, RA-3-SB-15, RA-3-SB-15-E, RA-3-SB-15-EE (located within RA-4), RA-3-SB-15-W, and RA-3-SB-15-WW.

4.21.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at RA-3 to the limits shown on Figure 4-5. This remediation will involve the excavation of approximately 1,795 cubic yards of soil. Performance of these activities will result in the achievement of the applicable PCB and Appendix IX+3 Performance Standards, as demonstrated in Section 4.21.4 and 4.21.5, respectively.

4.21.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-5 will result in the achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following table.

Depth Increment	Appendix D Table Reference	Post-Remediation Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-101	5.04	10
0 – 3'	D-101A	9.52	10
1 – 3'	D-102	11.76	15

4.21.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

As shown on Figure 4-5, GE will perform 3-foot removals in two portions of RA-3 to address elevated levels of certain PAHs (or, one case, dioxin/furan TEQs). Tables E-135, E-135A, and E-136 present the post-remediation evaluations of non-PCB constituents in the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments. As shown in those tables, post-remediation conditions in all depth increments will achieve the applicable dioxin/furan PRG or Method 1 soil standards in all relevant depth increments, except that the average post-remediation concentration of benzo(a)pyrene in the 0- to 1-foot depth increment will slightly exceed the applicable Method 1 soil standard (and there is no Method 1 soil standard for acetophenone). In this situation, an area-specific post-removal risk evaluation has been performed for this area.

That risk evaluation is included in Appendix F to this Conceptual Work Plan and indicates that, under post-remediation conditions, cancer risks and non-cancer hazards due to the retained constituents in the 0- to 1-foot, 0- to 3-foot, and 1- to 3-foot depth increments at RA-3 do not exceed the benchmarks specified in the SOW, and the average lead concentrations in all depth increments are below the applicable RBC. Thus, the

remediation proposed for RA-3 will achieve the applicable Performance Standards for non-PCB constituents at this area.

4.22 Evaluations for Recreational Area RA-4

As shown on Figure 1-2, Recreational Area RA-4 is bordered to the east by Silver Lake Boulevard, to the south by RA-5, to the west by Silver Lake, and to the north by RA-3. This area consists entirely of lake bank. As discussed in Section 3.2.2, since this area appears to consist of GE-owned land and/or a roadway easement, GE has assumed, for purposes of this Conceptual Work Plan, that EREs will be executed for this area. As such, the applicable Performance Standards for this bank area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment.

4.22.1 PCB Evaluation – Existing Conditions

The evaluation process for RA-4 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.22 above. Soil in the top three feet around sample location RA-4-SB-8 was previously removed in connection with implementation of a pilot study sediment cap constructed in October/November 2006 over a portion of Silver Lake adjacent to RA-4. The following table presents the existing average PCB concentrations that were calculated for this area (after taking into account that prior soil removal around location RA-4-SB-8, but not additional soil removal that was carried out as part of that project to allow construction of the sediment cap), together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-103	8.96	10
1 – 3'	D-104	6.07	15

As indicated in the preceding tables, the current average PCB concentrations are below the applicable Performance Standards. As a result, no further remediation is required to achieve those standards.

4.22.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for RA-4 are presented in Table E-137. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.22.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituent (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-138 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene
- Arsenic
- Sulfide
- Thallium

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.22.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-139 and E-140 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, all dioxin/furan TEQ concentrations are below the applicable PRG. However, certain PAH compounds have average concentrations greater than the applicable Method 1 soil standard in the 0- to 1-foot and 1- to 3-foot depth increments. In this situation, GE is proposing to remove soil in the vicinity of sample location RA-3-SB-15-EE due to elevated levels of PAHs.

4.22.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at RA-4 to the limits shown on Figure 4-5. This remediation will involve the excavation of approximately 395 cubic yards of soil. Performance of these activities will result in lower average PCB concentrations and achievement of the applicable non-PCB Performance Standards, as demonstrated in Sections 4.22.4 and 4.22.5, respectively.

4.22.4 PCB Evaluation – Post-Remediation Conditions

As shown on Figure 4-5, the proposed remediation will remove soil in the northern portion of RA-4 to address non-PCB constituents. While existing concentrations of PCBs prior to this remediation already achieved the applicable PCB Performance Standards as noted in Section 4.22.1, this remediation will further lower the PCB concentrations for the relevant depth increments at this area.

4.22.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove soils associated with the 0- to 1-foot and 1- to 3-foot depth increments at sample location RA-3-SB-15-EE at RA-4 due to elevated PAH levels. Tables E-141 and E-142 present the post-remediation evaluations of non-PCB constituents in the 0- to 1-foot and 1- to 3-foot depth increments. As shown in these tables, the post-remediation concentrations of all retained constituents in both depth increments will be below the applicable PRG or Method 1 soil standards. Thus, the proposed remediation for RA-4 will achieve the applicable Performance Standards for this area.

4.23 Evaluations for Recreational Area RA-5

As shown on Figure 1-2, Recreational Area RA-5 is bordered to the east and southeast by Silver Lake Boulevard and East Street, respectively, to the southwest by Parcel I9-9-33, to the northwest by Silver Lake, and to the north by RA-4. This area consist entirely of lake bank. As discussed in Section 3.2.2, since this area appears to consist of GE-owned land and/or a roadway easement, GE has assumed, for purposes of this Conceptual Work Plan, that EREs will be executed for this area. As such, the applicable Performance Standards for this bank area require the removal/replacement of soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment.

4.23.1 PCB Evaluation – Existing Conditions

The evaluation process for RA-5 involved the use of available PCB soils data and the spatial averaging procedures discussed in Section 3 to calculate average PCB concentrations for each of the applicable depth increments specified in Section 4.23 above. The following tables present the existing average PCB concentrations that were calculated for this area, together with references to the corresponding tables in Appendix D and the applicable Performance Standards:

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-107	168.34	10
1 – 3'	D-108	9.09	15

As indicated in the preceding table, the existing average PCB concentrations in the top foot exceed the applicable Performance Standard. As a result, remediation is required to achieve that standard.

4.23.2 Appendix IX+3 Evaluation – Existing Conditions

The Appendix IX+3 data used in the evaluations for RA-5 are presented in Table E-143. These data are the basis for the Appendix IX+3 evaluations presented in this section.

4.23.2.1 Screening Evaluation

Consistent with the protocols established in the SOW and summarized in Section 3.3.3 of this Conceptual Work Plan, the maximum concentrations of all detected constituent (other than dioxins/furans) were compared to their corresponding Screening PRGs. Table E-144 identifies the detected constituents and provides a comparison of the maximum detected concentration of each of those constituents to the applicable Screening PRG. As shown in that table, the following constituents have maximum detected concentrations that exceed their corresponding Screening PRGs:

- Aniline
- Benzo(a)anthracene
- Benzo(a)pyrene
- Chrysene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene

- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Phenanthrene
- Arsenic
- Thallium

These constituents were retained for further evaluation, along with dioxin/furan TEQs.

4.23.2.2 Evaluation of Retained Constituents

For the Appendix IX+3 constituents retained for further evaluation, the next component of the Appendix IX+3 evaluation involved the comparison of average constituent concentrations (except for dioxin/furan TEQs) to the applicable MCP Method 1 soil standards and comparison of maximum dioxin/furan TEQ concentrations to the applicable EPA PRG.

Tables E-145 and E-146 present the evaluations of retained constituents for the 0- to 1-foot and 1- to 3-foot depth increments. As indicated in those tables, the maximum dioxin/furan TEQ concentration in the 0- to 1-foot depth increment exceeds the applicable PRG. In addition, certain PAHs have existing concentrations greater than the applicable Method 1 soil standards in both depth increments. In this situation, GE is proposing to remove soil in the vicinity of sample location RA-5-SB-2 due to an elevated level of dioxin/furan TEQs and in the vicinity of sample locations I9-9-34-SB-1 and I9-9-34-SB-1-NE due to elevated levels of PAHs.

4.23.3 Proposed Remediation

Based on the evaluations presented above, GE is proposing to conduct soil removal/replacement activities at RA-5 to the limits shown on Figure 4-5. This remediation will involve the excavation of approximately 580 cubic yards of soil. Performance of these activities will result in the achievement of the applicable PCB and Appendix IX+3 Performance Standards, as demonstrated in Section 4.23.4 and 4.23.5, respectively.

4.23.4 PCB Evaluation – Post-Remediation Conditions

The proposed remediation shown on Figure 4-5 will result in the achievement of the PCB Performance Standards for the relevant depth increments, as indicated in the following tables.

Depth Increment	Appendix D Table Reference	Existing Average PCB Concentration (ppm)	Performance Standard (ppm)
0 – 1'	D-109	0.38	10
1 – 3'	D-110	6.67	15

4.23.5 Appendix IX+3 Evaluation – Post-Remediation Conditions

GE will remove soils associated with the 0- to 1-foot depth increment at sample location RA-5-SB-2 due to an elevated dioxin/furan TEQ level and at I9-9-34-SB-1 due to elevated levels of certain PAHs. GE will also remove soils associated with the 1- to 3-foot depth increments at sample locations I9-9-34-SB-1 and I9-9-34-SB-1-NE due to elevated levels of certain PAHs. Tables E-147 and E-148 present the post-remediation evaluations of non-PCB constituents in the 0- to 1-foot and 1- to 3-foot depth increments. As shown in these tables, the post-remediation concentrations of dioxin/furan TEQs will be below the applicable PRG and the post-remediation of the other retained constituents will be below the applicable Method 1 soil standards, where such standards exist.

One retained constituent, aniline, does not have a Method 1 soil standard. In this case, however, GE does not believe that there is a need for delineation sampling or additional remediation for aniline at RA-5 because: (1) the average concentrations in the 0- to 1-foot depth increment (60 ppm) and 1- to 3-foot depth increment (0.76 ppm) are below the EPA Region 9 residential PRG for aniline (78 ppm); and (2) the soil in and around the 1-foot depth sample at location RA-5-SB-2, where the only elevated concentration of aniline was found, will be removed to a depth of 1 foot below ground surface to address PCBs and dioxins/furans.

For these reasons, GE has concluded that the proposed remediation for RA-5 will achieve the applicable Performance Standards for this area and that no further sampling or remediation will be required.

4.24 Overall Summary

Based on the foregoing evaluations, the soil removal limits that will be necessary to meet the PCB Performance Standards at the Silver Lake Area are shown on Figure 4-1 through 4-5. The following table presents the estimated soil removal volume calculated for each averaging area (if any):

Area	Estimated Soil Removal Volume (cy)
I9-9-1 (bank)	930
I9-9-9 (bank)	420
I9-9-9 (non-bank)	135
I9-9-17 (bank)	175
I9-9-18 (bank)	45
I9-9-19 (bank)	70
I9-9-21 and I9-9-22 (bank)	0
I9-9-21 and I9-9-22 (non-bank)	0
I9-9-23 (bank)	0
I9-9-24 (bank)	980
I9-9-25 (bank)	0
I9-9-25 (non-bank)	0
I9-9-30 (bank)	0
I9-9-30 (non-bank)	0
I9-9-31 (bank)	10
I9-9-32 (bank)	100
I9-9-33 (bank)	0
I9-9-34 (bank)	210
I9-9-201 (bank)	40
I9-9-201 (non-bank)	245
I9-10-8 (bank)	705
I9-10-8 (non-bank)	320
I9-10-11 (non-bank)	150

Area	Estimated Soil Removal Volume (cy)
Recreational Area RA-1	225
Recreational Area RA-2	45
Recreational Area RA-3	1,795
Recreational Area RA-4	395
Recreational Area RA-5	580
Total:	**7,575**

As indicated in the above table, the remediation for the Silver Lake Area will involve the excavation of a total of approximately 7,575 cubic yards of soil. As discussed above, the estimated removal limits and volumes presented above do not take account of any remediation that will be implemented to address the lake sediments, including bank soil removals to support the cap/armor layer to be placed around the lake. Such sediment-related removals along the banks may affect the overall soil removal limits and volumes presented above.

5. Preliminary Design Information and Future Design-Related Activities

5.1 General

Based on the PCB and Appendix IX+3 evaluations presented in Section 4 of this Conceptual Work Plan, and in accordance with the SOW, the remediation identified for soils adjacent to Silver Lake will consist of soil removal/replacement, as depicted on Figures 4-1 through 4-5. This section presents preliminary design information for the proposed remediation, describes conceptually the natural resource restoration/enhancement activities to be implemented on the Silver Lake banks, and discusses Applicable or Relevant and Appropriate Requirements (ARARs) for the remediation and associated actions at this RAA. In addition, this section describes future design-related activities and the anticipated contents of the Final RD/RA Work Plan.

5.2 Preliminary Design Information for Soil Remediation

In general, the remediation activities for soils adjacent to Silver Lake will be implemented in accordance with GE's *Construction Quality Assurance Plan* (CQAP), which is part of GE's *Project Operations Plan* (POP; Latest revision – March 2007). The CQAP contains several technical specifications, which will serve as the basis for the performance of the proposed remedial activities for soils adjacent to Silver Lake, with appropriate modifications and/or supplements as necessary.

With respect to soil removal/replacement, GE has conducted numerous remediation actions of similar scope and complexity (including, for example, at the four previously remediated residential properties at the Silver Lake RAA, the banks of the Upper ½-Mile Reach of the Housatonic River, and other RAAs such as Newell Street Area II and Former Oxbow Areas J and K). It is anticipated that similar excavation/construction equipment and methods will be utilized for soil remediation at the properties adjacent to Silver Lake. In addition, in this case, the bank soil removal activities will need to be coordinated with activities relating to installation of a sediment cap in the lake. Additional details relating to these soil removal activities and associated restoration will be provided in the Final RD/RA Work Plan.

The technical specifications contained in the CQAP relating to soil materials and to topsoil, seeding, and mulch will be followed in the performance of these actions, with modifications and/or supplements as needed, as will be described in the Final RD/RA Work Plan. Further, potential sources of backfill and soil cover material will be identified and characterized in accordance with GE's *Soil Cover/Backfill Characterization Plan*, which is also part of the POP.

5.3 Natural Resource Restoration/Enhancement Activities

In addition to soil remediation to meet the specified Performance Standards, the CD and SOW require implementation of a number of natural resource restoration/enhancement activities at the Silver Lake RAA. These are described in detail in Attachment I to the SOW. Several of these natural resource restoration/enhancement measures are required to be conducted within Silver Lake. Those measures will be described in GE's separate submittals relating to the Silver Lake sediments. Other natural resource restoration/enhancement measures are required to be conducted on the lake banks or near the lake. As set forth in the SOW, these required measures are as follows:

- "Following bank soil removal and slope restoration activities, GE shall plant a line of trees along the recreational portions of the eastern and northern banks (non-privately owned areas), spaced approximately 8 feet apart. GE shall plant an understory community in oblong patches approximately 10 feet wide and 20 feet long along these banks, spaced approximately 50 feet apart, with shrubs within each patch on approximate 4-foot centers."

- "In addition, as part of the response actions on the remaining banks of the lake, GE shall plant herbaceous species on those banks where response actions are conducted."

- "In addition to the vegetative enhancement activities, GE shall place engineered structures along the eastern and northern sides (non-privately owned areas) of the lake to enhance recreational use and wildlife observations. These structures shall consist of a walking path around these sides of the lake and two picnic areas on these sides of the lake."

GE will provide details regarding these natural resource restoration/enhancement measures for the lake banks in the Final RD/RA Work Plan. For the measures required to be installed in the recreational areas on the northern and eastern bank areas (which were previously believed to be in public ownership), GE will implement those measures in all areas that are in fact in public ownership or are owned by GE. In portions of these bank areas that are determined to be owned by private parties other than GE (as discussed in Section 1.2.2.2), GE will need to obtain those owners' permission for installation of the measures.

The implementation of these restoration/enhancement measures, as well as planting requirements and subsequent monitoring, inspection, and maintenance activities, will be consistent with the requirements specified in Attachment I of the SOW, with any modifications that GE proposes in the Final RD/RA Work Plan for review and approval by EPA and the Natural Resource Trustees.

5.4 Identification of ARARs

The remediation and associated activities to be conducted for Silver Lake soils will be subject to several ARARs. Attachment B to the SOW identifies the chemical-, action-, and location-specific ARARs for the Removal Actions Outside the River. The remediation and restoration activities for Silver Lake RAA soils will be subject to the following ARARs identified in Attachment B to the SOW: (a) the action-specific ARARs identified in Table 2, subsection B ("Soil Removal"), subsection E ("Bank Soil Removal at Silver Lake"), subsection G ("Natural Resource Restoration/Enhancement Activities"), and potentially subsection K ("Other"); and (b) the location-specific ARARs identified in Table 3, subsection B ("Floodplains, Wetlands, and Banks") and potentially subsection A ("Rivers, Streams, and Lakes") to the extent pertinent to the soil remediation work at this RAA. Further, to the extent that remediation activities involve the removal and on-site storage (at the GE Plant Area) of free product, intact drums, and/or other materials that will be subsequently disposed of off-site, the ARARs identified in Table 2, subsection H ("Temporary On-Site Storage of Free Product, Drums, and Equipment That Will Be Disposed of Off-Site") of Attachment B to the SOW will apply to such storage. In addition, in the unlikely event that any excavated materials would be consolidated at any of GE's On-Plant Consolidation Areas (OPCAs) (if available), such consolidation would be subject to the pertinent ARARs set forth in Table 1 of the Detailed Work Plan for OPCAs.

These ARARs will be considered and incorporated in the final design of the Removal Action for Soils Adjacent to Silver Lake.

5.5 Future Design-Related Activities

This Conceptual Work Plan has preliminarily identified soil areas and depths subject to remediation within the Silver Lake RAA. Based on this information, GE will proceed with detailed and final design activities to support the performance of these remediation actions. Specifically, as part of the final design activities, GE will develop final plans related to soil removal/replacement. It is anticipated that these final plans will take into account and be coordinated with GE's plans for installation of a sediment cap within and around the perimeter of the lake. Further, GE will prepare technical drawings and specifications for such activities and develop ancillary information related to project implementation. These activities will be conducted in the course of preparing a Final RD/RA Work Plan and are discussed further below.

5.5.1 Final Removal Limits

As part of final design activities, GE will develop the final limits for the soil removal to be performed for soils adjacent to Silver Lake. As indicated by review of the removal limits shown on Figures 4-1 though 4-5, the maximum depth of the planned excavations is 15 feet bgs. Therefore, the stability of the excavations will require additional engineering controls (e.g., benching, side-wall support) to ensure the stability of the excavation sidewalls prior to backfilling.

Note that final soil removal limits and associated excavation depths may be adjusted to address constructability issues (i.e., horizontal limits of soil removal may be squared/rounded off resulting in slightly more soil removal, and excavation depths will be converted to target elevations to facilitate the necessary excavation activities), or site- and location-specific obstacles that have not previously been identified (e.g., abandoned concrete works). Moreover, final soil removal depths and elevations will take into account the bank soil removals anticipated to be performed as part of the installation of a sediment cap with armor stone around the perimeter of the lake.

5.5.2 Technical Plans and Specifications

To address soil removal/replacement activities for soils adjacent to Silver Lake, technical plans and specifications will be developed as a component of the Final RD/RA Work Plan. These plans and specifications will define the acceptable construction materials and equipment to be used in these actions, as well as specific procedures to be used and expected performance of the Remediation Contractor. As discussed in Section 5.2, those plans and specifications will be based, to the extent relevant, on the technical specifications provided in the CQAP, with modifications and/or supplements as necessary or appropriate.

5.5.3 Implementation Planning

The plans contained in GE's POP describe the minimum requirements, general activities, protocols, and methodologies that are applicable to the Removal Actions Outside the River. While the contents of the POP provide information and details sufficient to support various aspects of the remediation and restoration actions, there are several instances where the POP requires more site-specific information. Several such items are listed below and will be incorporated in the final technical design or otherwise addressed in the Final Work Plan as appropriate:

- Contractor Health and Safety Plan;
- Contractor Contingency and Emergency Procedures Plan;
- Identification of backfill material and soil cover sources;
- Locations and scope of ambient air monitoring activities during construction activities;
- Evaluation of materials subject to disposition, in accordance with the *Waste Characterization Plan* (part of the POP);
- Identification of the specific locations, plants, and other materials for the natural resource restoration/enhancement measures to be installed on the lake banks, as well as the methods for implementation of those measures; and
- Organizations, roles, and responsibilities involved in construction quality assurance.

Additional information to be included in the Final Work Plan, as required in Section 3.4 of the SOW, is presented below in Section 5.6.

5.6 Contents of Final RD/RA Work Plan

As discussed in Section 6, following EPA approval of this Conceptual Work Plan, GE will submit a Final RD/RA Work Plan which will include a detailed description regarding design and implementation of the proposed remediation activities. That plan will also include the following information:

- Updated ownership information for the recreational areas on the northern and eastern sides of the lake;
- Updated information on the status of EREs for non-residential areas that will not be remediated to achieve residential standards;
- Final limits and depths for the soil removals as well as conversion of the removal depths to elevations;
- Detailed design of the soil removal/replacement activities, including the design-related information described in Sections 5.5.1 and 5.5.2;

- Plans for how the soil remediation activities will be coordinated with the sediment remediation activities, particularly with regard to the coordination of the bank soil removals described herein with the bank soil removals necessary to facilitate installation of the sediment cap with armor stone on the lake banks.

- Specific calculations regarding the impact of the soil remediation activities on flood storage capacity (and any flood storage compensation required);

- Discussion of specific measures to be implemented during the course of the proposed removal activities to provide sedimentation and turbidity controls associated with the lake and the Housatonic River;

- Details regarding the implementation of the natural resource restoration/enhancement measures to be conducted on the lake banks;

- Description of other implementation details concerning performance of these actions, including the items described in Section 5.5.3;

- Description, as necessary, of the procedures to be implemented to ensure attainment of the ARARs (identified in Section 5.4);

- Identification of the Removal Action team, including key personnel, roles and responsibilities, and lines of authority;

- Proposed implementation schedule;

- Any necessary updates or supplements to the CQAP;

- Post-Removal Site Control Plan or summary of anticipated Post-Removal Site Control activities following completion of the Removal Action;

- A monitoring, inspection, and maintenance plan for the natural resource restoration/enhancement measures to be conducted on the lake banks; and

- Summary of project closeout requirements.

6. Schedule

GE proposes to complete the remaining design-related activities and submit the Final RD/RA Work Plan for soils adjacent to Silver Lake within 6 months of EPA's approval of this Conceptual Work Plan. Upon EPA's approval of the Final RD/RA Work Plan, GE will initiate final design activities and begin development of a Request for Proposal (RFP) that provides the Technical Drawings and Technical Specifications for performance of the remediation and restoration activities for the soils adjacent to Silver Lake. GE will provide, in the Final RD/RA Work Plan, an anticipated schedule for selection of a Remediation Contractor and performance of the remediation work. The schedule will need to take into account and be coordinated with the schedule for implementation of the Silver Lake sediment remediation.

Tables

TABLE 1
SUMMARY OF MAY 2007 PRE-DESIGN PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
RA-3-SB-4-S	0-1	5/1/2007	ND(0.041)	0.51	0.42	0.93
	1-3	5/1/2007	ND(21)	96	30	126
RA-3-SB-5-N	0-1	5/1/2007	ND(0.036)	0.12	0.054	0.174
	1-3	5/1/2007	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]
RA-3-SB-6-S	0-1	5/1/2007	ND(450)	610	ND(450)	610
	1-3	5/1/2007	ND(180)	430	ND(180)	430
RA-3-SB-7-N	0-1	5/1/2007	ND(0.040)	0.054	0.022 J	0.076
	1-3	5/1/2007	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
RA-3-SB-8-S	0-1	5/1/2007	ND(4.4)	ND(4.4)	20	20
	1-3	5/1/2007	ND(46)	ND(46)	210	210

Notes:
1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. Field duplicate sample results are presented in brackets.

TABLE 2
SUMMARY OF MARCH/MAY 2007 PRE-DESIGN APPENDIX IX+3 SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID: / Sample Depth(Feet): / Date Collected: / Property Classification:	EPA Region 9 PRGs Residential/Commercial	I9-9-17-SB-2-S 3-5 03/14/07 Residential	I9-9-24-SB-2-SES-1 9-11 03/15/07 Residential	I9-9-24-SB-2-SES-2 9-11 03/15/07 Residential	I9-10-8-SB-16 3-5 03/14/07 Residential	I9-10-8-SB-16-E 0-1 05/01/07 Residential
Inorganics						
Aluminum	See Note 4	12,500 [13,300]	11,000	8,240	7,980	NA
Antimony	30/750	ND(4.27) J [ND(4.46) J]	84.6 J	ND(5.00) J	ND(5.30) J	NA
Arsenic	0.38/3	12.6 [12.7]	22	7.52 B	20	NA
Barium	5,200/100,000	96.5 [78.9]	149	486	235	NA
Beryllium	150/3,400	1.41 J [ND(1.12) J]	1.20 B	1.05 B	1.25 B	NA
Cadmium	37/930	ND(1.07) J [ND(1.12) J]	ND(1.64) J	ND(1.25) J	ND(1.75) J	NA
Calcium	See Note 4	15,600 J [31,900 J]	16,100	5,490	3,560 J	NA
Chromium	210/450	15.9 [13.9]	36	17	19	NA
Cobalt	3,300/29,000	11.4 [11.6]	13	7	9	NA
Copper	2,800/70,000	71.8 [49.8]	87.5 J	92.9 J	79	NA
Cyanide	11/35	NA	NA	NA	NA	NA
Iron	See Note 4	27,500 [29,400]	66,400	18,800	15,200	NA
Lead	400/1,000	198 [148]	203	875	337	680
Magnesium	See Note 4	9,690 [13,100]	1,820	2,710	1,580	NA
Manganese	See Note 4	501 [765]	737	221	683	NA
Mercury	22/560	0.271 J [0.129 J]	0	0	0.205 J	NA
Nickel	1,500/37,000	22.5 [21.3]	37	17	19	NA
Potassium	See Note 4	987 [761]	755	799	1,010	NA
Selenium	370/9,400	ND(2.14) J [ND(2.23) J]	ND(3.29) J	ND(2.50) J	ND(2.68) J	NA
Silver	370/9,400	ND(1.07) [ND(1.12)]	ND(1.64) J	ND(1.25) J	ND(1.32)	NA
Sodium	See Note 4	2,970 [2,070]	589	348	239	NA
Sulfide	350/1,200	NA	NA	NA	NA	NA
Thallium	6/150	ND(1.07) [ND(1.12)]	ND(1.64)	ND(1.25)	ND(1.32)	NA
Tin	45,000/100,000	NA	NA	NA	NA	NA
Vanadium	520/13,000	18.0 [14.9]	25	18	20	NA
Zinc	22,000/100,000	217 [163]	1,000	601	501	NA

TABLE 2
SUMMARY OF MARCH/MAY 2007 PRE-DESIGN APPENDIX IX+3 SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID: Sample Depth(Feet): Date Collected: Parameter Property Classification:	EPA Region 9 PRGs Residential/Commercial	I9-10-8-SB-16-E 1-3 05/01/07 Residential	I9-10-8-SB-16-E 3-5 05/01/07 Residential	I9-10-8-SB-16-S 3-5 03/14/07 Residential	I9-10-8-SB-16-S 5-7 03/14/07 Residential	I9-10-8-SB-16-SS 3-5 03/14/07 Residential	I9-10-11-SB-16-NW 0-1 03/15/07 Residential
Inorganics							
Aluminum	See Note 4	NA	NA	15,900	NA	NA	11,500
Antimony	30/750	NA	NA	13.3 J	NA	NA	ND(4.55) J
Arsenic	0.38/3	NA	NA	28	NA	NA	7.26 B
Barium	5,200/100,000	NA	NA	635	NA	NA	74
Beryllium	150/3,400	NA	NA	2.57 J	NA	NA	0.0432 B
Cadmium	37/930	NA	NA	2.81 J	NA	NA	ND(1.14) J
Calcium	See Note 4	NA	NA	20,300 J	NA	NA	3,630
Chromium	210/450	NA	NA	53	NA	NA	24
Cobalt	3,300/29,000	NA	NA	46	NA	NA	9
Copper	2,800/70,000	NA	NA	265	NA	NA	32.5 J
Cyanide	11/35	NA	NA	NA	NA	NA	NA
Iron	See Note 4	NA	NA	68,700	NA	NA	23,300
Lead	400/1,000	762	219	2,270	100	240	108
Magnesium	See Note 4	NA	NA	10,300	NA	NA	4,980
Manganese	See Note 4	NA	NA	1,800	NA	NA	412
Mercury	22/560	NA	NA	0.557 J	NA	NA	0
Nickel	1,500/37,000	NA	NA	49	NA	NA	16
Potassium	See Note 4	NA	NA	1,170	NA	NA	512
Selenium	370/9,400	NA	NA	ND(2.93) J	NA	NA	ND(2.28) J
Silver	370/9,400	NA	NA	ND(1.47)	NA	NA	ND(1.14) J
Sodium	See Note 4	NA	NA	252	NA	NA	36
Sulfide	350/1,200	NA	NA	NA	NA	NA	NA
Thallium	6/150	NA	NA	ND(1.47)	NA	NA	ND(1.14)
Tin	45,000/100,000	NA	NA	NA	NA	NA	NA
Vanadium	520/13,000	NA	NA	29	NA	NA	15
Zinc	22,000/100,000	NA	NA	1,410	NA	NA	148

TABLE 2
SUMMARY OF MARCH/MAY 2007 PRE-DESIGN APPENDIX IX+3 SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID: / Sample Depth(Feet): / Date Collected: / Property Classification:	EPA Region 9 PRGs Residential/Commercial	I9-10-11-SB-16-NW 1-3 03/15/07 Residential	I9-10-11-SB-16-NW 3-5 03/15/07 Residential	I9-10-11-SB-16-NW 5-7 03/15/07 Residential	I9-10-11-SB-16-SW 0-1 03/15/07 Residential	I9-10-11-SB-16-SW 1-3 03/15/07 Residential
Inorganics						
Aluminum	See Note 4	16,500	NA	NA	12,000 [10,300]	14,600
Antimony	30/750	ND(4.43) J	NA	NA	ND(4.57) J [ND(4.59) J]	ND(4.58) J
Arsenic	0.38/3	26	NA	NA	4.99 B [5.32 B]	18
Barium	5,200/100,000	140	NA	NA	35.3 [35.0]	134
Beryllium	150/3,400	0.0421 B	NA	NA	0.465 B [0.271 B]	0.911 B
Cadmium	37/930	ND(1.11) J	NA	NA	ND(1.14) J [ND(1.15) J]	ND(1.15) J
Calcium	See Note 4	6,120	NA	NA	70,700 [101,000]	11,700
Chromium	210/450	22	NA	NA	12.1 [9.29]	18
Cobalt	3,300/29,000	14	NA	NA	8.97 [8.69]	12
Copper	2,800/70,000	199 J	NA	NA	19.2 J [17.7 J]	96.2 J
Cyanide	11/35	NA	NA	NA	NA	NA
Iron	See Note 4	39,300	NA	NA	29,200 [24,800]	31,700
Lead	400/1,000	330	68	53	27.7 [27.2]	309
Magnesium	See Note 4	4,580	NA	NA	47,700 [62,100]	9,550
Manganese	See Note 4	1,200	NA	NA	596 [649]	796
Mercury	22/560	0	NA	NA	0.0444 [0.0471]	0
Nickel	1,500/37,000	24	NA	NA	17.7 [15.0]	22
Potassium	See Note 4	797	NA	NA	871 [795]	541
Selenium	370/9,400	ND(2.21) J	NA	NA	ND(2.29) J [ND(2.29) J]	ND(2.29) J
Silver	370/9,400	ND(1.11) J	NA	NA	ND(1.14) J [ND(1.15) J]	ND(1.15) J
Sodium	See Note 4	165	NA	NA	45.4 [47.4]	74
Sulfide	350/1,200	NA	NA	NA	NA	NA
Thallium	6/150	1	NA	NA	ND(1.14) [ND(1.15)]	ND(1.15)
Tin	45,000/100,000	NA	NA	NA	NA	NA
Vanadium	520/13,000	22	NA	NA	12.0 [10.9]	19
Zinc	22,000/100,000	325	NA	NA	77.0 [78.7]	267

TABLE 2
SUMMARY OF MARCH/MAY 2007 PRE-DESIGN APPENDIX IX+3 SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID: / Sample Depth(Feet): / Date Collected: / Property Classification:	EPA Region 9 PRGs Residential/Commercial	I9-10-11-SB-16-SW 3-5 03/15/07 Residential	RA-3-SB-3 1-3 05/04/07 Recreational	RA-3-SB-6-S 0-1 05/01/07 Recreational	RA-3-SB-8-S 1-3 05/01/07 Recreational
Inorganics					
Aluminum	See Note 4	NA	NA	NA	NA
Antimony	30/750	NA	NA	NA	NA
Arsenic	0.38/3	NA	NA	NA	NA
Barium	5,200/100,000	NA	NA	NA	NA
Beryllium	150/3,400	NA	NA	NA	NA
Cadmium	37/930	NA	NA	NA	NA
Calcium	See Note 4	NA	NA	NA	NA
Chromium	210/450	NA	NA	NA	NA
Cobalt	3,300/29,000	NA	NA	NA	NA
Copper	2,800/70,000	NA	NA	NA	NA
Cyanide	11/35	NA	NA	NA	NA
Iron	See Note 4	NA	NA	NA	NA
Lead	400/1,000	549	412	401	1,050
Magnesium	See Note 4	NA	NA	NA	NA
Manganese	See Note 4	NA	NA	NA	NA
Mercury	22/560	NA	NA	NA	NA
Nickel	1,500/37,000	NA	NA	NA	NA
Potassium	See Note 4	NA	NA	NA	NA
Selenium	370/9,400	NA	NA	NA	NA
Silver	370/9,400	NA	NA	NA	NA
Sodium	See Note 4	NA	NA	NA	NA
Sulfide	350/1,200	NA	NA	NA	NA
Thallium	6/150	NA	NA	NA	NA
Tin	45,000/100,000	NA	NA	NA	NA
Vanadium	520/13,000	NA	NA	NA	NA
Zinc	22,000/100,000	NA	NA	NA	NA

Notes:
1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of metals.
2. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
3. Field duplicate sample results are presented in brackets.
4. EPA Region 9 PRGs not available.
5. Note that EPA Region 9 Commercial PRGs have been applied to recreational averaging areas.
6. NA - Not analyzed.

Data Qualifiers:

B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.
J - Estimated value.

TABLE 3
PROPOSED "X" VALUES FOR CONCEPTUAL RD/RA EVALUATIONS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PARCEL ID	PROPOSED "X" DEPTH FOR RD/RA EVALUATION (ft. bgs)	SUPPORTING RATIONALE
I9-9-1 (bank)	8	Sample results within the 6- to 8-foot depth increment range from non-detect to 16 ppm (estimated value). Three PCB analytical results exist below 8 feet within this evaluation area. PCBs were detected in one of those samples at a concentration of 0.043 ppm (estimated value) in a sample collected from the 7- to 9-foot depth increment at location I9-9-1-SB-2. GE does not believe that this result warrants extending "X" below 8 feet.
I9-9-9 (bank)	9	PCBs were detected at 45 ppm (estimated value) within the 7- to 9-foot depth increment at one of the two boring locations. PCBs were detected at 0.073 ppm (estimated value) in samples collected from the 9- to 11-foot depth increment at these two locations. GE does not believe that these results warrant extending "X" below 9 feet.
I9-9-9 (non-bank)	11	All three soil boring locations extend to a depth of at least 11 feet. Sample results within the 9- to 11-foot depth increment range from non-detect to 1.23 ppm (estimated value). PCBs were not detected below a depth of 11 feet.
I9-9-17 (bank)	5	Two of the three soil boring locations extend to a depth of 7 feet. Sample results within the 3- to 5-foot depth increment range from 0.079 ppm to 0.87 ppm. PCBs were not detected below a depth of 5 feet.
I9-9-18 (bank)	3	PCBs were detected at 33 ppm within the 1- to 3-foot depth increment at one of the two boring locations. PCBs were detected at 0.046 ppm in a sample collected from the 3- to 5-foot depth increment at the same location. GE does not believe that these results warrant extending "X" below 3 feet.
I9-9-19 (bank)	3	All three soil boring locations extend to a depth of at least 5 feet. Sample results within the 1- to 3-foot depth increment range from 0.152 ppm to 0.40 ppm (0.48 ppm in duplicate analysis). PCBs were not detected below a depth of 3 feet.
I9-9-23	3	All three soil boring locations extend to a depth of 3 feet. Sample results within the 1- to 3-foot depth increment range from 0.25 ppm to 0.35 ppm.
I9-9-24	15	Six of the seven soil boring locations extend to a depth of 15 feet. Sample results within the 13- to 15-foot depth increment range from non-detect to 620 ppm.

TABLE 3
PROPOSED "X" VALUES FOR CONCEPTUAL RD/RA EVALUATIONS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PARCEL ID	PROPOSED "X" DEPTH FOR RD/RA EVALUATION (ft. bgs)	SUPPORTING RATIONALE
I9-9-30 (bank)	3	All four soil boring locations extend to a depth of 3 feet. Sample results within the 1- to 3-foot depth increment range from 0.61 ppm to 1.28 ppm.
I9-9-30 (non-bank)	6	Three of four soil boring locations extend to a depth of 10 feet. The sample results from within the 3- to 6-foot depth increment range from non-detect to 0.78. PCBs were not detected below a depth of 6 feet.
I9-9-31	3	All three soil boring locations extend to a depth of 3 feet. Sample results within the 1- to 3-foot depth increment range from 0.166 ppm to 0.46 ppm.
I9-10-8 (bank)	9	Nine of sixteen soil boring locations extend to a depth of at least 8 feet. Sample results within the 7- to 9-foot depth increment range from non-detect to 0.154 ppm. One PCB analytical result exists below 9 feet within this evaluation area. PCBs were detected at a concentration of 0.060 ppm (estimated value), collected from the 9- to 11-foot depth increment at location I9-10-8-SB-9. GE does not believe that this result warrants extending "X" below 9 feet.
I9-10-8 (non-bank)	11	Two of seventeen soil boring locations (i.e., locations sampled deeper than 1 foot) extend to a depth of at least 11 feet. Sample results within the 9- to 11-foot depth increment range from non-detect to 2.76 ppm. Two PCB analytical results exist below 11 feet within this evaluation area. PCBs were detected at a concentration of 0.515 ppm in the 11- to 13-foot depth interval at location I9-10-8-SB-12. PCBs were non-detect in the 13- to 15-foot depth interval at this same location. GE does not believe that these results warrant extending "X" below 11 feet.
I9-10-11 (non-bank)	9	Of the three soil boring locations, only one extends to a depth deeper than 8 feet. Sample results within the 6- to 8-foot and 7- to 9-foot depth increments ranged from non-detect to 0.99 ppm (estimated value). Only one PCB analytical result exists deeper than 9 feet, with a result of 0.078 ppm (estimated value). GE does not believe that this result warrants extending "X" below 9 feet.

Figures

LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY
- APPROXIMATE WATER SURFACE
- SILVER LAKE REMOVAL ACTION AREA

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY; AND BLASLAND & BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES/LIMITS ARE APPROXIMATE.

0 500' 1000'
APPROXIMATE SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

REMOVAL ACTION AREA

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
1-1

SYR-85-NES KFS GMS LAYER: ON=*; OFF=REF
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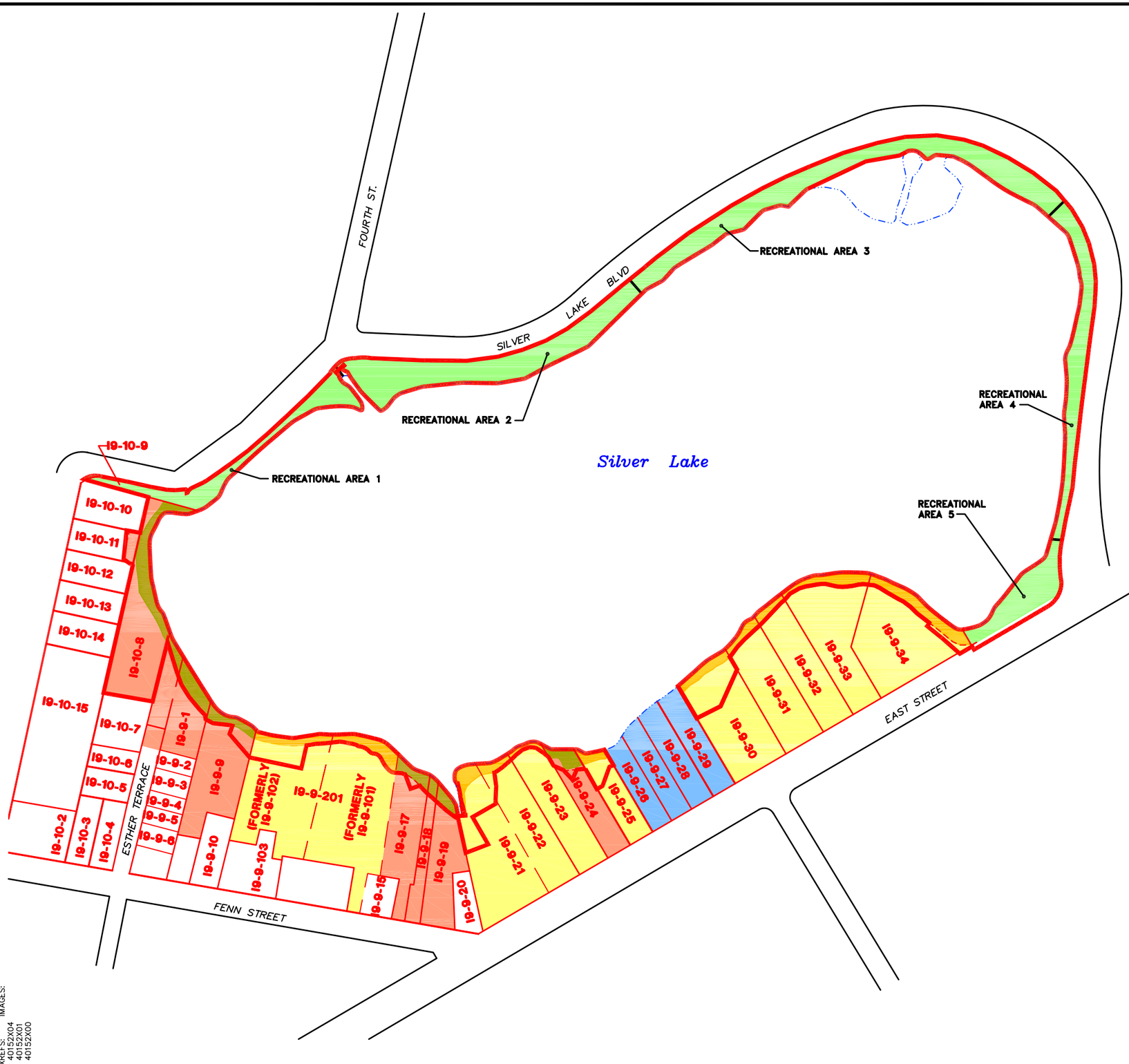

LEGEND:

- MEAN WATER ELEV (975.9) (APPROX.)
- PROPERTY BOUNDARY
- BOUNDARY BETWEEN COMMONLY OWNED PROPERTIES
- 19-9-201 PROPERTY ID
- LIMIT OF SILVER LAKE SOILS RAA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- COMMERCIAL PROPERTY
- BANK PORTIONS OF COMMERCIAL PROPERTIES
- RESIDENTIAL PROPERTY
- BANK PORTIONS OF RESIDENTIAL PROPERTIES
- PROPERTY ADDRESSED AS PART OF ADMINISTRATIVE CONSENT ORDER WITH MDEP
- RECREATIONAL AVERAGING AREAS

NOTES:

1. BASE MAP MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. GE1104-CX101, REV C, DATED 9/26/06.
2. PREVIOUS PROPERTY BOUNDARY INFORMATION FROM SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. GE1104-CX101, REV B, DATED 5/9/06.
3. THE APPROXIMATE MEAN WATER ELEVATION BASED ON HILL TOPOGRAPHIC SURVEY AND OCEAN SURVEYS, INC. BATHYMETRIC SURVEY (JUNE 2003).

0 200' 400'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

SITE PLAN

ARCADIS BBL
infrastructure, environment, facilities

FIGURE 1-2

SYR-85-DMW KFS JHR LAYER: ON=*; OFF=*REF*,|AREAS,|armor-edge,|BLD,|BLD-2,|BLDADD,|BNDS,|BT BRM,|COCONUT,|CONT-MJR,|CONTOUR,|DECK,|EO GRANIT,|EO_CONCRETE,|EO_GRAVEL,|EO_PAVEMENT,|EO_WATER,|FL_CHAINLINK,|FL_WIRE,|FL_WOOD,|G03-SCREEN,|GRANITCURB,|GUARDRAIL|HATCH,|HEDGE,|MAP_NUM,|MISC,|PL-1D,|PL-2ID,|PL-RD,|PLANS,|POOL,|shade-paved,|SHADE-PAVED-1,|SHADE-PAVED-2,|STREET-NAME,|STRUCTURE-OH-OFF,|STRUCTURE DRAIN,|structbld,|TEXT,|TEXT-TREE-TWIN-12INCH,|TEXT_1,|TEXT_GAS,|TEXT_TREE,|TREELINE,|TREES,|U-D,|U-G,|U-OH,|U-W,|WELLS,
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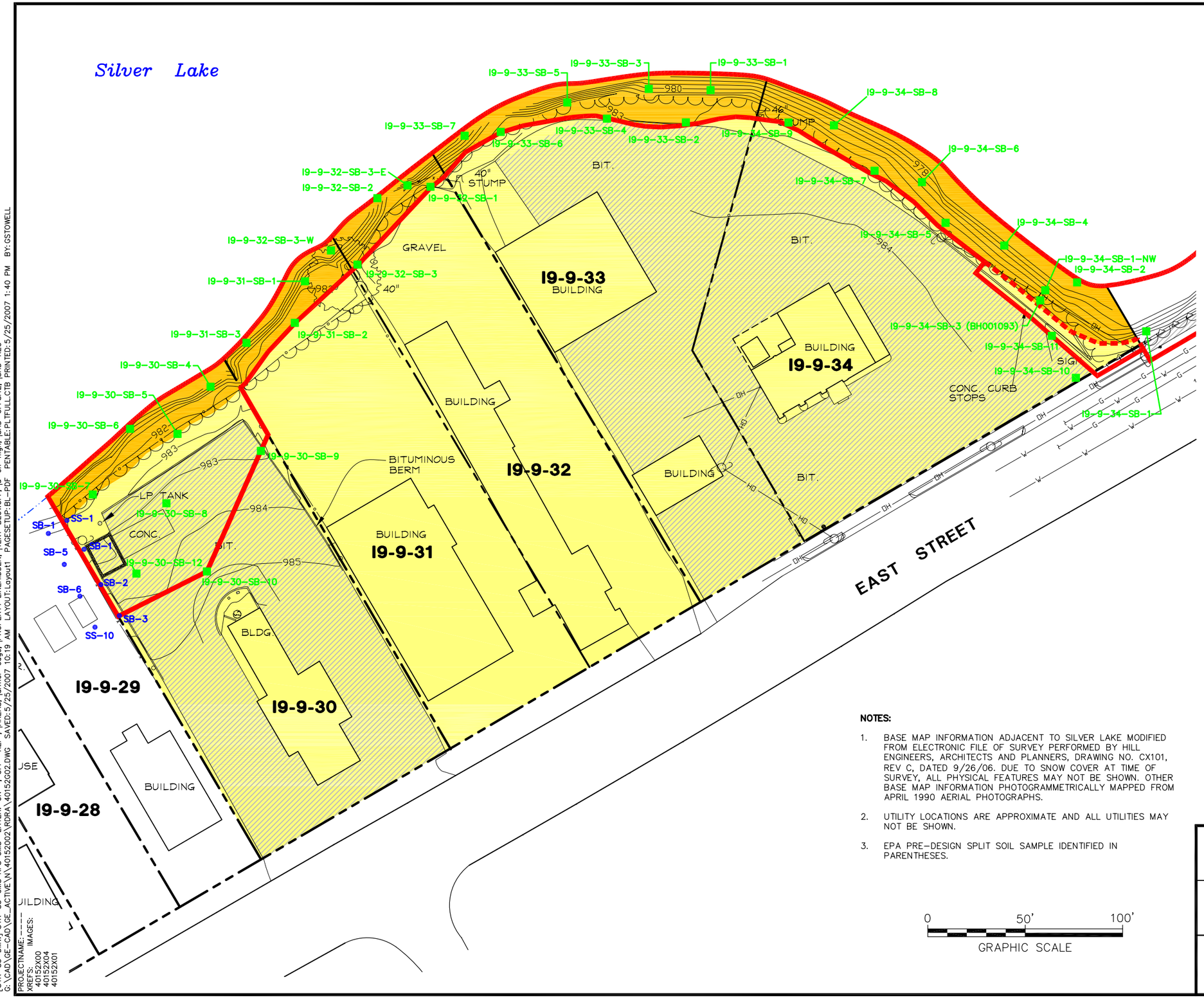

LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- I9-9-30 PROPERTY ID
- 980 SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- GUARDRAIL
- WOODEN FENCE
- WIRE FENCE
- CHAIN LINK FENCE
- DECIDUOUS TREE
- UTILITY POLE
- OH OVERHEAD ELECTRIC
- G GAS LINE
- W WATER LINE
- COMMERCIAL PROPERTY
- BANK PORTIONS OF COMMERCIAL PROPERTIES
- PAVED AREAS
- HISTORICAL (PRE-2003) SOIL SAMPLE LOCATION
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROXIMATE)

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.
3. EPA PRE-DESIGN SPLIT SOIL SAMPLE IDENTIFIED IN PARENTHESES.

0 50' 100'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

SOIL SAMPLE LOCATIONS (PARCELS I9-9-30, -31, -32, -33, AND -34)

ARCADIS BBL
infrastructure, environment, facilities

FIGURE 2-1

[SYR-85-DMW] SYR-85-GMS KFS GMS LAYER: ON=*, OFF=*REF*, |AREAS, |armor-edge, |PROPERTY LINEHIDDEN, |TEXT-BLOWOFF, |u-oh-high, |SHD-OFFSITE, |SHD-REC
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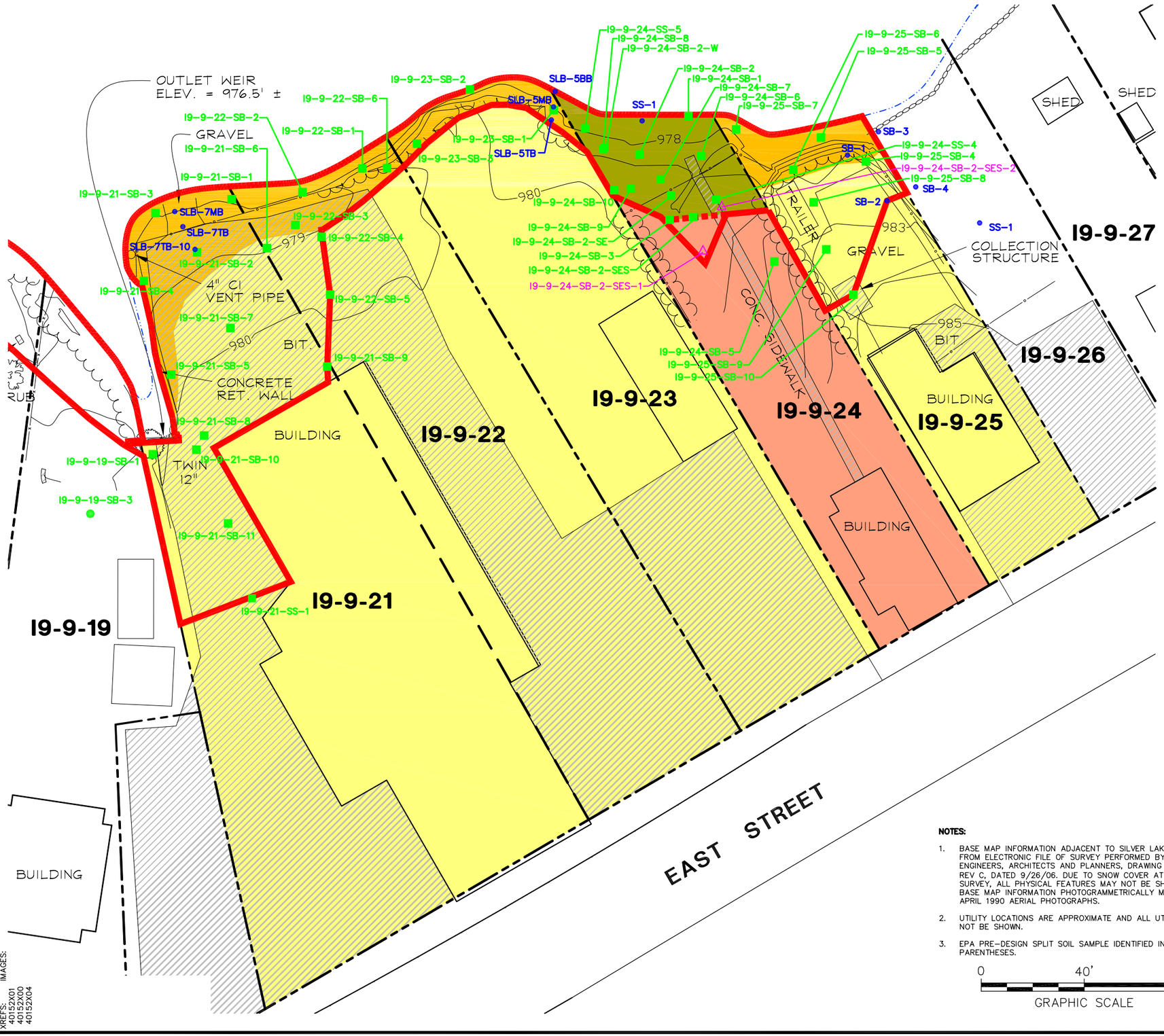

LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- BOUNDARY BETWEEN COMMONLY OWNED PROPERTIES
- I9-9-23 PROPERTY ID
- 980 SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- WIRE FENCE
- CHAIN LINK FENCE
- RETAINING WALL
- DECIDUOUS TREE
- BANK PORTIONS OF COMMERCIAL PROPERTIES
- BANK PORTIONS OF RESIDENTIAL PROPERTY
- RESIDENTIAL PROPERTY
- COMMERCIAL PROPERTIES
- PAVED AREAS
- HISTORICAL (PRE-2003) SOIL SAMPLE LOCATION
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MARCH/MAY 2007 SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROX.)

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.
3. EPA PRE-DESIGN SPLIT SOIL SAMPLE IDENTIFIED IN PARENTHESES.

0 40' 80'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

SOIL SAMPLE LOCATIONS (PARCELS I9-9-21, -22, -23, -24, AND -25)

ARCADIS BBL
infrastructure, environment, facilities

FIGURE
2-2

[SYR-85-DMW LEAD] SYR-85-GMS GMS KFS GMS LAYER: ON=*; OFF=*REF* |AREAS, |ormor-edge, |PROPERTY LINEHIDDEN, |u-oh-high, |WELLS, |SHD-NON-R-BANK-G3, |SHD-OFFSITE, |SHD-RES-BANK-G3, |SHD-RES-G3
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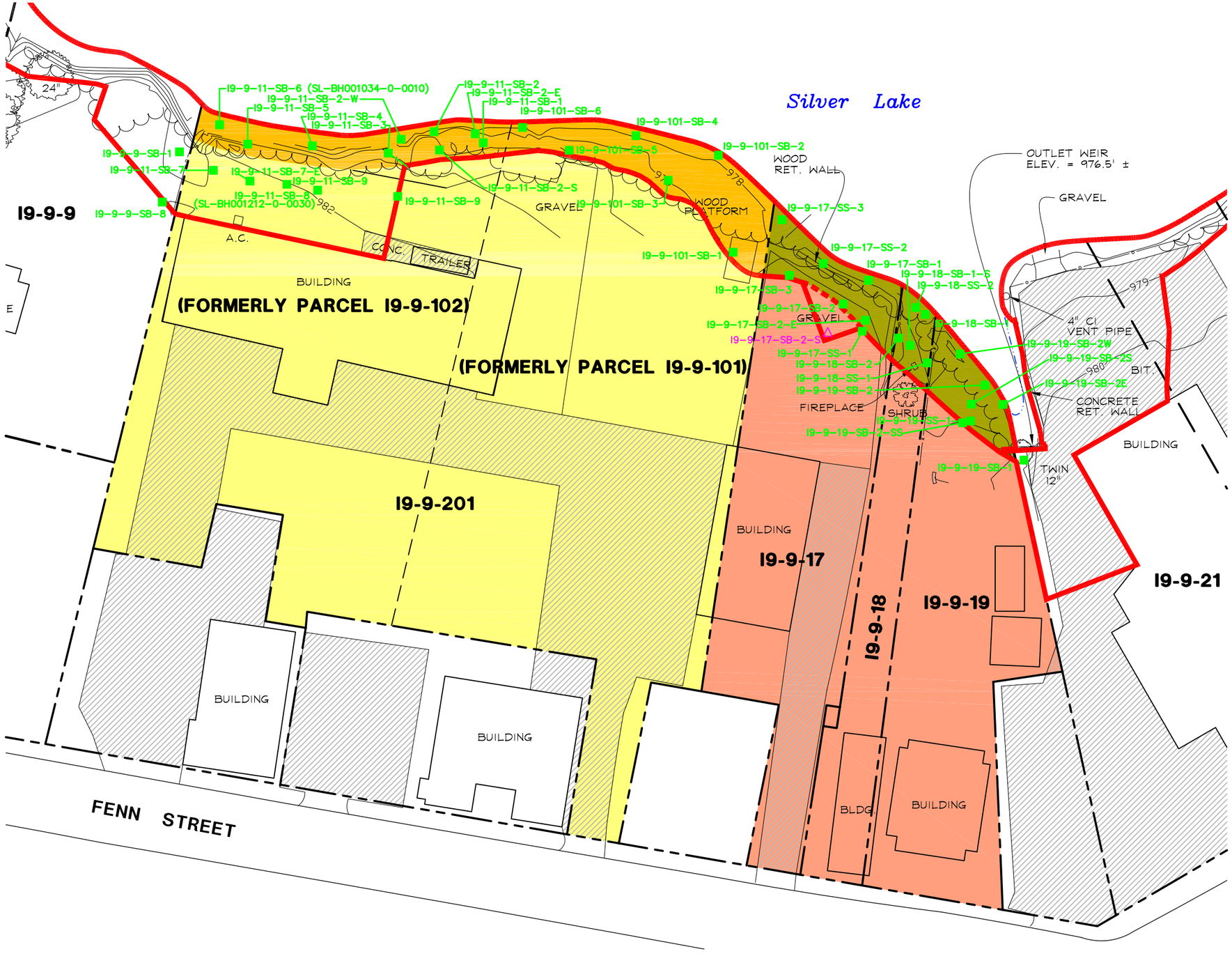

LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- APPROXIMATE FORMER PROPERTY LINE
- BOUNDARY BETWEEN COMMONLY OWNED PROPERTIES
- I9-9-17 PROPERTY ID
- 978 SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- WIRE FENCE
- CHAIN LINK FENCE
- DECIDUOUS TREE
- BANK PORTIONS OF COMMERCIAL PROPERTIES
- BANK PORTIONS OF RESIDENTIAL PROPERTIES
- COMMERCIAL PROPERTY
- RESIDENTIAL PROPERTY
- PAVED AREAS
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MARCH/MAY 2007 SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROX.)

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.
3. PRE-DESIGN SAMPLES (2003, 2004, AND/OR 2005) FROM PARCEL I9-9-19 WERE COLLECTED BY EPA REPRESENTATIVES AND PROCESSED BY GE REPRESENTATIVES.
4. EPA PRE-DESIGN SPLIT SOIL SAMPLE IDENTIFIED IN PARENTHESES.

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

SOIL SAMPLE LOCATIONS (PARCELS I9-9-201, -17, -18, AND -19)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
2-3

[SYR-85-DMW LEAD] SYR-85-DMW KFS GMS LAYER: ON=*; OFF=*REF* |armor-edge; |DEBRIS, |PROPERTY LINEHIDDEN, |u--oh-high, ISHD-NON-R-BANK, ISHD-RES, ISHD-RES-BANK
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40152X04

[SYR-85-DMW LEAD] SYR-85-DMW KFS GMS LAYER: ON=*, OFF=*REF*, |armor-edge, |PROPERTY LINEHIDDEN, |u-oh-high, |WELLS, |SHD-NON-R-BANK-G3, |SHD-NON-R-G3, |SHD-REC
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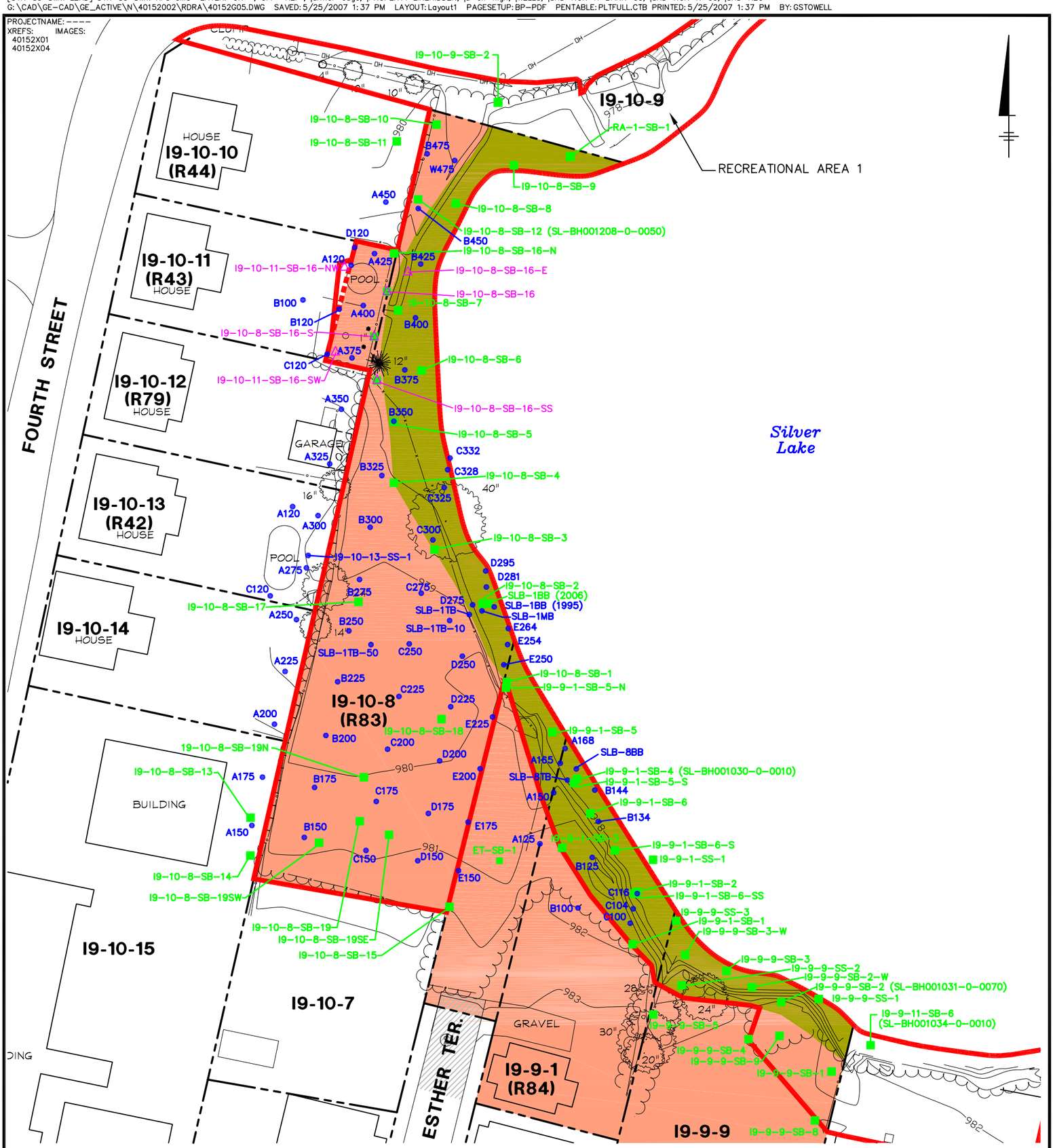


LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- I9-10-8 (R83) — PROPERTY ID / EPA START RESIDENTIAL PROPERTY SAMPLING PROGRAM REFERENCE NUMBER
- 980 — SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- GUARDRAIL
- WOODEN FENCE
- WIRE FENCE
- CHAIN LINK FENCE
- DECIDUOUS TREE
- CONIFEROUS TREE
- OH — OVERHEAD WIRES
- UTILITY POLE
- SIGN
- PAVED AREAS
- RESIDENTIAL PROPERTY
- BANK PORTIONS OF RESIDENTIAL PROPERTIES
- HISTORICAL (PRE-2003) PCB SOIL SAMPLE LOCATION
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MARCH/MAY 2007 SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROX.)

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS. SOME PROPERTY LINES ALONG ESTHER TERRACE FROM CITY OF PITTSFIELD TAX MAPS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.
3. EPA PRE-DESIGN SPLIT SOIL SAMPLE IDENTIFIED IN PARENTHESES.

0 50' 100'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

SOIL SAMPLE LOCATIONS (PARCELS I9-9-1 & -9, I9-10-8, & -11)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
2-4

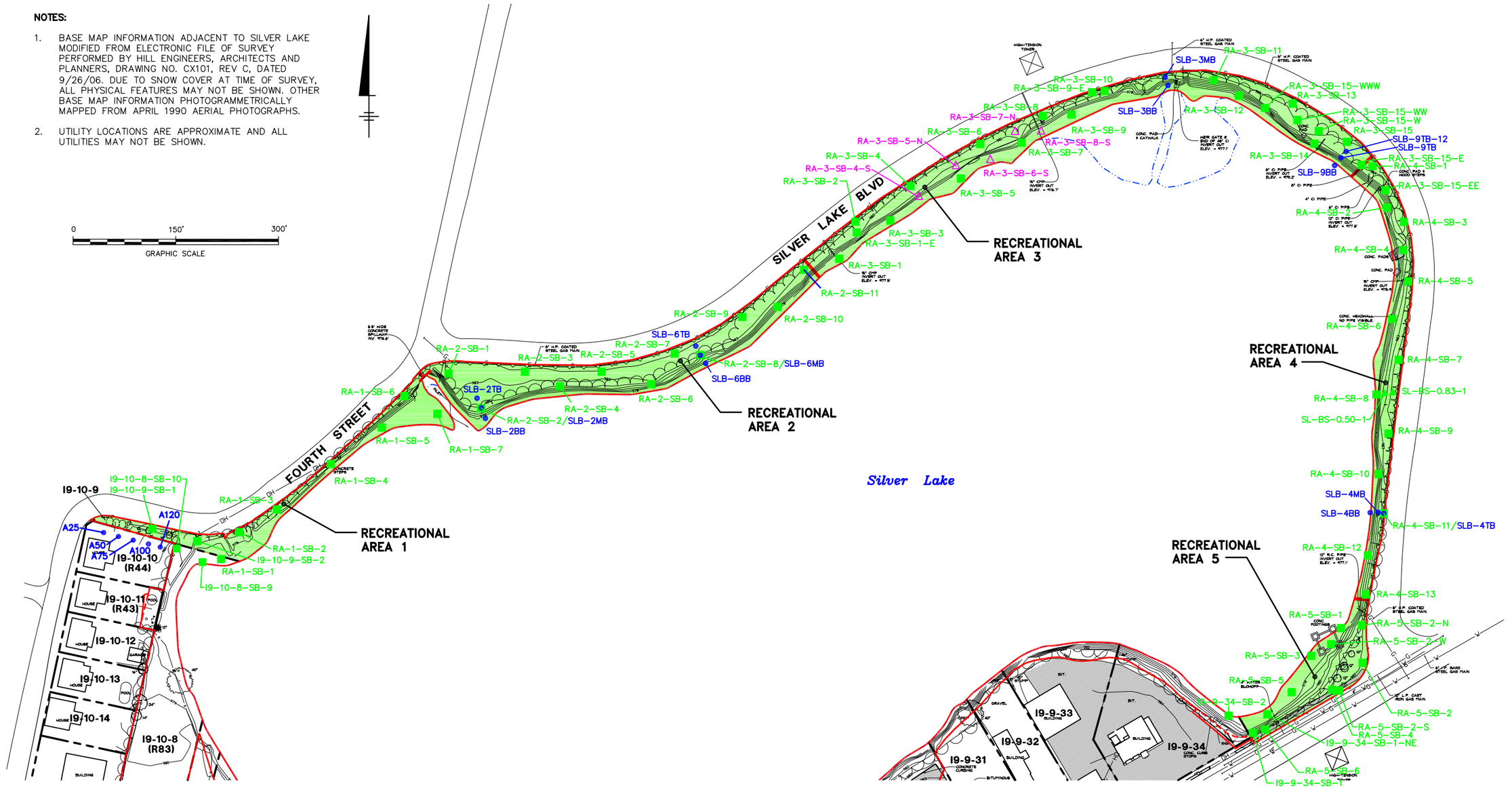
NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.

2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.

0 150' 300'

GRAPHIC SCALE



LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- I9-10-9 PROPERTY ID
- MEAN WATER ELEV (975.9) (APPROX.)
- 983 SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- GUARDRAIL
- CHAIN LINK FENCE
- DECIDUOUS TREE
- CONIFEROUS TREE
- G GAS SERVICE
- W WATER SERVICE
- D STORM SEWER
- SANITARY MANHOLE
- CATCH BASIN
- UTILITY POLE
- SIGN
- ELECTRIC METER
- RECREATIONAL AVERAGING AREA SUBJECT TO PRE-DESIGN INVESTIGATIONS
- PAVED AREA
- HISTORICAL (PRE-2003) SOIL SAMPLE LOCATION
- PRE-DESIGN SOIL SAMPLE LOCATION
- ADDITIONAL SAMPLE LOCATION COLLECTED DURING THE PERFORMANCE OF PILOT STUDY
- MARCH/MAY 2007 SOIL SAMPLE LOCATION

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

SOIL SAMPLE LOCATIONS (RECREATIONAL AREAS)

ARCADIS BBL
infrastructure, environment, facilities

FIGURE
2-5

[SYR-85-DMW LEAD] SYR-85-DMW LAF GMS LAYER: ON=*; OFF=*REF* |AREAS, |armor-edge, |DEBRIS, |PL-ID, |PROPERTY LINE|HIDDEN, |STREET-NAME, |u-oh-high, |WELLS
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LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- I9-9-30 PROPERTY ID
- 980 SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- GUARDRAIL
- WOODEN FENCE
- WIRE FENCE
- CHAIN LINK FENCE
- DECIDUOUS TREE
- UTILITY POLE
- OH OVERHEAD ELECTRIC
- G GAS LINE
- W WATER LINE
- PAVED AREAS
- HISTORICAL (PRE-2003) SOIL SAMPLE LOCATION
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROXIMATE)
- 1-FOOT REMOVAL
- 3-FOOT REMOVAL
- AREA PROPOSED FOR PCB AND APPENDIX IX+3 SOIL REMOVAL
- APPENDIX IX+3 REMOVAL AREA ONLY

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.
3. EPA PRE-DESIGN SPLIT SOIL SAMPLE IDENTIFIED IN PARENTHESES.

0 50' 100'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

PRELIMINARY SOIL-RELATED RESPONSE ACTIONS (PARCELS I9-9-30, -31, -32, -33, AND -34)

ARCADIS BBL
infrastructure, environment, facilities

FIGURE 4-1

[SYR-85-DWM] SYR-85-GMS LAYER: ON=*; OFF=*REF*,IAREAS,|armor-edge |PROPERTY LINEHIDDEN,|TEXT-BLOWOFF,|u-oh-high
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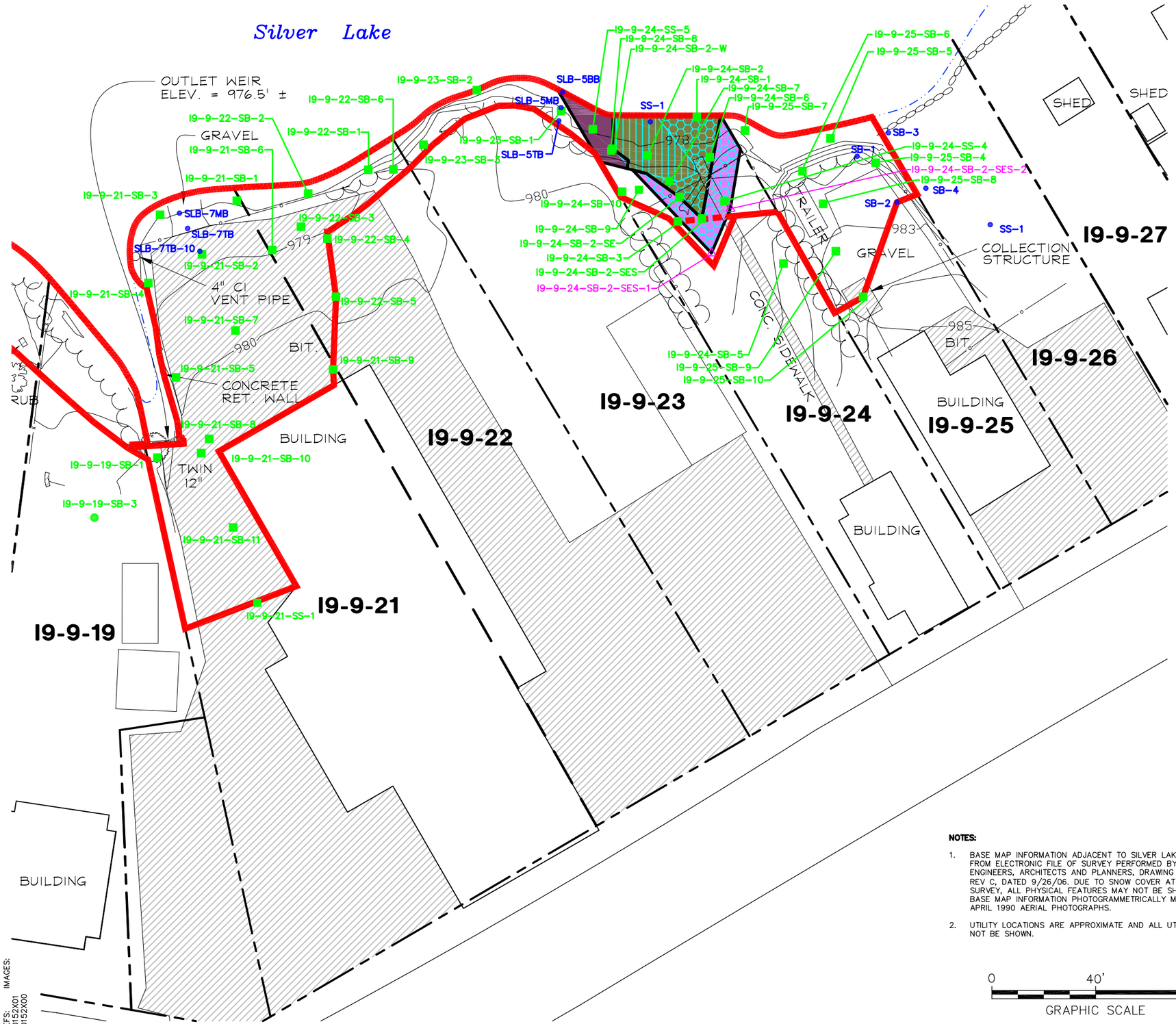

LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- BOUNDARY BETWEEN COMMONLY OWNED PROPERTIES
- I9-9-23 PROPERTY ID
- 980 SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- WIRE FENCE
- CHAIN LINK FENCE
- RETAINING WALL
- DECIDUOUS TREE
- PAVED AREAS
- HISTORICAL (PRE-2003) SOIL SAMPLE LOCATION
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MARCH/MAY 2007 SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROX.)
- 11-FOOT REMOVAL
- 13-FOOT REMOVAL
- 15-FOOT REMOVAL
- AREA PROPOSED FOR PCB AND APPENDIX IX+3 SOIL REMOVAL
- APPENDIX IX+3 REMOVAL AREA ONLY

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.

0 40' 80'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

PRELIMINARY SOIL-RELATED RESPONSE ACTIONS (PARCELS I9-9-21, -22, -23, -24, AND -25)

ARCADIS BBL
infrastructure, environment, facilities

FIGURE
4-2

[SYR-85-DMW LEAD] SYR-85-GMS JHR GMS LAYER: ON=*; OFF=*REF*; |AREAS, |armor-edge, |PROPERTY LINEHIDDEN, |u-oh-high, |WELLS
G:\CAD\GE-CAD\GE_ACTIVE\N\40152002\RDRA\40152G81.DWG SAVED:5/25/2007 2:02 PM BY:GSTOWELL
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LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- APPROXIMATE FORMER PROPERTY LINE
- BOUNDARY BETWEEN COMMONLY OWNED PROPERTIES
- I9-9-17 — PROPERTY ID
- 978 — SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- WIRE FENCE
- CHAIN LINK FENCE
- DECIDUOUS TREE
- PAVED AREAS
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MARCH/MAY 2007 SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROX.)
- 1-FOOT REMOVAL
- 3-FOOT REMOVAL
- 5-FOOT REMOVAL
- 6-FOOT REMOVAL
- AREA PROPOSED FOR PCB AND APPENDIX IX+3 SOIL REMOVAL
- APPENDIX IX+3 REMOVAL AREA ONLY

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.
3. PRE-DESIGN SAMPLES (2003, 2004, AND/OR 2005) FROM PARCEL I9-9-19 WERE COLLECTED BY EPA REPRESENTATIVES AND PROCESSED BY GE REPRESENTATIVES.
4. EPA PRE-DESIGN SPLIT SOIL SAMPLE IDENTIFIED IN PARENTHESES.

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

PRELIMINARY SOIL-RELATED RESPONSE ACTIONS (PARCELS I9-9-201, -17, -18, -19)

ARCADIS BBL
infrastructure, environment, facilities

FIGURE
4-3

[SYR-85-DWW LEAD] SYR-85-DWW JHR GMS LAYER: ON=*; OFF=*REF*, larmor-edge, |DEBRIS, |PROPERTY LINEHIDDEN, lu-oh-high
G:\CAD\GE-CAD\GE_ACTIVE\W\40152002\RDRA\40152G77.DWG SAVED:5/25/2007 1:24 PM LAYOUT:Layout1 PAGESETUP:BL-PDF PENTABLE:PLTFULL.CTB PRINTED:5/25/2007 1:24 PM BY:GSTOWELL
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[SYR-85-DMW LEAD] SYR-85-DMW JHR GMS LAYER: ON=*, OFF=*REF*, |armor-edge, |DEBRIS, |FL_WOOD, |PROPERTY LINEHIDDEN, |u-oh-high, |WELLS, |SHD-NON-R-BANK-G3, |SHD-REC, |SHD-RES, |SHD-RES-BANK
G:\CAD\GE-CAD\GE_ACTIVE\N\40152002\RDRA\40152G79.DWG SAVED: 5/25/2007 1:42 PM LAYOUT: Layout1 PAGESETUP: BP-PDF PENTABLE: PLTFULL.CTB PRINTED: 5/25/2007 1:42 PM BY: GSTOWELL
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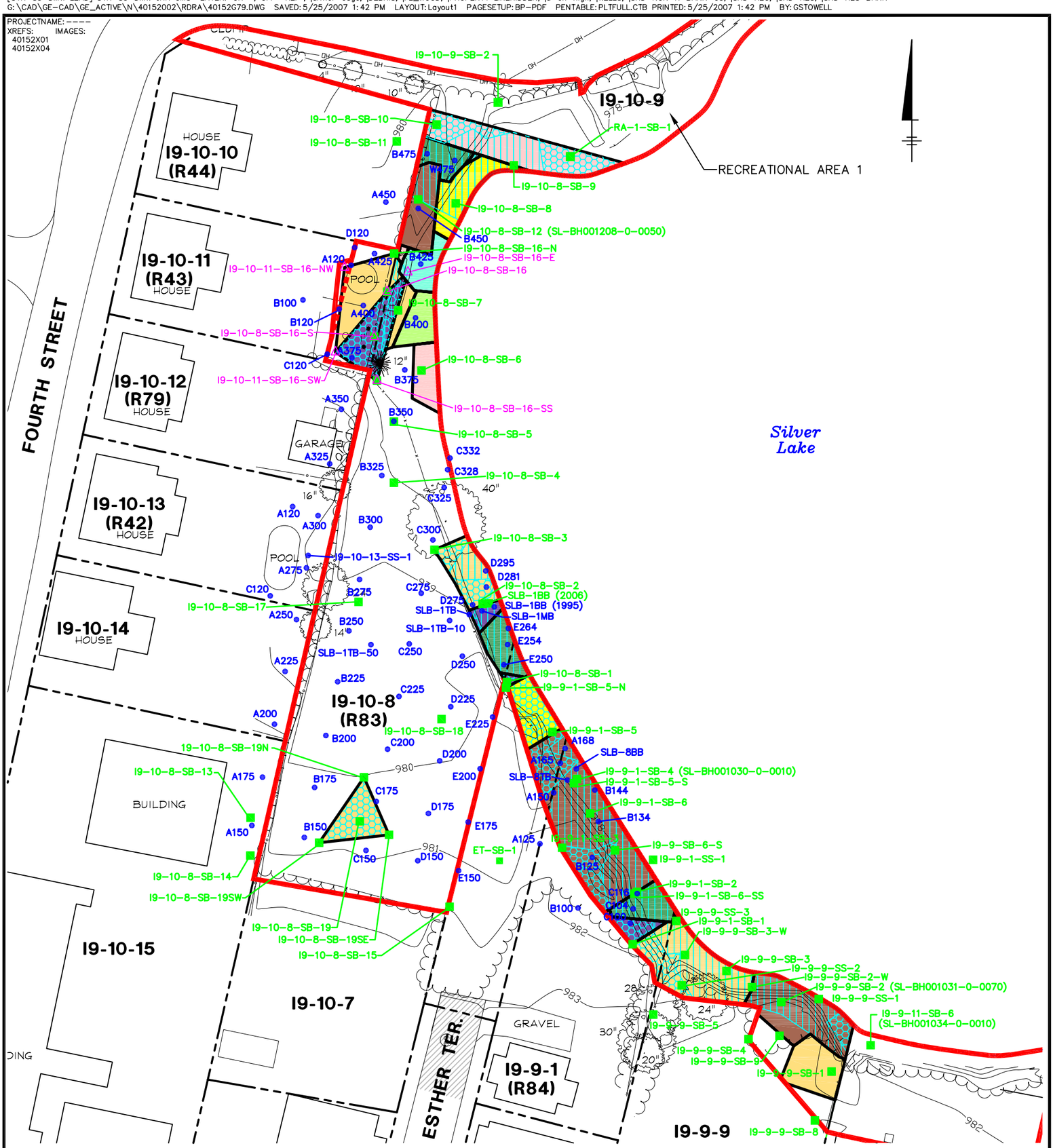

LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- I9-10-8 (R83) — PROPERTY ID / EPA START RESIDENTIAL PROPERTY SAMPLING PROGRAM REFERENCE NUMBER
- 980 — SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- GUARDRAIL
- WOODEN FENCE
- WIRE FENCE
- CHAIN LINK FENCE
- DECIDUOUS TREE
- CONIFEROUS TREE
- OH — OVERHEAD WIRES
- UTILITY POLE
- SIGN
- PAVED AREAS
- HISTORICAL (PRE-2003) PCB SOIL SAMPLE LOCATIONS
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- MARCH/MAY 2007 SOIL SAMPLE LOCATION
- MEAN WATER ELEV (975.9) (APPROX.)
- 1-FOOT REMOVAL
- 2-FOOT REMOVAL
- 3-FOOT REMOVAL
- 5-FOOT REMOVAL
- 6-FOOT REMOVAL
- 7-FOOT REMOVAL
- 8-FOOT REMOVAL
- 9-FOOT REMOVAL
- AREA PROPOSED FOR PCB AND APPENDIX IX+3 SOIL REMOVAL
- APPENDIX IX+3 REMOVAL AREA ONLY

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS. SOME PROPERTY LINES ALONG ESTHER TERRACE FROM CITY OF PITTSFIELD TAX MAPS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.
3. EPA PRE-DESIGN SPLIT SOIL SAMPLE IDENTIFIED IN PARENTHESES.

0 50' 100'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

PRELIMINARY SOIL-RELATED RESPONSE ACTIONS (PARCELS I9-9-1 & -9, I9-10-8, & -11)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
4-4

NOTES:

1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.

0 150' 300'
GRAPHIC SCALE

SILVER LAKE BLVD
FOURTH STREET
Silver Lake
RECREATIONAL AREA 1
RECREATIONAL AREA 2
RECREATIONAL AREA 3
RECREATIONAL AREA 4
RECREATIONAL AREA 5

LEGEND:

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (DASHED WHERE ASSOCIATED WITH PCB EVALUATIONS ONLY)
- APPROXIMATE PROPERTY LINE
- I9-10-9 PROPERTY ID
- MEAN WATER ELEV (975.9) (APPROX.)
- SURFACE ELEVATION (1-FT CONTOUR)
- EDGE OF BUSHES
- GUARDRAIL
- CHAIN LINK FENCE
- DECIDUOUS TREE
- CONIFEROUS TREE
- GAS SERVICE
- WATER SERVICE
- STORM SEWER
- SANITARY MANHOLE
- CATCH BASIN
- UTILITY POLE
- SIGN
- ELECTRIC METER
- PAVED AREA
- HISTORICAL (PRE-2003) SOIL SAMPLE LOCATION
- PRE-DESIGN (2003-2006) SOIL SAMPLE LOCATION
- ADDITIONAL SAMPLE LOCATION COLLECTED DURING THE PERFORMANCE OF PILOT STUDY
- MARCH/MAY 2007 SOIL SAMPLE LOCATION
- 1-FOOT REMOVAL
- 3-FOOT REMOVAL
- AREA PROPOSED FOR PCB AND APPENDIX IX+3 SOIL REMOVAL
- APPENDIX IX+3 REMOVAL AREA ONLY

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE

PRELIMINARY SOIL-RELATED RESPONSE ACTIONS (RECREATIONAL AREAS)

ARCADIS BBL
infrastructure, environment, facilities

FIGURE 4-5

[SYR-85-DMW LEAD] SYR-85-DMW RCB GMS LAYER: ON=*; OFF=*REF*,AREAS,|armor-edge,|DEBRIS,|FL_WOOD,|PL-ID,|PROPERTY LINEHIDDEN,|STREET-NAME,|u-oh-high,|WELLS,|SHD-REC
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Appendices

Appendix A

Boring Logs

Date Start/Finish: 5/4/07
Drilling Company: ABBL
Driller's Name: GAR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 4' Macrocore

Northing: 533960.1
Easting: 130333.0
Casing Elevation: NA

Borehole Depth: 3' below grade
Surface Elevation: 976.7

Descriptions By: GAR

Boring ID: RA-3-SB-3

Client: General Electric Company

Location: Silver Lake, Recreational Area 3
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
0 / 976	1	0-1	2.3	0.0		Dark brown-black SILT and fine SAND, some Gravel.	Borehole backfilled with Bentonite.
975	2	1-3		0.0		Black fine SAND, some Gravel, strong odor.	
5 / 970							
10 / 965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analysis: 1-3': Lead.

Date Start/Finish: 5/1/07 **Drilling Company:** ABBL **Driller's Name:** GAR **Drilling Method:** Direct Push **Auger Size:** NA **Rig Type:** Hand Driven Macrocore **Sample Method:** 4' Macrocore	**Northing:** 533994.6 **Easting:** 130374.8 **Casing Elevation:** NA **Borehole Depth:** 3' below grade **Surface Elevation:** 977.7 **Descriptions By:** GAR	**Boring ID:** RA-3-SB-4-S **Client:** General Electric Company **Location:** Silver Lake, Recreational Area 3 Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0	1	0-1	2.7	0.0		Brown SILT, some fine Sand and Organic Material.	Borehole backfilled with Bentonite.
975	2	1-3		0.0		Black fine to coarse SAND, some Gravel, strong odor.	
5							
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': PCBs; 1-3': PCBs. MS/MSD collected (1-3': PCBs).

Date Start/Finish: 5/1/07
Drilling Company: ABBL
Driller's Name: GAR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 4' Macrocore

Northing: 534090.0
Easting: 130553.4
Casing Elevation: NA

Borehole Depth: 3' below grade
Surface Elevation: 976.5

Descriptions By: GAR

Boring ID: RA-3-SB-8-S

Client: General Electric Company

Location: Silver Lake, Recreational Area 3
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
0	1	0-1	2.2	0.0		Dark brown fine SAND with Silt, some gravel.	Borehole backfilled with Bentonite.
975	2	1-3		0.0		Black SILT and fine SAND, strong odor.	
5							
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': PCBs, 1-3': PCBs.

Date Start/Finish: 5/1/07
Drilling Company: ABBL
Driller's Name: GAR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 4' Macrocore

Northing: 534089.4
Easting: 130515.3
Casing Elevation: NA

Borehole Depth: 3' below grade
Surface Elevation: 980.8

Descriptions By: GAR

Boring ID: RA-3-SB-7-N

Client: General Electric Company

Location: Silver Lake, Recreational Area 3
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
0 / 980	1	0-1	2.4	0.0		Brown fine SAND, some Silt and Organic Material.	Borehole backfilled with Bentonite.
	2	1-3		0.0		Dark brown fine SAND with medium Sand, Slag, Ash and Cinders.	
5 / 975							
10 / 970							
15 / 965							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': PCBs; 1-3': PCBs.

Date Start/Finish: 5/1/07
Drilling Company: ABBL
Driller's Name: GAR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 4' Macrocore

Northing: 534048.4
Easting: 130479.1
Casing Elevation: NA

Borehole Depth: 3' below grade
Surface Elevation: 976.3

Descriptions By: GAR

Boring ID: RA-3-SB-6-S

Client: General Electric Company

Location: Silver Lake, Recreational Area 3
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
0							
	1	0-1	2.4	0.0		Black SILT, some fine Sand, strong odor.	Borehole backfilled with Bentonite.
975	2	1-3		0.0		Black SILT with gray-brown fine to coarse Sand and Gravel, strong odor.	
5							
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': PCBs' 1-3': PCBs.

Date Start/Finish: 5/1/07
Drilling Company: ABBL
Driller's Name: GAR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 4' Macrocore

Northing: 534039.7
Easting: 130428.9
Casing Elevation: NA

Borehole Depth: 3' below grade
Surface Elevation: 980.9

Descriptions By: GAR

Boring ID: RA-3-SB-5-N

Client: General Electric Company

Location: Silver Lake, Recreational Area 3
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
0 / 980	1	0-1	2.7	0.0		Dark brown fine SAND with Silt, some organic material.	Borehole backfilled with Bentonite.
	2	1-3		0.0		Brown and dark brown fine SAND with Silt, some gravel.	
5 / 975							
10 / 970							
15 / 965							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': PCB; 1-3': PCBs.
Duplicate Sample ID: SL-5-07-DUP-2 (PCBs, 1-3').

Date Start/Finish: 5/1/07
Drilling Company: ABBL
Driller's Name: GAR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Jackhammer Driven Power Probe
Sample Method: 4' Macrocore

Northing: 533409.8
Easting: 129276.8
Casing Elevation: NA

Borehole Depth: 7' below grade
Surface Elevation: 978.2

Descriptions By: JCM

Boring ID: I9-10-8-SB-16-E

Client: General Electric Company

Location: Silver Lake Parcel I9-10-8
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0	1	0-1	2.9	0.0		Brown SILT and ORGANIC MATERIAL, some gray-brown Marl.	Borehole backfilled with Bentonite.
	2	1-3		0.0		Gray-brown MARL with fine Sand, Gravel, Ash, and Cinder, slight odor.	
975	3	3-4		0.0		Dark gray-brown to black fine to coarse SAND and GRAVEL with Glass, strong odor.	
5	4	4-6	2.2	0.0		Dark gray-brown to black fine to coarse SAND and GRAVEL, strong odor.	
	5	6-7		0.0			
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': Lead; 1-3': Lead; 3-5': Lead, 5-7': Lead (analysis on hold).
Duplicate Sample ID: SL-5-07-DUP-3 (Lead, 0-1').
MS/MSD collected (Lead, 1-3').

Date Start/Finish: 3/14/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 532935.1
Easting: 129790.0
Casing Elevation: NA

Borehole Depth: 5' below grade
Surface Elevation: 979.6

Descriptions By: AMB

Boring ID: I9-9-17-SB-2-S

Client: General Electric Company

Location: Silver Lake Parcel I9-9-17
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980 / 0	1	0-1	3.8	0.0		Brown fine to medium SAND, trace Gravel.	Borehole backfilled with Bentonite.
	2	1-3		0.0		Gray-brown SILT, little fine to medium Sand, trace medium gravel.	
	3	3-4		0.0		Gray-brown fine SAND, trace Silt and fine to medium Gravel.	
975 / 5	4	4-5	1.0	0.0		SAA.	
970 / 10							
965 / 15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available; SAA = Same As Above.
Analysis: 3-5': TAL Metals. Duplicate Sample ID: DUP-001 (TAL Metals, 3-5').

Project: 40152.002
Data File:I9-9-17-SB-2-S.dat

Template: V:\GE_Silver_Lake_Confidential\Notes and Data\Logs\SilverLake-2007.ldf
Date: 5/23/07

Date Start/Finish: 3/14/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 532921.1
Easting: 129804.4
Casing Elevation: NA

Borehole Depth: 5' below grade
Surface Elevation: 979.4

Descriptions By: AMB

Boring ID: I9-9-17-SB-2-SSE

Client: General Electric Company

Location: Silver Lake Parcel I9-9-17
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980 / 0	1	0-1	3.8	0.0		Brown fine to medium SAND, trace Gravel.	Borehole backfilled with Bentonite.
	2	1-3		0.0		Gray-brown SILT, little fine Sand, trace gravel.	
	3	3-4		0.0		Gray-brown fine to medium SAND, trace Silt and fine to medium Gravel.	
975 / 5	4	4-5	1.0	0.0		Gray-brown fine to coarse SAND, some fine Gravel.	
970 / 10							
965 / 15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analysis: 3-5': TAL Metals (analysis on hold).

Project: 40152.002
Data File:I9-9-17-SB-2-SSE.dat
Template: V:\GE_Silver_Lake_Confidential\Notes and Data\Logs\SilverLake-2007.ldf
Date: 5/23/2007

Date Start/Finish: 3/14/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 532921.1
Easting: 129776.6
Casing Elevation: NA

Borehole Depth: 5' below grade
Surface Elevation: 980.0

Descriptions By: AMB

Boring ID: I9-9-17-SB-2-SSW

Client: General Electric Company

Location: Silver Lake Parcel I9-9-17
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
0 980	1	0-1	4.0	0.0		Brown fine SAND and SILT, trace fine to medium Gravel.	Borehole backfilled with Bentonite.
	2	1-3		0.0		Gray-brown fine to medium SAND, trace Brick and Wood.	
	3	3-4		0.0		Black SILT and fine SAND, trace fine Gravel and Wood.	
	4	4-5	1.0	0.0			
5 975							
10970							
15965							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analysis: 3-5': TAL Metals (analysis on hold).

Date Start/Finish: 3/14/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 533400.0
Easting: 129268.2
Casing Elevation: NA

Borehole Depth: 7' below grade
Surface Elevation: 979.3

Descriptions By: AMB

Boring ID: I9-10-8-SB-16

Client: General Electric Company

Location: Silver Lake Parcel I9-10-8
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980 / 0							
	1	0-1	2.2	0.0		Brown-black SILT, little fine to medium Sand, trace organic material (roots).	Borehole backfilled with Bentonite.
	2	1-3		0.0		Black SILT and fine SAND.	
	3	3-4		0.0			
975 / 5	4	4-5	3.0	0.0		Gray-black fine to coarse SAND with Brick and Concrete, trace fine to medium gravel, odor.	
	5	5-7		0.0			
970 / 10							
965 / 15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 3-5': TAL Metals; 5-7': TAL Metal (analysis on hold).
MS/MSD collected (TAL Metals, 3-5').

Project: 40152.002
Data File:I9-9-17-SB-2-16.dat
Template: V:\GE_Silver_Lake_Confidential\Notes and Data\Logs\SilverLake-2007.ldf
Date: 5/23/2007

Date Start/Finish: 3/14/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 533418.9
Easting: 129270.1
Casing Elevation: NA

Borehole Depth: 7' below grade
Surface Elevation: 978.9

Descriptions By: AMB

Boring ID: I9-10-8-SB-16-N

Client: General Electric Company

Location: Silver Lake Parcel I9-10-8
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0	1	0-1	2.1	0.0		Black SILT, trace fine to coarse Sand and fine to medium Gravel.	Borehole backfilled with Bentonite.
	2	1-3		0.0			
	3	3-4		0.0			
975	4	4-5	2.0	0.0		Black fine to coarse SAND, some medium Gravel, odor.	
5	5	5-7		0.0			
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 3-5': TAL Metals (analysis on hold);
5-7': TAL Metals (analysis on hold).

Date Start/Finish: 3/14/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 533378.4
Easting: 129260.4
Casing Elevation: NA

Borehole Depth: 7' below grade
Surface Elevation: 978.6

Descriptions By: AMB

Boring ID: I9-10-8-SB-16-S

Client: General Electric Company

Location: Silver Lake Parcel I9-10-8
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0	1	0-1	2.5	0.0		Dark brown SILT, little fine to medium Sand, trace wood and fine to medium gravel.	Borehole backfilled with Bentonite.
	2	1-3		0.0			
975	3	3-4		0.0			
5	4	4-5	2.1	0.0		Black SILT, some Organic Material (Roots), wet.	
	5	5-7		0.0			
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 3-5': TAL Metals; 5-7': TAL Metals.

Date Start/Finish: 3/14/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 533357.1
Easting: 129261.8
Casing Elevation: NA

Borehole Depth: 7' below grade
Surface Elevation: 977.8

Descriptions By: AMB

Boring ID: I9-10-8-SB-16-SS

Client: General Electric Company

Location: Silver Lake Parcel I9-10-8
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0	1	0-1	2.9	0.0		Brown SILT, little fine to medium Sand, trace organic material (roots).	Borehole backfilled with Bentonite.
	2	1-3		0.0		Black fine to medium SAND, trace Silt.	
975	3	3-4		0.0			
	4	4-5	2.1	0.0		Black coarse SAND, trace Silt.	
5	5	5-7		0.0		Gray-black fine to medium SAND, trace fine to medium Gravel.	
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 3-5': TAL Metals; 5-7': TAL Metals (analysis on hold).

Date Start/Finish: 3/15/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 533370.9
Easting: 129241.6
Casing Elevation: NA

Borehole Depth: 7' below grade
Surface Elevation: 978.4

Descriptions By: AMB

Boring ID: I9-10-11-SB-16-SW

Client: General Electric Company

Location: Silver Lake Parcel I9-10-11
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0	1	0-1	3.0	0.0		Black fine to medium SAND, some coarse Sand, trace fine to medium gravel.	Borehole backfilled with Bentonite.
	2	1-3		0.0		Brown-black fine to medium SAND and SILT, odor.	
975	3	3-4		0.0			
5	4	4-5	3.0	0.0		Brown-black fine to coarse SAND, some medium Gravel and Cinders, trace fine to medium gravel, wet.	
	5	5-7		0.0			
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': TAL Metals; 1-3': TAL Metals; 3-5': TAL Metals;
5-7': TAL Metals (analysis on hold).
Duplicate Sample ID: DUP-002 (TAL Metals, 0-1').
MS/MSD collected (TAL Metals, 1-3').

Date Start/Finish: 3/15/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 533412.1
Easting: 129246.0
Casing Elevation: NA

Borehole Depth: 7' below grade
Surface Elevation: 978.8

Descriptions By: AMB

Boring ID: I9-10-11-SB-16-NW

Client: General Electric Company

Location: Silver Lake Parcel I9-10-11
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0	1	0-1	2.3	0.0		Brown fine SAND, little Silt, trace fine to medium gravel.	Borehole backfilled with Bentonite.
	2	1-3		0.0			
	3	3-4		0.0			
975	4	4-5	2.0	0.0		Gray-brown fine to medium SAND, trace fine to medium Gravel, wet.	
5	5	5-7		0.0			
970							
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analyses: 0-1': TAL Metals; 1-3': TAL Metals; 3-5': TAL Metals;
5-7': TAL Metals.

Date Start/Finish: 3/15/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 532954.0
Easting: 130096.6
Casing Elevation: NA

Borehole Depth: 11' below grade
Surface Elevation: 979.3

Descriptions By: AMB

Boring ID: I9-9-24-SB-2-SES-1

Client: General Electric Company

Location: Silver Lake Parcel I9-9-24
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0						Pre-probed to 8.0' bgs.	Borehole backfilled with Bentonite.
975							
5							
970	1	9-11	2.5	0.0		Black ORGANIC MATERIAL, little fine to medium Sand, trace fine to medium gravel, odor, wet.	
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analysis: 9-11': TAL Metals.

Date Start/Finish: 3/15/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 532971.2
Easting: 130103.9
Casing Elevation: NA

Borehole Depth: 11' below grade
Surface Elevation: 979.1

Descriptions By: AMB

Boring ID: I9-9-24-SB-2-SES-2

Client: General Electric Company

Location: Silver Lake Parcel I9-9-24
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980							
0						Pre-probed to 8.0' bgs.	Borehole backfilled with Bentonite.
975							
5							
970	1	9-11	2.0	0.0		Black fine to coarse SAND, little fine to medium Gravel, wet.	
10							
965							
15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analysis: 9-11': TAL Metals.

Project: 40152.002
Data File:I9-9-24-SB-2-SES-2.dat
Template: V:\GE_Silver_Lake_Confidential\Notes and Data\Logs\SilverLake-2007.ldf
Date: 5/23/2007

Date Start/Finish: 3/15/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 532935.4
Easting: 130092.0
Casing Elevation: NA

Borehole Depth: 11' below grade
Surface Elevation: 979.7

Descriptions By: AMB

Boring ID: I9-9-24-SB-2-SES-3

Client: General Electric Company

Location: Silver Lake Parcel I9-9-24
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
980 / 0							
						Pre-probed to 8.0' bgs.	Borehole backfilled with Bentonite.
975 / 5							
970 / 10	1	9-11	2.3	0.0		Black-brown fine to coarse SAND, some Organic Material, trace medium gravel, wet.	
965 / 15							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analysis: 9-11': TAL Metals (analysis on hold).

Date Start/Finish: 3/15/07
Drilling Company: ABBL
Driller's Name: TOR
Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 4' Macrocore

Northing: 532956.6
Easting: 130120.3
Casing Elevation: NA

Borehole Depth: 11' below grade
Surface Elevation: 980.2

Descriptions By: AMB

Boring ID: I9-9-24-SB-2-SES-4

Client: General Electric Company

Location: Silver Lake Parcel I9-9-24
Pittsfield, Massachusetts

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
0 / 980						Pre-probed to 8.0' bgs.	Borehole backfilled with Bentonite.
	1	9-11	2.0	0.0		Brown fine to coarse SAND, some Wood, trace fine to medium gravel, odor, wet.	
10 / 970						Gray-white MARL.	
15 / 965							

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
Analysis: 9-11': TAL Metals (analysis on hold).

Project: 40152.002
Data File:I9-9-24-SB-2-SES-4.dat
Template: V:\GE_Silver_Lake_Confidential\Notes and Data\Logs\SilverLake-2007.ldf
Date: 5/23/2007

Appendix B

Data Validation Report for
Supplemental Soil Samples
Collected in March/May 2007

Appendix B
Soil Sampling Data Validation Report
Silver Lake Soil Sampling Spring 2007

General Electric Company
Pittsfield, Massachusetts

1.0 General

This appendix summarizes the Tier I and Tier II data reviews performed for soil samples collected during 2007 as part of pre-design investigation activities at properties adjacent to Silver Lake, located at the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. Samples were analyzed for polychlorinated biphenyls (PCBs), the complete target analyte list (TAL) metals, or lead (Pb) only, by SGS Environmental Services, Inc. (formerly Paradigm Analytical Labs, Inc.) of Wilmington, North Carolina. Data validation was performed for 11 polychlorinated biphenyl (PCB) samples and 25 metals samples.

2.0 Data Evaluation Procedures

This attachment outlines the applicable quality control criteria utilized during the data review process and any deviations from those criteria. The data review was conducted in accordance with the following documents:

- *Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007);*
- *Region I Tiered Organic and Inorganic Data Validation Guidelines*, USEPA Region I (July 1, 1993);
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses,* USEPA Region I (June 13, 1988) (Modified February 1989);
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, USEPA Region I (February 1, 1988) (Modified November 1, 1988); and
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, USEPA Region I (Draft, December 1996).

A tabulated summary of the Tier I and Tier II data evaluations is presented in Table B-1. Each sample subjected to evaluation is listed in Table B-1 to document the performance of that data review, as well as to indicate the level of data validation (Tier I or Tier II) applied. Samples that required data qualification are listed separately for each parameter (compound or analyte) that required qualification.

The following data qualifiers were used in this data evaluation:

J The compound was positively identified, but the associated numerical value is an estimated concentration. This qualifier is used when the data evaluation procedure identifies a deficiency in the data generation process. This qualifier is also used when a compound is detected at an estimated concentration less than the corresponding practical quantitation limit (PQL).

U The compound was analyzed for, but was not detected. The sample quantitation limit is presented and adjusted for dilution and (for solid samples only) percent moisture. Non-detect sample results are presented as ND(PQL) within this report and in Table C-1 for consistency with documents previously prepared for investigations conducted at this site.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is estimated and may or may not represent the actual level of quantitation. Non-detect sample results that required qualification are presented as ND(PQL) J within this report and in Table C-1 for consistency with documents previously prepared for this investigation.

R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data should not be used for any qualitative or quantitative purpose.

3.0 Data Validation Procedures

Section 7.5 of the FSP/QAPP provides that all analytical data will be validated to a Tier I level following the procedures presented in the *Region I Tiered Organic and Inorganic Data Validation Guidelines* (USEPA guidelines). Accordingly, 100% of the analytical data for these investigations were subjected to Tier I review. The Tier I review consisted of a completeness evidence audit, as outlined in the *USEPA Region I CSF Completeness Evidence Audit Program* (USEPA Region I, 7/31/91), to ensure that all laboratory data and documentation were present. In the event data packages were determined to be incomplete, the missing information was requested from the laboratory. Upon completion of the Tier I review, the data packages complied with the USEPA Region I Tier I data completeness requirements.

A Tier II review was performed to resolve data usability limitations identified from laboratory qualification of the data. The Tier II data review consisted of a review of all data package summary forms for identification of quality assurance/quality control (QA/QC) deviations and qualification of the data according to the Region I Data Validation Functional Guidelines. The Tier II review resulted in the qualification of data for several samples due to minor QA/QC deficiencies. Additionally, all field duplicates were examined for relative percent difference (RPD) compliance with the criteria specified in the FSP/QAPP. A tabulated summary of the samples subjected to Tier I and Tier II data evaluations is presented in the following table.

Summary of Samples Subjected to Tier I and Tier II Data Validation

Parameter	Tier I Only			Tier I &Tier II			Total
	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	
PCBs	0	0	0	10	1	0	11
Metals	6	0	0	16	3	2	25
Total	**6**	**0**	**0**	**26**	**4**	**2**	**36**

As specified in the FSP/QAPP, approximately 25% of the laboratory sample delivery group packages were randomly chosen to be subjected to Tier II review. A Tier II review was also performed to resolve data usability limitations identified from laboratory qualification of the data during the Tier I data review. The Tier II data review consisted of a review of all data package summary forms for identification of quality assurance/quality control (QA/QC) deviations and qualification of the data according to the Region I Data

Validation Functional Guidelines. Due to the variable sizes of the data packages and the number of data qualification issues identified during the Tier I review, approximately 83% of the data were subjected to a Tier II review. A summary of the QA/QC parameter deviations that resulted in data qualification is presented below.

4.0 Data Review

Contract required detection limit (CRDL) standards were analyzed to evaluate instrument performance at low-level concentrations that are near the analytical method PQL. These standards are required to have recoveries between 80% and 120% to verify that the analytical instrumentation was properly calibrated. When CRDL standard recoveries were outside the 80% to 120% control limits, the affected samples with detected results at or near the PQL concentration (i.e., less than three times the PQL) were qualified as estimated (J). The analytes that did not meet CRDL criteria and the number of samples qualified due to those deviations are presented in the following table.

Analytes Qualified Due to CRDL Standard Recovery Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Metals	Beryllium	3	J
	Cadmium	13	J
	Selenium	13	J
	Silver	7	J

Matrix spike/matrix spike duplicate (MS/MSD) sample analysis recovery criteria for inorganics require that the MS/MSD recovery be within 75% to 125%. Associated sample results with MS/MSD recoveries that were less than 75% to 125% and have recoveries greater than 30% were qualified as estimated (J). The analytes that did not meet MS/MSD recovery criteria and the number of samples qualified due to those deviations are presented in the following table.

Analytes Qualified Due to MS/MSD Recovery Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Metals	Copper	7	J
	Antimony	11	J

MS/MSD sample analysis recovery criteria for inorganics require that the relative percent difference (RPD) between the MS and MSD recoveries be less than the QC acceptance limits specified on the MS/MSD reporting form. The analyte that exceeded the RPD limit and the number of samples qualified due to deviations are presented in the following table.

Analyte Qualified Due to MS/MSD RPD Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Metals	Antimony	7	J

Blank action levels for inorganic analytes detected in the blanks were calculated at five times the blank concentrations (blank action levels were calculated at 10 times the blank concentration for common laboratory contaminants). Detected sample results that were below the blank action level were qualified with a "U." The analytes detected in method/analytical blanks which resulted in qualification of sample data, along with the number of affected samples, are presented in the following table.

Analytes Qualified Due to Blank Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Metals	Antimony	9	U
	Cadmium	10	U
	Selenium	7	U
	Silver	11	U

Field duplicate samples were analyzed to evaluate the overall precision of laboratory and field procedures. The relative percent difference (RPD) between duplicate samples is required to be less than 50% for soil sample values greater than five times the contract required detection limit (CRDL). Sample results for analytes that exceed these limits are qualified as estimated (J). The inorganic analytes that did not meet field duplicate RPD requirements are presented in the following table.

Analytes Qualified Due to Field Duplicate Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Metals	Calcium	4	J
	Mercury	4	J

5.0 Overall Data Usability

This section summarizes the analytical data in terms of its completeness and usability for site characterization purposes. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. The percent usability calculation included analyses evaluated under both the Tier I and Tier II data validation reviews. Data completeness with respect to usability was calculated separately for inorganic and each of the organic analysis. The percent usability calculation also includes quality control samples collected to aid in the evaluation of data usability. Therefore, field/equipment blank, trip blank, and field duplicate data determined to be unusable as a result of the validation process are represented in the percent usability value tabulated in the following table.

Data Usability

Parameter	Percent Usability	Rejected Data
PCBs	100	None
Metals	100	None

The data package completeness, as determined from the Tier I data review, was used in combination with the data quality deviations identified during the Tier II data review to determine overall data quality. As specified in the FSP/QAPP, the overall precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters determined from the Tier I and Tier II data reviews were used as indicators of overall data quality. These parameters were assessed through an evaluation of the results of the field and laboratory QA/QC sample analyses to provide a measure of compliance of the analytical data with the Data Quality Objectives (DQOs) specified in the FSP/QAPP. Therefore, the following sections present summaries of the PARCC parameters assessment with regard to the DQOs specified in the FSP/QAPP.

5.1 Precision

Precision measures the reproducibility of measurements under a given set of conditions. Specifically, it is a quantitative measure of the variability of a group of measurements compared to their average value. For this investigation, precision was defined as the RPD between duplicate sample results. The duplicate samples used to evaluate precision included field duplicates and MS/MSD samples. For this analytical program, 1.6% of the data required qualification due to field duplicate RPD deviations and 1.4% of the data required qualification due to MS/MSD RPD deviations.

5.2 Accuracy

Accuracy measures the bias in an analytical system or the degree of agreement of a measurement with a known reference value. For this investigation, accuracy was defined as the percent recovery of QA/QC samples that were spiked with a known concentration of an analyte or compound of interest. The QA/QC samples used to evaluate analytical accuracy included instrument calibration, laboratory control samples (LCSs), MS/MSD samples, and CRDL samples. For this analytical program 3.5% of the data required qualification due to MS/MSD recovery deviations and 7.0% of the data required qualification due to CRDL recovery deviations. None of the data required qualification due to instrument calibration deviations or LCS recovery deviations.

5.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected. This parameter has been addressed by collecting samples at locations specified in MDEP-approved work plans, and by following the procedures for sample collection/analyses that were described in the FSP/QAPP. Additionally, the analytical program used procedures consistent with USEPA-approved analytical methodology. A QA/QC parameter that is an indicator of the representativeness of a sample is holding time. Holding time criteria are established to maintain the samples in a state that is representative of the in-situ field conditions before analysis. For this analytical program, none of the data required qualification due to holding time deviations.

5.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. This goal was achieved through the use of the standardized techniques for sample collection and analysis presented in the FSP/QAPP. The USEPA SW-846[1] analytical methods presented in the FSP/QAPP are updated on occasion by the USEPA to benefit from recent technological advancements in analytical chemistry and instrumentation. In most cases, the method upgrades include the incorporation of new technology that improves the sensitivity and stability of the instrumentation or allows the laboratory to increase throughput without hindering accuracy and precision. Overall, the analytical methods for this investigation have remained consistent in their general approach through continued use of the basic analytical techniques (e.g., sample extraction/preparation, instrument calibration, QA/QC procedures). Through this use of consistent base analytical procedures and by requiring that updated procedures meet the QA/QC criteria specified in the FSP/QAPP, the analytical data from past, present, and future sampling events will be comparable to allow for qualitative and quantitative assessment of site conditions.

5.5 Completeness

Completeness is defined as the percentage of measurements that are judged to be valid or usable to meet the prescribed DQOs. The completeness criterion is essentially the same for all data uses -- the generation of a sufficient amount of valid data. This analytical data set had an overall usability of 100%.

[1] Test Methods for evaluating Solid Waste, SW-846, USEPA, Final Update III, December 1996.

TABLE B - 1
ANALYTICAL DATA VALIDATION SUMMARY
SILVER LAKE PRE-DESIGN INVESTIGATION - 2007 SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
PCBs											
G135-395	RA-3-SB-4-S (0 - 1)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-4-S (1 - 3)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-5-N (0 - 1)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-5-N (1 - 3)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-6-S (0 - 1)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-6-S (1 - 3)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-7-N (0 - 1)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-7-N (1 - 3)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-8-S (0 - 1)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-8-S (1 - 3)	5/1/2007	Soil	Tier II	No						
G135-395	SL-5-07-DUP-2 (1 - 3)	5/1/2007	Soil	Tier II	No						RA-3-SB-5-N
Metals											
G135-346	DUP-001 (3 - 5)	3/14/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.46)	I9-9-17-SB-2-S
						Antimony	MS/MSD %R	62.8%, 63.8%	75% to 125%	ND(4.46) J	
						Beryllium	CRDL Standard %R	170.0%	80% to 120%	ND(1.12) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.12) J	
						Cadmium	Method Blank	-	-	ND(1.12)	
						Calcium	Field Duplicate RPD (Soil)	68.6%	<50%	31900 J	
						Mercury	Field Duplicate RPD (Soil)	71.0%	<50%	0.129 J	
						Selenium	CRDL Standard %R	77.4%	80% to 120%	ND(2.23) J	
						Selenium	Method Blank	-	-	ND(2.23)	
						Silver	Method Blank	-	-	ND(1.12)	
G135-346	I9-10-8-SB-16 (3 - 5)	3/14/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(5.30)	
						Antimony	MS/MSD %R	62.8%, 63.8%	75% to 125%	ND(5.30) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.75) J	
						Cadmium	Method Blank	-	-	ND(1.75)	
						Calcium	Field Duplicate RPD (Soil)	68.6%	<50%	3560 J	
						Mercury	Field Duplicate RPD (Soil)	71.0%	<50%	0.205 J	
						Selenium	CRDL Standard %R	77.4%	80% to 120%	ND(2.68) J	
						Selenium	Method Blank	-	-	ND(2.68)	
						Silver	Method Blank	-	-	ND(1.32)	
G135-346	I9-10-8-SB-16-S (3 - 5)	3/14/2007	Soil	Tier II	Yes	Antimony	MS/MSD %R	62.8%, 63.8%	75% to 125%	13.3 J	
						Beryllium	CRDL Standard %R	170.0%	80% to 120%	2.57 J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	2.81 J	
						Calcium	Field Duplicate RPD (Soil)	68.6%	<50%	20300 J	
						Mercury	Field Duplicate RPD (Soil)	71.0%	<50%	0.557 J	
						Selenium	CRDL Standard %R	77.4%	80% to 120%	ND(2.93) J	
						Selenium	Method Blank	-	-	ND(2.93)	
						Silver	Method Blank	-	-	ND(1.47)	
G135-346	I9-9-17-SB-2-S (3 - 5)	3/14/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.27)	
						Antimony	MS/MSD %R	62.8%, 63.8%	75% to 125%	ND(4.27) J	
						Beryllium	CRDL Standard %R	170.0%	80% to 120%	1.41 J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.07) J	
						Cadmium	Method Blank	-	-	ND(1.07)	
						Calcium	Field Duplicate RPD (Soil)	68.6%	<50%	15600 J	
						Mercury	Field Duplicate RPD (Soil)	71.0%	<50%	0.271 J	
						Selenium	CRDL Standard %R	77.4%	80% to 120%	ND(2.14) J	
						Silver	Method Blank	-	-	ND(1.07)	
G135-346	RB031407-1 (0 - 0)	3/14/2007	Water	Tier II	Yes	Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(0.0100) J	
						Selenium	CRDL Standard %R	77.4%	80% to 120%	ND(0.0200) J	
G135-347	DUP-002 (0 - 1)	3/15/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.59)	I9-10-11-SB-16-SW
						Antimony	MS/MSD %R	62.0%, 54.5%	75% to 125%	ND(4.59) J	
						Antimony	MS/MSD RPD	27.2%	<20%	ND(4.59) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.15) J	
						Cadmium	Method Blank	-	-	ND(1.15)	
						Copper	MS %R	59.3%	75% to 125%	17.7 J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(2.29) J	
						Silver	CRDL Standard %R	122.0%	80% to 120%	ND(1.15) J	
						Silver	Method Blank	-	-	ND(1.15)	
G135-347	I9-10-11-SB-16-NW (0 - 1)	3/15/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.55)	
						Antimony	MS/MSD %R	62.0%, 54.5%	75% to 125%	ND(4.55) J	
						Antimony	MS/MSD RPD	27.2%	<20%	ND(4.55) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.14) J	
						Cadmium	Method Blank	-	-	ND(1.14)	

TABLE B - 1
ANALYTICAL DATA VALIDATION SUMMARY
SILVER LAKE PRE-DESIGN INVESTIGATION - 2007 SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Metals continued											
G135-347	I9-10-11-SB-16-NW (0 - 1)	3/15/2007	Soil	Tier II	Yes	Copper	MS %R	59.3%	75% to 125%	32.5 J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(2.28) J	
						Selenium	Method Blank	-	-	ND(2.28)	
						Silver	CRDL Standard %R	122.0%	80% to 120%	ND(1.14) J	
						Silver	Method Blank	-	-	ND(1.14)	
G135-347	I9-10-11-SB-16-NW (1 - 3)	3/15/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.43)	
						Antimony	MS/MSD %R	62.0%, 54.5%	75% to 125%	ND(4.43) J	
						Antimony	MS/MSD RPD	27.2%	<20%	ND(4.43) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.11) J	
						Cadmium	Method Blank	-	-	ND(1.11)	
						Copper	MS %R	59.3%	75% to 125%	199 J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(2.21) J	
						Selenium	Method Blank	-	-	ND(2.21)	
						Silver	CRDL Standard %R	122.0%	80% to 120%	ND(1.11) J	
						Silver	Method Blank	-	-	ND(1.11)	
G135-347	I9-10-11-SB-16-SW (0 - 1)	3/15/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.57)	
						Antimony	MS/MSD %R	62.0%, 54.5%	75% to 125%	ND(4.57) J	
						Antimony	MS/MSD RPD	27.2%	<20%	ND(4.57) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.14) J	
						Cadmium	Method Blank	-	-	ND(1.14)	
						Copper	MS %R	59.3%	75% to 125%	19.2 J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(2.29) J	
						Silver	CRDL Standard %R	122.0%	80% to 120%	ND(1.14) J	
						Silver	Method Blank	-	-	ND(1.14)	
G135-347	I9-10-11-SB-16-SW (1 - 3)	3/15/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.58)	
						Antimony	MS/MSD %R	62.0%, 54.5%	75% to 125%	ND(4.58) J	
						Antimony	MS/MSD RPD	27.2%	<20%	ND(4.58) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.15) J	
						Cadmium	Method Blank	-	-	ND(1.15)	
						Copper	MS %R	59.3%	75% to 125%	96.2 J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(2.29) J	
						Silver	CRDL Standard %R	122.0%	80% to 120%	ND(1.15) J	
						Silver	Method Blank	-	-	ND(1.15)	
G135-347	I9-9-24-SB-2-SES-1 (9 - 11)	3/15/2007	Soil	Tier II	Yes	Antimony	MS/MSD %R	62.0%, 54.5%	75% to 125%	84.6 J	
						Antimony	MS/MSD RPD	27.2%	<20%	84.6 J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.64) J	
						Cadmium	Method Blank	-	-	ND(1.64)	
						Copper	MS %R	59.3%	75% to 125%	87.5 J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(3.29) J	
						Selenium	Method Blank	-	-	ND(3.29)	
						Silver	CRDL Standard %R	122.0%	80% to 120%	ND(1.64) J	
						Silver	Method Blank	-	-	ND(1.64)	
G135-347	I9-9-24-SB-2-SES-2 (9 - 11)	3/15/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(5.00)	
						Antimony	MS/MSD %R	62.0%, 54.5%	75% to 125%	ND(5.00) J	
						Antimony	MS/MSD RPD	27.2%	<20%	ND(5.00) J	
						Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(1.25) J	
						Cadmium	Method Blank	-	-	ND(1.25)	
						Copper	MS %R	59.3%	75% to 125%	92.9 J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(2.50) J	
						Selenium	Method Blank	-	-	ND(2.50)	
						Silver	CRDL Standard %R	122.0%	80% to 120%	ND(1.25) J	
						Silver	Method Blank	-	-	ND(1.25)	
G135-347	RB031507-1 (0 - 0)	3/15/2007	Water	Tier II	Yes	Cadmium	CRDL Standard %R	45.8%	80% to 120%	ND(0.0100) J	
						Selenium	CRDL Standard %R	77.2%	80% to 120%	ND(0.0200) J	
G135-392	I9-10-11-SB-16-NW (3 - 5)	3/15/2007	Soil	Tier I	No						
G135-392	I9-10-11-SB-16-NW (5 - 7)	3/15/2007	Soil	Tier I	No						
G135-392	I9-10-11-SB-16-SW (3 - 5)	3/15/2007	Soil	Tier I	No						
G135-392	I9-10-8-SB-16-S (5 - 7)	3/14/2007	Soil	Tier I	No						
G135-392	I9-10-8-SB-16-SS (3 - 5)	3/14/2007	Soil	Tier I	No						
G135-395	I9-10-8-SB-16-E (0 - 1)	5/1/2007	Soil	Tier II	No						
G135-395	I9-10-8-SB-16-E (1 - 3)	5/1/2007	Soil	Tier II	No						
G135-395	I9-10-8-SB-16-E (3 - 5)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-6-S (0 - 1)	5/1/2007	Soil	Tier II	No						
G135-395	RA-3-SB-8-S (1 - 3)	5/1/2007	Soil	Tier II	No						
G135-395	SL-5-07-DUP-1 (0 - 1)	5/1/2007	Soil	Tier II	No						I9-10-8-SB-16-E
G135-396	RA-3-SB-3 (1 - 3)	5/4/2007	Soil	Tier I	No						

Appendix C

Summary of PCB Analytical Data for All Samples Used in Evaluations

TABLE C-1
SUMMARY OF PRE-DESIGN PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-1							
I9-9-9-SS-1	0-1	6/24/2003	ND(0.041)	ND(0.041)	0.25	0.14	0.39
I9-9-9-SS-2	0-1	6/24/2003	ND(0.046)	ND(0.046)	0.25	0.22	0.47
I9-9-9-SS-3	0-1	6/24/2003	ND(26)	ND(26)	85	32	117
I9-9-1-SB-1	0-1	6/18/2003	ND(0.036)	ND(0.036)	0.022 J	ND(0.036)	0.022 J
	1-3	6/18/2003	ND(0.035) [ND(0.035)]	ND(0.035) [ND(0.035)]	ND(0.035) [ND(0.035)]	ND(0.035) [ND(0.035)]	ND(0.035) [ND(0.035)]
	3-5	6/18/2003	ND(0.040)	ND(0.040)	0.40	0.13	0.53
	5-7	6/18/2003	ND(0.045)	ND(0.045)	0.17	0.050	0.22
	7-9	8/7/2003	ND(0.063)	ND(0.063)	ND(0.063)	ND(0.063)	ND(0.063)
I9-9-1-SB-2	7-9	6/17/2003	ND(0.046)	ND(0.046)	0.027 J	0.016 J	0.043 J
I9-9-1-SB-3	0-1	6/17/2003	ND(0.036)	ND(0.036)	0.020 J	0.018 J	0.038 J
	1-3	6/17/2003	ND(0.038)	ND(0.038)	0.21	0.10	0.31
	3-5	6/17/2003	ND(0.043)	ND(0.043)	0.33	0.17	0.50
	5-7	6/17/2003	ND(0.049)	ND(0.049)	ND(0.049)	ND(0.049)	ND(0.049)
I9-9-1-SB-4	1-3	6/17/2003	ND(28)	ND(28)	65	ND(28)	65
	3-5	6/17/2003	ND(0.076)	ND(0.076)	0.64	0.27	0.91
	5-7	6/17/2003	ND(0.081)	ND(0.081)	0.058 J	ND(0.081)	0.058 J
I9-9-1-SB-5	0-1	6/17/2003	ND(3.1)	ND(3.1)	5.9	3.3	9.2
	1-3	6/17/2003	ND(1.1)	ND(1.1)	4.3	2.5	6.8
	3-5	6/17/2003	ND(0.086)	ND(0.086)	0.44	0.13	0.57
	5-7	6/17/2003	ND(0.074)	ND(0.074)	ND(0.074)	ND(0.074)	ND(0.074)
I9-9-1-SB-6	8-10	2/5/2004	ND(0.056)	ND(0.056)	ND(0.056)	ND(0.056)	ND(0.056)
I9-9-1-SS-1	0-1	6/17/2003	ND(30)	ND(30)	43	46	89
Parcel I9-9-9							
I9-9-9-SB-1	0-1	6/23/2003	ND(0.47)	ND(0.47)	9.2	7.5	16.7
	1-3	6/23/2003	ND(3.2)	ND(3.2)	38	22	60
	3-5	6/23/2003	ND(0.051)	ND(0.051)	1.4	0.63	2.03
	5-7	6/23/2003	ND(0.22)	ND(0.22)	2.2	1.6	3.8
	7-9	6/23/2003	ND(3.5) J	ND(3.5) J	9.7 J	ND(3.5) J	9.7 J
	9-11	6/23/2003	ND(0.045) J	ND(0.045) J	1.0 J	0.23 J	1.23 J
	11-13	1/30/2004	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
	13-15	10/26/2005	ND(0.045)	ND(0.045)	ND(0.045)	ND(0.045)	ND(0.045)
I9-9-9-SB-2	0-1	6/23/2003	ND(0.40)	ND(0.40)	12	ND(0.40)	12
	1-3	6/23/2003	ND(0.18)	ND(0.18)	1.8	ND(0.18)	1.8
	3-5	6/23/2003	ND(0.24)	ND(0.24)	5.9	ND(0.24)	5.9
	5-7	6/23/2003	ND(2.3)	ND(2.3)	25	6.4	31.4
	7-9	6/23/2003	ND(3.2) J	ND(3.2) J	29 J	16 J	45 J
	9-11	6/23/2003	ND(0.061) J	ND(0.061) J	0.042 J	0.031 J	0.073 J
I9-9-9-SB-3	0-1	6/20/2003	ND(5.3)	ND(5.3)	47	10	57
	1-3	6/20/2003	ND(5.0)	ND(5.0)	36	ND(5.0)	36
	3-5	6/20/2003	ND(2.8)	ND(2.8)	6.5	ND(2.8)	6.5
	5-7	6/20/2003	ND(0.044)	ND(0.044)	0.049	0.050	0.099
	7-9	6/20/2003	ND(0.044) J [ND(0.045)]	ND(0.044) J [ND(0.045)]	0.24 J [0.52 J]	0.13 J [0.24 J]	0.37 J [0.76 J]
	9-11	6/20/2003	ND(0.044) J	ND(0.044) J	0.073 J	ND(0.044) J	0.073 J
I9-9-9-SB-4	0-1	1/30/2004	ND(0.040)	ND(0.040)	0.15	0.21	0.36
	1-3	1/30/2004	ND(0.038)	ND(0.038)	0.088	0.032 J	0.12
	3-5	1/30/2004	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)
	5-7	1/30/2004	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
	7-9	1/30/2004	ND(0.069)	ND(0.069)	ND(0.069)	ND(0.069)	ND(0.069)
	9-11	1/30/2004	ND(0.051)	ND(0.051)	ND(0.051)	ND(0.051)	ND(0.051)
I9-9-9-SB-5	0-1	2/3/2004	ND(0.042)	ND(0.042)	0.39	0.23	0.62
	1-3	2/3/2004	ND(0.037)	ND(0.037)	0.17	0.071	0.241
	3-5	2/3/2004	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
	5-7	2/3/2004	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
	7-9	2/3/2004	ND(0.061)	ND(0.061)	ND(0.061)	ND(0.061)	ND(0.061)
	9-11	2/3/2004	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)
I9-9-9-SB-8	0-1	1/30/2004	ND(0.044)	ND(0.044)	0.21	0.14	0.35
	1-3	1/30/2004	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)
	3-5	1/30/2004	ND(0.042) [ND(0.045)]	ND(0.042) [ND(0.045)]	ND(0.042) [ND(0.045)]	ND(0.042) [ND(0.045)]	ND(0.042) [ND(0.045)]
	5-7	1/30/2004	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
	7-9	1/30/2004	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
	9-11	1/30/2004	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
Parcel I9-9-17							
I9-9-17-SS-1	0-1	6/25/2003	ND(0.038)	ND(0.038)	0.13	0.11	0.24
I9-9-17-SS-2	0-1	6/25/2003	ND(0.038) [ND(0.039)]	ND(0.038) [ND(0.039)]	0.60 [0.43]	0.31 [0.22]	0.91 [0.65]
I9-9-17-SS-3	0-1	6/25/2003	ND(0.043)	ND(0.043)	ND(0.043)	0.24	0.24

TABLE C-1
SUMMARY OF PRE-DESIGN PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-17 (continued)							
I9-9-17-SB-1	0-1	6/25/2003	ND(0.042)	ND(0.042)	0.25	0.11	0.36
	1-3	6/25/2003	ND(0.55)	ND(0.55)	4.9	3.4	8.3
	3-5	6/25/2003	ND(0.047)	ND(0.047)	0.69	0.18	0.87
	5-7	6/25/2003	ND(0.045)	ND(0.045)	ND(0.045)	ND(0.045)	ND(0.045)
I9-9-17-SB-2	0-1	6/25/2003	ND(0.040)	ND(0.040)	0.19	0.22	0.41
	1-3	6/25/2003	ND(0.046)	ND(0.046)	0.78	0.76	1.54
	3-5	6/25/2003	ND(0.042)	ND(0.042)	0.24	0.069	0.309
	5-7	6/25/2003	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
I9-9-17-SB-3	0-1	6/25/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.029 J	0.029 J
	1-3	6/25/2003	ND(0.037) [ND(0.038)]	ND(0.037) [ND(0.038)]	0.072 [0.071]	0.051 [0.054]	0.123 [0.125]
	3-5	6/25/2003	ND(0.042)	ND(0.042)	0.045	0.034 J	0.079
Parcel I9-9-18							
I9-9-18-SS-1	0-1	6/25/2003	ND(0.049)	ND(0.049)	1.0	0.68	1.68
I9-9-18-SS-2	0-1	6/25/2003	ND(0.058)	ND(0.058)	2.5	2.6	5.1
I9-9-18-SB-1	0-1	6/25/2003	ND(3.0)	ND(3.0)	12	7.1	19.1
	1-3	6/25/2003	ND(2.7)	ND(2.7)	ND(2.7)	33	33
	3-5	6/25/2003	ND(0.043)	ND(0.043)	0.046	ND(0.043)	0.046
I9-9-18-SB-2	0-1	6/25/2003	ND(0.044)	ND(0.044)	0.94	0.87	1.81
	1-3	6/25/2003	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
	3-5	6/25/2003	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
Parcel I9-9-19							
I9-9-19-SS-1	0-1	2/17/2004	ND(0.047)	ND(0.047)	0.72	0.50	1.22
I9-9-19-SB-1	0-1	2/17/2004	ND(0.053)	ND(0.053)	0.55	0.37	0.92
	1-3	2/17/2004	ND(0.044)	ND(0.044)	0.11	0.042 J	0.152
	3-5	2/17/2004	ND(0.043)	ND(0.043)	ND(0.043)	ND(0.043)	ND(0.043)
I9-9-19-SB-2	0-1	2/17/2004	ND(0.054)	ND(0.054)	0.53	0.59	1.12
	1-3	2/17/2004	ND(0.053) [ND(0.049)]	ND(0.053) [ND(0.049)]	0.27 [0.31]	0.13 [0.17]	0.40 [0.48]
	3-5	2/17/2004	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
Parcel I9-9-21							
I9-9-21-SS-1	0-1	3/10/2005	ND(0.038)	ND(0.038)	ND(0.038)	1.2	1.2
I9-9-21-SB-1	0-1	6/26/2003	ND(4.2)	ND(4.2)	ND(4.2)	22	22
	1-3	6/26/2003	ND(4.2)	ND(4.2)	ND(4.2)	12	12
I9-9-21-SB-2	0-1	6/26/2003	ND(1.8)	ND(1.8)	ND(1.8)	33	33
	1-3	6/26/2003	ND(0.037)	ND(0.037)	1.5	1.6	3.1
I9-9-21-SB-3	0-1	6/26/2003	ND(0.38)	ND(0.38)	2.4	1.9	4.3
	1-3	6/26/2003	ND(4.0)	ND(4.0)	ND(4.0)	19	19
I9-9-21-SB-4	0-1	6/26/2003	ND(0.22)	ND(0.22)	ND(0.22)	1.9	1.9
	1-3	6/26/2003	ND(0.22)	ND(0.22)	ND(0.22)	2.2	2.2
I9-9-21-SB-5	0-1	6/26/2003	ND(0.036)	ND(0.036)	0.13	0.17	0.30
	1-3	6/26/2003	ND(0.038) [ND(0.037)]	ND(0.038) [ND(0.037)]	0.34 [0.54]	0.19 J [0.32 J]	0.53 [0.86]
I9-9-21-SB-6	0-1	2/19/2004	ND(0.19)	ND(0.19)	1.1	0.62	1.72
	1-3	2/19/2004	ND(0.039)	ND(0.039)	0.17	0.16	0.33
	3-6	2/19/2004	ND(2.0)	ND(2.0)	16	11	27
	6-10	2/19/2004	ND(2.1)	ND(2.1)	21	7.0	28
	10-15	2/19/2004	ND(1.0)	ND(1.0)	15	5.5	20.5
I9-9-21-SB-7	0-1	2/19/2004	ND(0.36)	ND(0.36)	5.8	5.3	11.1
	1-3	2/19/2004	ND(3.7)	ND(3.7)	17	40	57
	3-6	2/19/2004	ND(19)	ND(19)	ND(19)	70	70
	6-10	2/19/2004	ND(21)	ND(21)	280	320	600
	10-15	2/19/2004	ND(0.24)	ND(0.24)	ND(0.24)	4.8	4.8
I9-9-21-SB-8	0-1	2/18/2004	ND(0.038)	ND(0.038)	1.2	0.55	1.75
	1-3	2/18/2004	ND(0.041)	ND(0.041)	0.38	0.53	0.91
	3-6	2/18/2004	ND(0.45) [ND(2.3)]	ND(0.45) [ND(2.3)]	ND(0.45) [ND(2.3)]	4.7 J [13 J]	4.7 J [13 J]
	6-10	2/18/2004	ND(0.21)	ND(0.21)	ND(0.21)	3.6	3.6
	10-15	2/18/2004	ND(0.045)	ND(0.045)	0.26	0.15	0.41
I9-9-21-SB-9	0-1	2/19/2004	ND(0.041)	ND(0.041)	0.31	0.22	0.53
	1-3	2/19/2004	ND(0.041)	ND(0.041)	0.20	0.075	0.275
	3-6	2/19/2004	ND(0.044)	ND(0.044)	0.22	0.053	0.273
	6-10	2/19/2004	ND(0.055)	ND(0.055)	ND(0.055)	ND(0.055)	ND(0.055)
	10-15	2/19/2004	ND(0.054)	ND(0.054)	0.056	ND(0.054)	0.056

TABLE C-1
SUMMARY OF PRE-DESIGN PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-21 (continued)							
I9-9-21-SB-10	0-1	4/13/2004	ND(0.037)	ND(0.037)	0.34	0.89	1.23
	1-3	4/13/2004	ND(0.40)	ND(0.40)	4.1	8.6	12.7
	3-6	4/13/2004	ND(0.20)	ND(0.20)	ND(0.20)	2.2	2.2
	6-10	4/13/2004	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
I9-9-21-SB-11	0-1	4/13/2004	ND(0.18) J	ND(0.18) J	1.0 J	2.1 J	3.1 J
	1-3	4/13/2004	ND(0.040) J	ND(0.040) J	0.41 J	0.17 J	0.58 J
	3-6	4/13/2004	ND(0.038) J	ND(0.038) J	ND(0.038) J	ND(0.038) J	ND(0.038) J
Parcel I9-9-22							
I9-9-22-SB-1	0-1	6/26/2003	ND(0.038)	ND(0.038)	0.15	0.24	0.39
	1-3	6/26/2003	ND(0.041)	ND(0.041)	0.22	0.30	0.52
I9-9-22-SB-2	0-1	6/26/2003	ND(0.044)	ND(0.044)	1.0	0.74	1.74
	1-3	6/26/2003	ND(0.046) [ND(0.046)]	ND(0.046) [ND(0.046)]	0.37 [ND(0.046)]	0.20 J [0.35 J]	0.57 [0.35]
I9-9-22-SB-3	0-1	6/27/2003	ND(0.036)	ND(0.036)	0.84	0.50	1.34
	1-3	6/27/2003	ND(0.046)	ND(0.046)	ND(0.046)	0.29	0.29
I9-9-22-SB-4	0-1	4/12/2004	ND(0.035)	ND(0.035)	0.16	0.17	0.33
	1-3	4/12/2004	ND(0.043)	ND(0.043)	0.052	0.031 J	0.083
	3-6	4/12/2004	ND(0.055)	ND(0.055)	0.25	0.062	0.312
	6-10	4/12/2004	ND(0.050)	ND(0.050)	0.027 J	ND(0.050)	0.027 J
	10-15	4/12/2004	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
I9-9-22-SB-5	0-1	4/12/2004	ND(0.036)	ND(0.036)	0.087	0.10	0.187
	1-3	4/12/2004	ND(0.041)	ND(0.041)	0.018 J	0.041 J	0.059 J
	3-6	4/12/2004	ND(0.054)	ND(0.054)	ND(0.054)	ND(0.054)	ND(0.054)
	6-10	4/12/2004	ND(0.049)	ND(0.049)	ND(0.049)	ND(0.049)	ND(0.049)
	10-15	4/12/2004	ND(0.052)	ND(0.052)	ND(0.052)	ND(0.052)	ND(0.052)
Parcel I9-9-23							
I9-9-23-SB-1	1-3	6/27/2003	ND(0.038)	ND(0.038)	0.14	0.12	0.26
I9-9-23-SB-2	0-1	6/27/2003	ND(0.040)	ND(0.040)	0.10	0.12	0.22
	1-3	6/27/2003	ND(0.038)	ND(0.038)	0.14	0.11	0.25
I9-9-23-SB-3	0-1	6/27/2003	ND(0.035)	ND(0.035)	0.050	0.038	0.088
	1-3	6/27/2003	ND(0.037)	ND(0.037)	0.17	0.18	0.35
Parcel I9-9-24							
I9-9-24-SS-4	0-1	6/27/2003	ND(0.039)	ND(0.039)	0.26	0.29	0.55
I9-9-24-SS-5	0-1	6/27/2003	ND(0.044)	ND(0.044)	0.50	0.52	1.02
I9-9-24-SB-1	0-1	7/1/2003	ND(0.24)	ND(0.24)	2.9	3.4	6.3
	1-3	7/1/2003	ND(0.044)	ND(0.044)	0.47	0.40	0.87
	3-5	7/1/2003	ND(0.043)	ND(0.043)	0.54	0.34	0.88
	5-7	7/1/2003	ND(0.048)	ND(0.048)	0.28	0.21	0.49
	7-9	7/1/2003	ND(0.043)	ND(0.043)	0.95	0.19	1.14
	9-11	7/1/2003	ND(0.60)	ND(0.60)	6.4	0.99	7.39
	11-13	2/1/2005	ND(0.42)	ND(0.42)	2.4	4.0	6.4
	13-15	2/1/2005	ND(0.066)	ND(0.066)	1.5	0.60	2.1
I9-9-24-SB-2	0-1	7/1/2003	ND(0.041)	ND(0.041)	0.15	0.12	0.27
	1-3	7/1/2003	ND(4.1)	ND(4.1)	21	6.2	27.2
	3-5	7/1/2003	ND(0.042)	ND(0.042)	0.17	0.19	0.36
	5-7	7/1/2003	ND(0.042)	ND(0.042)	0.30	0.15	0.45
	7-9	7/1/2003	ND(0.044)	ND(0.044)	0.44	0.19	0.63
	9-11	7/1/2003	ND(0.042)	ND(0.042)	0.22	0.12	0.34
	11-13	4/13/2004	ND(0.048)	ND(0.048)	1.1	0.63	1.73
	13-15	4/13/2004	ND(30) J	ND(30) J	500 J	100 J	600 J
	13-15	2/1/2005	ND(9.2)	ND(9.2)	370	250	620
I9-9-24-SB-3	0-1	2/9/2004	ND(0.052)	ND(0.052)	0.31	0.24	0.55
	1-3	2/9/2004	ND(0.044)	ND(0.044)	1.2	0.77	1.97
	3-5	2/9/2004	ND(0.047)	ND(0.047)	0.42	0.14	0.56
	5-7	2/9/2004	ND(0.053)	ND(0.053)	ND(0.053)	ND(0.053)	ND(0.053)
	7-9	10/18/2005	ND(0.070)	ND(0.070)	0.28	0.14	0.42
	9-11	10/18/2005	ND(0.055)	ND(0.055)	0.36	ND(0.055)	0.36
	11-13	10/18/2005	ND(0.074)	ND(0.074)	ND(0.074)	ND(0.074)	ND(0.074)
	13-15	10/18/2005	ND(0.068)	ND(0.068)	ND(0.068)	ND(0.068)	ND(0.068)
I9-9-24-SB-5	0-1	2/10/2004	ND(0.060)	ND(0.060)	0.14	0.085	0.225
	1-3	2/10/2004	ND(0.055)	ND(0.055)	0.32	0.18	0.50
	3-5	2/10/2004	ND(0.046) [ND(0.043)]	ND(0.046) [ND(0.043)]	0.19 [0.16]	0.086 [0.079]	0.276 [0.239]
	5-7	2/10/2004	ND(0.044)	ND(0.044)	0.033 J	ND(0.044)	0.033 J
I9-9-24-SB-6	0-1	2/10/2004	ND(0.045)	ND(0.045)	0.19	0.20	0.39
	1-3	2/10/2004	ND(0.045)	ND(0.045)	0.58	0.64	1.22

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-24 (continued)							
I9-9-24-SB-7	13-15	2/1/2005	ND(4.0)	ND(4.0)	7.2	6.5	13.7
I9-9-24-SB-8	13-15	2/1/2005	ND(0.057)	ND(0.057)	1.0	0.42	1.42
I9-9-24-SB-9	0-1	10/17/2005	ND(0.43)	ND(0.43)	4.6	1.4	6.0
	1-3	10/17/2005	ND(0.037)	ND(0.037)	0.019 J	ND(0.037)	0.019 J
	3-5	10/17/2005	ND(0.044)	ND(0.044)	0.53	0.26	0.79
	5-7	10/17/2005	ND(0.047)	ND(0.047)	2.2	ND(0.047)	2.2
	7-9	10/17/2005	ND(0.049) [ND(0.057)]	ND(0.049) [ND(0.057)]	0.24 J [0.57 J]	0.24 J [0.51 J]	0.48 J [1.08 J]
	9-11	10/17/2005	ND(0.059)	ND(0.059)	0.34	0.31	0.65
	11-13	10/17/2005	ND(0.062)	ND(0.062)	0.046 J	ND(0.062)	0.046 J
	13-15	10/17/2005	ND(0.081)	ND(0.081)	ND(0.081)	ND(0.081)	ND(0.081)
I9-9-24-SB-10	0-1	6/1/2006	ND(0.036) [ND(0.035)]	ND(0.036) [ND(0.035)]	ND(0.036) [ND(0.035)]	0.041 [0.058]	0.041 [0.058]
Parcel I9-9-25							
I9-9-25-SB-4	0-1	7/3/2003	ND(0.035)	ND(0.035)	0.38	0.25	0.63
	1-3	7/3/2003	ND(0.037)	ND(0.037)	0.72	0.51	1.23
I9-9-25-SB-5	0-1	7/3/2003	ND(0.042)	ND(0.042)	0.31	0.17	0.48
	1-3	7/3/2003	ND(0.041) J	ND(0.041) J	0.033 J	0.047 J	0.080 J
I9-9-25-SB-6	0-1	7/3/2003	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	1-3	7/3/2003	ND(0.035) [ND(0.035)]	ND(0.035) [ND(0.035)]	0.18 J [0.32 J]	0.079 [0.13]	0.259 J [0.45]
I9-9-25-SB-7	0-1	6/27/2003	ND(0.041)	ND(0.041)	0.087	0.069	0.156
	1-3	6/27/2003	ND(0.043)	ND(0.043)	0.052	0.050	0.102
I9-9-25-SB-8	0-1	2/11/2004	ND(0.040)	ND(0.040)	0.70	0.23	0.93
	1-3	2/11/2004	ND(3.6)	ND(3.6)	28	ND(3.6)	28
	3-6	2/11/2004	ND(0.039)	ND(0.039)	1.2	0.44	1.64
	6-10	2/11/2004	ND(0.047)	ND(0.047)	0.23	ND(0.047)	0.23
	10-15	2/11/2004	ND(0.060)	ND(0.060)	0.028 J	ND(0.060)	0.028 J
I9-9-25-SB-9	0-1	2/11/2004	ND(0.037)	ND(0.037)	0.070	0.066	0.136
	1-3	2/11/2004	ND(0.036)	ND(0.036)	0.45	0.23	0.68
	3-6	2/11/2004	ND(0.22)	ND(0.22)	2.1	0.65	2.75
	6-10	2/11/2004	ND(0.043)	ND(0.043)	ND(0.043)	ND(0.043)	ND(0.043)
I9-9-25-SB-10	0-1	4/13/2004	ND(0.038)	ND(0.038)	0.69	0.37	1.06
	1-3	4/13/2004	ND(0.038)	ND(0.038)	1.0	0.53	1.53
	3-6	4/13/2004	ND(0.042) [ND(0.041)]	ND(0.042) [ND(0.041)]	ND(0.042) [ND(0.041)]	ND(0.042) [ND(0.041)]	ND(0.042) [ND(0.041)]
Parcel I9-9-30							
I9-9-30-SB-4	0-1	7/7/2003	ND(0.038)	ND(0.038)	0.31	0.23	0.54
	1-3	7/7/2003	ND(0.039)	ND(0.039)	0.70	0.58	1.28
I9-9-30-SB-5	0-1	7/7/2003	ND(0.035)	ND(0.035)	0.016 J	0.020 J	0.036 J
	1-3	7/7/2003	ND(0.038)	ND(0.038)	0.34	0.27	0.61
I9-9-30-SB-6	0-1	7/7/2003	ND(0.040)	ND(0.040)	0.32	0.28	0.60
	1-3	7/7/2003	ND(0.039)	ND(0.039)	0.79	0.43	1.22
I9-9-30-SB-7	0-1	7/7/2003	ND(0.035)	ND(0.035)	0.081	0.090	0.171
	1-3	7/7/2003	ND(0.036)	ND(0.036)	0.42	0.34	0.76
I9-9-30-SB-8	0-1	2/18/2004	ND(0.038)	ND(0.038)	0.31	0.22	0.53
	1-3	2/18/2004	ND(0.040)	ND(0.040)	1.4	0.97	2.37
	3-6	2/18/2004	ND(0.045)	ND(0.045)	0.54	0.24	0.78
	6-10	2/18/2004	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
I9-9-30-SB-9	0-1	2/18/2004	ND(0.043)	ND(0.043)	0.24	0.17	0.41
	1-3	2/18/2004	ND(0.045)	ND(0.045)	0.73	0.24	0.97
	3-6	2/18/2004	ND(0.038)	ND(0.038)	0.60	0.15	0.75
	6-10	2/18/2004	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)
I9-9-30-SB-10	0-1	2/18/2004	ND(0.038)	ND(0.038)	0.35	0.12	0.47
	1-3	2/18/2004	ND(0.039)	ND(0.039)	0.23	0.071	0.301
	3-6	2/18/2004	ND(0.040)	ND(0.040)	0.11	0.033 J	0.143
	6-10	2/18/2004	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
Parcel I9-9-31							
I9-9-31-SB-1	0-1	7/7/2003	ND(0.035)	ND(0.035)	0.30	0.25	0.55
	1-3	7/7/2003	ND(0.038)	ND(0.038)	0.11	0.056	0.166
I9-9-31-SB-2	0-1	7/7/2003	ND(0.036)	ND(0.036)	0.17	0.081	0.251
	1-3	7/7/2003	ND(0.036)	ND(0.036)	0.23	0.12	0.35
I9-9-31-SB-3	0-1	7/7/2003	ND(0.036)	ND(0.036)	0.32	0.16	0.48
	1-3	7/7/2003	ND(0.036)	ND(0.036)	0.32	0.14	0.46
Parcel I9-9-32							
I9-9-32-SB-1	0-1	7/7/2003	R	R	0.14 J	0.080 J	0.22 J
	1-3	7/7/2003	ND(0.037) [ND(0.036)]	ND(0.037) [ND(0.036)]	ND(0.037) [ND(0.036)]	0.18 [0.22]	0.18 [0.22]
I9-9-32-SB-2	0-1	7/7/2003	ND(0.045)	ND(0.045)	0.20	ND(0.045)	0.20
	1-3	7/7/2003	ND(2.7)	ND(2.7)	42	29	71

TABLE C-1
SUMMARY OF PRE-DESIGN PCB SOIL DATA

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-32 (continued)							
I9-9-32-SB-3	0-1	7/7/2003	ND(0.034)	ND(0.034)	0.098	0.037	0.135
	1-3	7/7/2003	ND(0.035)	ND(0.035)	0.66	0.30	0.96
Parcel I9-9-33							
I9-9-33-SB-1	0-1	7/8/2003	ND(0.035)	ND(0.035)	0.032 J	0.035	0.067
	1-3	7/8/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.076	0.076
I9-9-33-SB-2	0-1	7/8/2003	ND(0.035)	ND(0.035)	0.046	0.046	0.092
	1-3	7/8/2003	ND(0.036)	ND(0.036)	1.6	ND(0.036)	1.6
I9-9-33-SB-3	0-1	7/8/2003	ND(0.036)	ND(0.036)	0.45	0.18	0.63
	1-3	7/8/2003	ND(0.037)	ND(0.037)	1.2	0.86	2.06
I9-9-33-SB-4	0-1	7/7/2003	ND(0.036)	ND(0.036)	0.46	0.36	0.82
	1-3	7/7/2003	ND(0.038)	ND(0.038)	0.69	0.30	0.99
I9-9-33-SB-5	0-1	7/8/2003	ND(0.036)	ND(0.036)	0.94	0.85	1.79
	1-3	7/8/2003	ND(0.036)	ND(0.036)	0.66	0.64	1.3
I9-9-33-SB-6	0-1	7/8/2003	ND(0.035)	ND(0.035)	0.32	0.26	0.58
	1-3	7/8/2003	ND(0.035)	ND(0.035)	0.39	0.34	0.73
I9-9-33-SB-7	0-1	7/7/2003	ND(0.034)	ND(0.034)	0.61	0.52	1.13
	1-3	7/7/2003	ND(0.035)	ND(0.035)	0.84	0.42	1.26
Parcel I9-9-34							
I9-9-34-SB-2	0-1	9/16/2003	ND(7.0)	ND(7.0)	27	27	54
	1-3	9/16/2003	ND(31)	ND(31)	250	120	370
I9-9-34-SB-3	0-1	9/16/2003	ND(0.042)	ND(0.042)	0.42	0.30	0.72
	1-3	9/16/2003	ND(0.037)	ND(0.037)	0.35	ND(0.037)	0.35
I9-9-34-SB-4	0-1	9/16/2003	ND(2.4)	ND(2.4)	34	12	46
	1-3	9/16/2003	ND(0.039)	ND(0.039)	0.13	0.069	0.199
I9-9-34-SB-5	0-1	9/16/2003	ND(0.036)	ND(0.036)	0.20	0.26	0.46
	1-3	9/16/2003	ND(0.036)	ND(0.036)	0.13	0.18	0.31
I9-9-34-SB-6	0-1	9/16/2003	ND(0.054)	ND(0.054)	0.48	0.35	0.83
	1-3	9/16/2003	ND(0.042)	ND(0.042)	0.10	0.091	0.191
I9-9-34-SB-7	0-1	9/16/2003	ND(0.039)	ND(0.039)	0.59	0.15	0.74
	1-3	9/16/2003	ND(0.038)	ND(0.038)	0.14	0.087	0.227
I9-9-34-SB-8	0-1	9/16/2003	ND(0.042)	ND(0.042)	0.83	0.42	1.25
	1-3	9/16/2003	ND(0.22)	ND(0.22)	3.4	1.8	5.2
I9-9-34-SB-9	0-1	9/16/2003	ND(0.039)	ND(0.039)	ND(0.039)	0.090	0.090
	1-3	9/16/2003	ND(0.040) [ND(0.040)]	ND(0.040) [ND(0.040)]	0.37 [0.50]	0.22 [0.28]	0.59 [0.78]
I9-9-34-SB-10	0-1	2/19/2004	ND(0.21)	ND(0.21)	1.2	0.68	1.88
	1-3	2/19/2004	ND(0.039)	ND(0.039)	0.034 J	0.024 J	0.058 J
	3-6	2/19/2004	ND(0.039)	ND(0.039)	0.020 J	ND(0.039)	0.020 J
I9-9-34-SB-11	0-1	2/20/2004	ND(0.040)	ND(0.040)	0.41	0.41	0.82
	1-3	2/20/2004	ND(0.039) [ND(0.038)]	ND(0.039) [ND(0.038)]	0.41 [0.38]	0.13 [0.11]	0.54 [0.49]
	3-6	2/20/2004	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)
Parcel I9-9-201							
I9-9-11-SB-1	0-1	6/24/2003	ND(0.037)	ND(0.037)	ND(0.037)	0.050	0.050
	1-3	6/24/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.062	0.062
I9-9-11-SB-2	0-1	6/24/2003	ND(0.040)	ND(0.040)	0.12	0.13	0.25
	1-3	6/24/2003	ND(0.037)	ND(0.037)	ND(0.037)	0.39	0.39
I9-9-11-SB-3	0-1	6/24/2003	ND(0.043)	ND(0.043)	ND(0.043)	0.56	0.56
	1-3	6/24/2003	ND(0.038)	ND(0.038)	ND(0.038)	0.047	0.047
I9-9-11-SB-4	0-1	6/24/2003	ND(0.037)	ND(0.037)	0.11	0.099	0.209
	1-3	6/24/2003	ND(0.037)	ND(0.037)	0.22	0.12	0.34
I9-9-11-SB-5	0-1	6/24/2003	ND(0.038)	ND(0.038)	0.069	0.058	0.127
	1-3	6/24/2003	ND(0.038) [ND(0.037)]	ND(0.038) [ND(0.037)]	0.064 [0.028 J]	0.064 [0.032 J]	0.128 [0.060 J]
I9-9-11-SB-6	0-1	6/24/2003	ND(0.049)	ND(0.049)	0.66	0.58	1.24
	1-3	6/24/2003	ND(0.28)	ND(0.28)	2.5	1.9	4.4 J
I9-9-11-SB-7	0-1	2/13/2004	ND(0.041)	ND(0.041)	0.056	0.10	0.156
	1-3	2/13/2004	ND(0.038)	ND(0.038)	0.10	0.087	0.187
	3-6	2/13/2004	ND(0.20)	ND(0.20)	3.7	2.1	5.8
	6-10	2/13/2004	R	R	R	R	R
	6-10	3/9/2005	ND(0.050)	ND(0.050)	0.66	0.25	0.91
	10-15	3/9/2005	ND(0.51)	7.9	3.5	1.9	13.3
I9-9-11-SB-8	0-1	2/13/2004	ND(0.042)	ND(0.042)	0.56	0.33	0.89
	1-3	2/13/2004	ND(0.040)	ND(0.040)	0.90	0.26	1.16
	3-6	2/13/2004	ND(0.046)	ND(0.046)	0.31	0.064	0.374
	6-10	2/13/2004	ND(0.057)	ND(0.057)	ND(0.057)	ND(0.057)	ND(0.057)
	10-15	10/14/2005	ND(0.60)	ND(0.60)	6.2	ND(0.60)	6.2

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-201 (continued)							
I9-9-11-SB-9	10-15	6/8/2006	ND(0.059) J	ND(0.059) J	ND(0.059) J	ND(0.059) J	ND(0.059) J
I9-9-101-SB-1	0-1	6/24/2003	ND(0.042)	ND(0.042)	0.050	0.12	0.17
	1-3	6/24/2003	ND(0.042)	ND(0.042)	0.095	0.075	0.17
I9-9-101-SB-2	0-1	6/24/2003	ND(0.037)	ND(0.037)	0.032 J	0.036 J	0.068 J
	1-3	6/24/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.030 J	0.030 J
I9-9-101-SB-3	0-1	6/24/2003	ND(0.039)	ND(0.039)	ND(0.039)	0.065	0.065
	1-3	6/24/2003	ND(0.037)	ND(0.037)	0.085	0.18	0.265
I9-9-101-SB-4	0-1	6/24/2003	ND(0.042)	ND(0.042)	0.53	0.092	0.622
	1-3	6/24/2003	ND(0.039)	ND(0.039)	0.38	0.15	0.53
I9-9-101-SB-5	0-1	6/24/2003	ND(0.041)	ND(0.041)	0.061	0.10	0.161
	1-3	6/24/2003	ND(0.038)	ND(0.038)	0.028 J	0.044	0.072
I9-9-101-SB-6	0-1	6/24/2003	ND(0.040)	ND(0.040)	0.16	0.14	0.30
	1-3	6/24/2003	ND(0.039)	ND(0.039)	0.54	0.14	0.68
Parcel I9-10-8							
I9-10-8-SB-1	1-3	6/13/2003	ND(0.043)	ND(0.043)	ND(0.043)	ND(0.043)	ND(0.043)
	3-5	6/13/2003	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
I9-10-8-SB-2	1-3	6/17/2003	ND(0.93) [ND(2.5)]	ND(0.93) [ND(2.5)]	4.3 J [8.7 J]	1.4 J [2.9 J]	5.7 J [11.6 J]
	3-5	6/17/2003	ND(0.044)	ND(0.044)	0.60	0.33	0.93
	5-7	6/17/2003	ND(2.3)	ND(2.3)	7.3	3.6	10.9
	7-9	8/7/2003	ND(0.098) J [ND(0.16)]	ND(0.098) J [ND(0.16)]	ND(0.098) J [ND(0.16)]	ND(0.098) J [ND(0.16)]	ND(0.098) J [ND(0.16)]
I9-10-8-SB-3	1-3	6/13/2003	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)
	3-5	6/13/2003	ND(0.043)	ND(0.043)	0.055	ND(0.043)	0.055
I9-10-8-SB-4	1-3	6/13/2003	ND(0.049)	ND(0.049)	ND(0.049)	ND(0.049)	ND(0.049)
	3-5	6/13/2003	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
I9-10-8-SB-5	1-3	6/13/2003	ND(0.043)	ND(0.043)	0.089	ND(0.043)	0.089
	3-5	6/13/2003	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)
I9-10-8-SB-6	0-1	6/16/2003	ND(4.9)	ND(4.9)	44	23	67
	1-3	6/16/2003	ND(1.0)	ND(1.0)	4.1	2.3	6.4
	3-5	6/16/2003	ND(0.048)	ND(0.048)	0.16	0.078	0.238
	5-7	6/16/2003	ND(0.072)	ND(0.072)	0.83	0.22	1.05
	7-9	8/7/2003	ND(0.18)	ND(0.18)	ND(0.18)	ND(0.18)	ND(0.18)
I9-10-8-SB-7	0-1	6/16/2003	ND(0.049)	ND(0.049)	1.3	0.69	1.99
	1-3	6/16/2003	ND(5.0)	ND(5.0)	120	45	165
	3-5	6/16/2003	ND(0.042)	ND(0.042)	0.66	0.27	0.93
	5-7	6/16/2003	ND(0.048)	ND(0.048)	ND(0.048)	0.077	0.077
I9-10-8-SB-8	7-9	6/16/2003	ND(0.039)	ND(0.039)	0.10	0.054	0.154
	9-11	6/16/2003	ND(0.091)	ND(0.091)	ND(0.091)	0.060 J	0.060 J
I9-10-8-SB-9	0-1	6/16/2003	ND(8.0) [ND(4.2)]	ND(8.0) [ND(4.2)]	29 J [7.0 J]	25 J [5.8 J]	54 J [12.8 J]
	1-3	6/16/2003	ND(0.047)	ND(0.047)	0.088 J	0.039 J	0.127 J
	3-5	6/16/2003	ND(0.040)	ND(0.040)	0.042	0.038 J	0.080
I9-10-8-SB-10	0-1	2/3/2004	ND(0.058)	ND(0.058)	0.30	0.26	0.56
	1-3	2/3/2004	ND(0.041) [ND(0.046)]	ND(0.041) [ND(0.046)]	0.28 [0.26]	0.12 [0.11]	0.40 [0.37]
	3-5	2/3/2004	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)
	5-7	2/3/2004	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
	7-9	2/3/2004	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)
I9-10-8-SB-11	0-1	2/3/2004	ND(0.041)	ND(0.041)	0.26	0.32	0.58
	1-3	2/3/2004	ND(0.044)	ND(0.044)	0.69	0.43	1.12
	3-5	2/3/2004	ND(0.042)	ND(0.042)	0.31	0.12	0.43
	5-7	2/3/2004	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
	7-9	2/3/2004	ND(0.046)	ND(0.046)	ND(0.046)	ND(0.046)	ND(0.046)
	9-11	4/14/2004	ND(0.044) J	ND(0.044) J	ND(0.044) J	ND(0.044) J	ND(0.044) J
I9-10-8-SB-12	0-1	2/2/2004	ND(0.049)	ND(0.049)	0.31	0.33	0.64
	1-3	2/2/2004	ND(0.036)	ND(0.036)	0.32	0.35	0.67
	3-5	2/2/2004	ND(4.2)	ND(4.2)	14	ND(4.2)	14
	5-7	2/2/2004	ND(4.7)	ND(4.7)	17	16	33
	7-9	4/14/2004	ND(23)	380	100	23 J	503
	9-11	4/14/2004	ND(0.20)	ND(0.20)	2.3	0.46	2.76
	11-13	4/14/2004	ND(0.055)	ND(0.055)	0.42	0.095	0.515
	13-15	4/14/2004	ND(0.073)	ND(0.073)	ND(0.073)	ND(0.073)	ND(0.073)
I9-10-8-SB-13	0-1	1/29/2004	ND(0.043)	ND(0.043)	0.63	0.49	1.12
	1-3	1/29/2004	ND(0.040)	ND(0.040)	0.045	0.048	0.093
	3-5	1/29/2004	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)	ND(0.042)
I9-10-8-SB-14	0-1	1/29/2004	ND(0.040)	ND(0.040)	0.42	0.34	0.76
	1-3	1/29/2004	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)

TABLE C-1
SUMMARY OF PRE-DESIGN PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-10-8 (continued)							
I9-10-8-SB-15	0-1	1/29/2004	ND(0.048)	ND(0.048)	1.3	0.59	1.89
	1-3	1/29/2004	ND(0.040)	ND(0.040)	0.66	0.33	0.99
	3-5	1/29/2004	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)
Parcel I9-10-11							
I9-10-8-SB-16	1-3	3/9/2005	ND(0.51)	20	9.9	4.3	34.2
	3-5	3/9/2005	ND(0.49)	ND(0.49)	3.9	1.7	5.6
	5-7	3/9/2005	ND(0.052)	ND(0.052)	2.5	1.1	3.6
	7-9	3/9/2005	ND(0.046) [ND(0.048)]	ND(0.046) [0.84]	0.17 [0.30]	0.070 [0.15]	0.24 [1.29]
	9-11	3/9/2005	ND(0.092)	ND(0.092)	0.078 J	ND(0.092)	0.078 J
Esther Terrace							
ET-SB-1	0-1	3/8/2005	ND(0.043)	ND(0.043)	0.43	0.36	0.79
	1-3	3/8/2005	ND(0.044)	ND(0.044)	0.025 J	0.022 J	0.047 J
Recreational Area 1							
I9-10-9-SB-1	0-1	6/9/2003	ND(0.040) J [ND(0.041)]	ND(0.040) J [ND(0.041)]	0.21 J [0.12 J]	0.15 J [0.15]	0.36 J [0.27]
	1-3	6/9/2003	ND(0.038)	ND(0.038)	ND(0.038)	0.089	0.089
I9-10-9-SB-2	0-1	6/9/2003	ND(0.041)	ND(0.041)	0.16	0.066	0.226
	1-3	6/9/2003	ND(0.042)	ND(0.042)	0.61	0.18	0.79
RA-1-SB-1	0-1	6/9/2003	ND(0.041)	ND(0.041)	0.047 J	ND(0.041)	0.047
	1-3	6/9/2003	ND(0.044)	ND(0.044)	1.0	ND(0.044)	1.0
RA-1-SB-2	0-1	6/9/2003	ND(0.046)	ND(0.046)	0.14	0.10	0.24
	1-3	6/9/2003	ND(0.039)	ND(0.039)	0.10	0.065	0.165
RA-1-SB-3	0-1	6/9/2003	ND(0.038)	ND(0.038)	0.035 J	ND(0.038)	0.035 J
	1-3	6/9/2003	ND(0.037)	ND(0.037)	0.25	0.077	0.327
RA-1-SB-4	0-1	6/9/2003	ND(0.037)	ND(0.037)	0.69	0.37	1.06
	1-3	6/9/2003	ND(0.040)	ND(0.040)	1.2	0.57	1.77
RA-1-SB-5	0-1	6/9/2003	ND(0.62)	ND(0.62)	ND(0.62)	6.5	6.5
	1-3	6/9/2003	ND(31)	ND(31)	300	66	366
RA-1-SB-6	0-1	6/10/2003	ND(0.039)	ND(0.039)	0.97	0.39	1.36
	1-3	6/10/2003	ND(0.036)	ND(0.036)	0.060 J	0.038	0.098 J
RA-1-SB-7	0-1	6/10/2003	ND(0.052)	ND(0.052)	ND(0.052)	0.35	0.35
	1-3	6/10/2003	ND(2.5) [ND(5.6)]	ND(2.5) [ND(5.6)]	26 [22]	4.1 [4.6 J]	30.1 [26.6]
Recreational Area 2							
RA-2-SB-1	0-1	6/10/2003	ND(0.038)	ND(0.038)	0.31	0.34	0.65
	1-3	6/10/2003	ND(0.037)	ND(0.037)	0.11	0.082	0.192
RA-2-SB-2	1-3	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	1.7	1.7
RA-2-SB-3	0-1	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.060	0.060
	1-3	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.054	0.054
RA-2-SB-4	0-1	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.31	0.31
	1-3	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.36	0.36
RA-2-SB-5	0-1	6/10/2003	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)
	1-3	6/10/2003	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
RA-2-SB-6	0-1	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.095	0.095
	1-3	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.39	0.39
RA-2-SB-7	0-1	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.058	0.058
	1-3	6/10/2003	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)
RA-2-SB-8	1-3	6/10/2003	ND(3.7)	ND(3.7)	ND(3.7)	31	31
RA-2-SB-9	0-1	6/10/2003	ND(0.035)	ND(0.035)	ND(0.035)	0.091	0.091
	1-3	6/10/2003	ND(0.037)	ND(0.037)	ND(0.037)	0.043	0.043
RA-2-SB-10	0-1	6/10/2003	ND(0.038)	ND(0.038)	ND(0.038)	1.3	1.3
	1-3	6/10/2003	ND(0.38)	ND(0.38)	3.4	1.5	4.9
RA-2-SB-11	0-1	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.36	0.36
	1-3	6/10/2003	ND(0.036)	ND(0.036)	ND(0.036)	0.027 J	0.027 J
Recreational Area 3							
RA-3-SB-1	0-1	6/10/2003	ND(0.24)	ND(0.24)	ND(0.24)	2.6	2.6
	1-3	6/10/2003	ND(52)	ND(52)	620	73	693
RA-3-SB-2	0-1	6/10/2003	ND(0.038)	ND(0.038)	0.14 J	0.13 J	0.27 J
	1-3	6/10/2003	ND(0.038) [ND(0.038)]	ND(0.038) [ND(0.038)]	ND(0.038) [ND(0.038)]	ND(0.038) [ND(0.038)]	ND(0.038) [ND(0.038)]
RA-3-SB-3	0-1	6/10/2003	ND(4.6)	ND(4.6)	42	42	84
	1-3	6/10/2003	ND(4.3)	ND(4.3)	32	13	45
RA-3-SB-4	0-1	6/10/2003	ND(0.038)	ND(0.038)	ND(0.038)	0.075	0.075
	1-3	6/10/2003	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
RA-3-SB-4-S	0-1	5/1/2007	ND(0.041)	ND(0.041)	0.51	0.42	0.93
	1-3	5/1/2007	ND(21)	ND(21)	96	30	126
RA-3-SB-5	0-1	6/10/2003	ND(27)	ND(27)	84	17 J	101
	1-3	6/10/2003	ND(59)	ND(59)	290	71	361

TABLE C-1
SUMMARY OF PRE-DESIGN PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Recreational Area 3 (continued)							
RA-3-SB-5-N	0-1	5/1/2007	ND(0.036)	ND(0.036)	0.12	0.054	0.174
	1-3	5/1/2007	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]
RA-3-SB-6	0-1	6/10/2003	ND(0.038)	ND(0.038)	0.29	0.23	0.52
	1-3	6/10/2003	ND(0.037)	ND(0.037)	ND(0.037)	0.029 J	0.029 J
RA-3-SB-6-S	0-1	5/1/2007	ND(450)	ND(450)	610	ND(450)	610
	1-3	5/1/2007	ND(180)	ND(180)	430	ND(180)	430
RA-3-SB-7	0-1	6/11/2003	ND(0.21)	ND(0.21)	1.4	0.90	2.3
	1-3	6/11/2003	ND(25)	ND(25)	760	ND(25)	760
RA-3-SB-7-N	0-1	5/1/2007	ND(0.040)	ND(0.040)	0.054	0.022 J	0.076
	1-3	5/1/2007	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
RA-3-SB-8	0-1	6/11/2003	ND(0.039)	ND(0.039)	0.45	0.23	0.68
	1-3	6/11/2003	ND(0.039)	ND(0.039)	0.028 J	ND(0.039)	0.028 J
RA-3-SB-8-S	0-1	5/1/2007	ND(4.4)	ND(4.4)	ND(4.4)	20	20
	1-3	5/1/2007	ND(46)	ND(46)	ND(46)	210	210
RA-3-SB-9	0-1	6/11/2003	ND(6.8)	ND(6.8)	22	14	36
	1-3	6/11/2003	ND(230)	ND(230)	2600	250	2850
RA-3-SB-10	0-1	6/11/2003	ND(0.038)	ND(0.038)	0.21	0.20	0.41
	1-3	6/11/2003	ND(0.039)	ND(0.039)	0.080	ND(0.039)	0.080
RA-3-SB-11	0-1	6/11/2003	ND(0.040)	ND(0.040)	0.74	0.91	1.65
	1-3	6/11/2003	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	0.14 J [0.38 J]	0.12 [ND(0.037)]	0.26 [0.38]
RA-3-SB-12	0-1	6/11/2003	ND(0.23)	ND(0.23)	1.8	1.9	3.7
	1-3	6/11/2003	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
RA-3-SB-13	0-1	6/11/2003	ND(0.041)	ND(0.041)	ND(0.041)	0.063	0.063
	1-3	6/11/2003	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
RA-3-SB-14	0-1	6/11/2003	ND(0.21)	ND(0.21)	2.4	1.7	4.1
	1-3	6/11/2003	ND(0.40)	ND(0.40)	6.4	1.6	8.0
RA-3-SB-15	0-1	6/11/2003	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	1-3	6/11/2003	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
Recreational Area 4							
SL-BS-0.50-1	0-1	9/15/2006	ND(0.36)	ND(0.36)	3.6	ND(0.36)	3.6
	1-3	9/15/2006	ND(0.033)	ND(0.033)	0.069	ND(0.033)	0.069
SL-BS-0.83-1	0-1	9/15/2006	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	1-3	9/15/2006	ND(0.032)	ND(0.032)	0.076	ND(0.032)	0.076
RA-4-SB-1	0-1	6/11/2003	ND(0.039)	ND(0.039)	0.41	0.31	0.72
	1-3	6/11/2003	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
RA-4-SB-2	0-1	6/11/2003	ND(0.91)	ND(0.91)	24	26	50
	1-3	6/11/2003	ND(0.94)	ND(0.94)	6.0	4.6	10.6
RA-4-SB-3	0-1	6/11/2003	ND(0.18)	ND(0.18)	3.1	1.6	4.7
	1-3	6/11/2003	ND(0.19)	ND(0.19)	1.7	0.74	2.44
RA-4-SB-4	0-1	6/11/2003	ND(0.19)	ND(0.19)	2.2	0.89	3.09
	1-3	6/11/2003	ND(0.036)	ND(0.036)	1.2	0.51	1.71
RA-4-SB-5	0-1	6/11/2003	ND(4.3)	ND(4.3)	12	ND(4.3)	12
	1-3	6/11/2003	ND(3.9) [ND(3.8)]	ND(3.9) [ND(3.8)]	17 [13]	ND(3.9) [ND(3.8)]	17 [13]
RA-4-SB-6	0-1	6/11/2003	ND(0.19)	ND(0.19)	0.73	ND(0.19)	0.73
	1-3	6/11/2003	ND(0.036)	ND(0.036)	0.62	0.85	1.47
RA-4-SB-7	0-1	6/11/2003	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
	1-3	6/11/2003	ND(0.036)	ND(0.036)	0.20	0.16	0.36
RA-4-SB-8	0-1	6/11/2003	ND(130)	ND(130)	2200	ND(130)	2200
	1-3	6/11/2003	ND(27)	ND(27)	170	ND(27)	170
RA-4-SB-9	0-1	6/11/2003	ND(0.041)	ND(0.041)	0.021 J	ND(0.041)	0.021 J
	1-3	6/11/2003	ND(0.039)	ND(0.039)	0.39	0.42	0.81
RA-4-SB-10	0-1	6/11/2003	ND(4.2)	ND(4.2)	12	ND(4.2)	12
	1-3	6/11/2003	ND(0.19)	ND(0.19)	1.1	0.60	1.7
RA-4-SB-11	1-3	6/12/2003	ND(0.037) J	ND(0.037) J	ND(0.037) J	0.11 J	0.11 J
RA-4-SB-12	0-1	6/12/2003	ND(4.5)	ND(4.5)	14	5.5	19.5
	1-3	6/12/2003	ND(4.1)	ND(4.1)	42	16	58
RA-4-SB-13	0-1	6/12/2003	ND(0.20)	ND(0.20)	0.59	0.30	0.89
	1-3	6/12/2003	ND(0.039)	ND(0.039)	0.62	0.30	0.92
Recreational Area 5							
I9-9-34-SB-1	0-1	9/16/2003	ND(0.21)	ND(0.21)	4.2	1.8	6.0
	1-3	9/16/2003	ND(0.035)	ND(0.035)	0.29	ND(0.035)	0.29
RA-5-SB-1	0-1	6/12/2003	ND(0.041) J	ND(0.041) J	0.029 J	0.051 J	0.080 J
	1-3	6/12/2003	ND(0.036) J	ND(0.036) J	ND(0.036) J	0.024 J	0.024 J
RA-5-SB-2	0-1	6/12/2003	ND(21)	ND(21)	830	200	1030
	1-3	6/12/2003	ND(0.82)	ND(0.82)	15	4.0	19

TABLE C-1
SUMMARY OF PRE-DESIGN PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Recreational Area 5 (continued)							
RA-5-SB-3	0-1	6/12/2003	ND(0.21)	ND(0.21)	0.70	0.74	1.44
	1-3	6/12/2003	ND(2.2) [ND(0.85)]	ND(2.2) [ND(0.85)]	5.6 [7.1]	3.9 [4.0]	9.5 [11.1]
RA-5-SB-4	0-1	6/12/2003	ND(20)	ND(20)	70	42	112
	1-3	6/12/2003	ND(0.40)	ND(0.40)	3.6	6.8	10.4
RA-5-SB-5	0-1	6/12/2003	ND(0.042)	ND(0.042)	ND(0.042)	1.2	1.2
	1-3	6/12/2003	ND(0.24)	ND(0.24)	2.7	4.0	6.7
RA-5-SB-6	0-1	6/12/2003	ND(0.20)	ND(0.20)	1.8	1.3	3.1
	1-3	6/12/2003	ND(0.18)	ND(0.18)	2.3	1.0	3.3

Notes:
1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007).
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Field duplicate sample results are presented in brackets.
5. Shaded data indicate results from samples collected below the depth proposed for use in the PCB evaluations of the averaging area in question (designated as the "X" depth), as specified in Table 3 of this Conceptual Work Plan. The data from these samples are included herein for reference and are not included in the PCB evaluation tables in Appendix D for the relevant averaging area.

Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.
R - Data was rejected due to a deficiency in the data generation process.

TABLE C-2
SUMMARY OF EPA PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
				Parcel I9-9-1			
R84A125	R84A125(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R84A125(6-12)	0.5-1	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R84A150	R84A150(0-6)	0-0.5	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R84A150(6-12)	0.5-1	10/13/1998	NA	0.30 J	0.30 J	0.60 J
R84B100	R84B100(0-6)	0-0.5	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R84B100(6-12)	0.5-1	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R84B100(0-2)	0-2	10/28/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R84B100(2-4)	2-4	10/28/1998	NA	0.20 J	0.20 J	0.40 J
	R84B100(4-6)	4-6	10/28/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R84B100(6-8)	6-8	10/28/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R84B125	R84B125(0-6)	0-0.5	10/13/1998	NA	0.20 J	0.20 J	0.40 J
	R84B125(6-12)	0.5-1	10/13/1998	NA	ND(0.60)	0.20 J	0.20 J
R84A165	R84A165(0-6)	0-0.5	10/13/1998	NA	1.1 J	1.6 J	2.7 J
	R84A165(6-12)	0.5-1	10/13/1998	NA	13	5.6 J	19 J
	R84A165(0-2)	0-2	10/28/1998	NA	8.1	3.0 J	11 J
	R84A165(2-4)	2-4	10/28/1998	NA	3.2	1.1 J	4.3 J
	R84A165(4-6)	4-6	10/28/1998	NA	ND(1.7)	ND(1.7)	ND(1.7)
	R84A165(6-8)	6-8	10/28/1998	NA	ND(12)	ND(2.4)	ND(12)
R84A168	R84A168(0-6)	0-0.5	10/13/1998	NA	150 J	160 J	310 J
	R84A168(6-12)	0.5-1	10/13/1998	NA	640 [790]	ND(300) [150]	640 [940]
	R84A168(0-2)	0-2	10/28/1998	NA	220	ND(85)	220
	R84A168(2-4)	2-4	10/28/1998	NA	82 J [200]	18 J [36]	100 J [236]
	R84A168(4-6)	4-6	10/28/1998	NA	51 J	13 J	64 J
	R84A168(6-8)	6-8	10/28/1998	NA	7.0 J	2.0	9.0 J
R84B134	R84B134(0-6)	0-0.5	10/13/1998	NA	0.20 J	0.20 J	0.40 J
	R84B134(6-12)	0.5-1	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R84B144	R84B144(0-6)	0-0.5	10/13/1998	NA	99 J	110 J	210 J
	R84B144(6-12)	0.5-1	10/13/1998	NA	1200 [980]	ND(230) [ND(290)]	1200 [980]
	R84B144(0-2)	0-2	10/28/1998	NA	78 J	110	190 J
	R84B144(2-4)	2-4	10/28/1998	NA	13 J	16	29 J
	R84B144(4-6)	4-6	10/28/1998	NA	13 J	13	26 J
	R84B144(6-8)	6-8	10/28/1998	NA	7.7 J	7.8	16 J
R84C100	R84C100(0-6)	0-0.5	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R84C100(6-12)	0.5-1	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R84C104	R84C104(0-6)	0-0.5	10/13/1998	NA	0.20 J	0.20 J	0.40 J
	R84C104(6-12)	0.5-1	10/13/1998	NA	ND(0.50) [ND(0.090)]	ND(0.50) [ND(0.090)]	ND(0.50) [ND(0.090)]
R84C116	R84C116(0-6)	0-0.5	10/13/1998	NA	0.20 J	0.40 J	0.60 J
	R84C116(6-12)	0.5-1	10/13/1998	NA	ND(7.8)	25 J	25 J
	R84C116(0-2)	0-2	10/28/1998	NA	11 J	19	30 J
	R84C116(2-4)	2-4	10/28/1998	NA	10 J	5.5	16 J
	R84C116(4-6)	4-6	10/28/1998	NA	7.9 J [7.4]	5.4 [5.6]	13 J [13]
	R84C116(6-8)	6-8	10/28/1998	NA	4.7 J	3.2	7.9 J
I9-9-1	SL-BH001030-0-0010	1-3	6/20/2003	ND(0.68)	4.5 J	7.9	12 J
				Parcel I9-9-9			
I9-9-9	SL-BH001031-0-0070	7-9	6/23/2003	ND(1.3)	17	11	28
				Parcel I9-9-34			
I9-9-34	SL-BH001093-0-0010	0-1	9/16/2003	ND(0.085)	0.47 J	0.74	1.2 J
				Parcel I9-9-201			
I9-9-11	SL-BH001034-0-0010	1-3	6/24/2003	ND(0.69)	3.6 J	5.8	9.4 J
I9-9-11	SL-BH001212-0-0030	3-6	2/17/2004	ND(0.022)	0.13 J	0.033	0.16 J
				Parcel I9-10-8			
R83B150	R83B150(0-6)	0-0.5	10/13/1998	NA	ND(0.50)	0.90	0.90
	R83B150(6-12)	0.5-1	10/13/1998	NA	ND(0.50)	1.4	1.4
R83B175	R83B175(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83B175(6-12)	0.5-1	10/13/1998	NA	ND(0.50)	0.90	0.90
R83B200	R83B200(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	0.30 J	0.30 J
	R83B200(6-12)	0.5-1	10/13/1998	NA	ND(0.50) [ND(0.11)]	0.40 J [0.22]	0.40 J [0.22]
R83B225	R83B225(0-6)	0-0.5	10/13/1998	NA	ND(0.50) [0.17]	0.20 J [0.16]	0.20 J [0.33]
	R83B225(6-12)	0.5-1	10/13/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
R83B250	R83B250(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	0.30 J	0.30 J
	R83B250(6-12)	0.5-1	10/13/1998	NA	ND(0.60)	0.30 J	0.30 J
R83B275	R83B275(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	0.30 J	0.30 J
	R83B275(6-12)	0.5-1	10/13/1998	NA	0.30 J	0.20 J	0.50 J
R83B300	R83B300(0-6)	0-0.5	10/13/1998	NA	0.30 J	0.30 J	0.60 J
	R83B300(6-12)	0.5-1	10/13/1998	NA	0.40 J	0.30 J	0.70 J
R83B325	R83B325(0-6)	0-0.5	10/13/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R83B325(6-12)	0.5-1	10/13/1998	NA	0.30 J	0.40 J	0.70 J

TABLE C-2
SUMMARY OF EPA PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-10-8 (continued)							
R83B350	R83B350(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	1.4	1.4
	R83B350(6-12)	0.5-1	10/13/1998	NA	ND(1.3)	2.6	2.6
	R83B350(0-2)	0-2	10/29/1998	NA	0.30 J	1.2	1.2 J
	R83B350(2-4)	2-4	10/29/1998	NA	ND(0.80)	ND(0.80)	ND(0.80)
	R83B350(4-6)	4-6	10/29/1998	NA	ND(0.80) [ND(8.1)]	ND(0.80) [ND(1.6)]	ND(0.80) [ND(8.1)]
	R83B350(6-8)	6-8	10/29/1998	NA	24 J [ND(0.17)]	12 [ND(0.17)]	36 J [ND(0.17)]
R83B375	R83B375(0-6)	0-0.5	10/13/1998	NA	0.30 J [0.20 J]	0.40 J [0.30 J]	0.70 J [0.50 J]
	R83B375(6-12)	0.5-1	10/13/1998	NA	1.2 J	1.7	2.9 J
R83B400	R83B400(0-6)	0-0.5	10/14/1998	NA	23	8.0 J	31 J
	R83B400(6-12)	0.5-1	10/14/1998	NA	73	61	130
	R83B400(0-2)	0-2	10/29/1998	NA	32	13	45
	R83B400(2-4)	2-4	10/29/1998	NA	4.4 J	3.0	7.4 J
	R83B400(4-6)	4-6	10/29/1998	NA	1.1 J	0.80 J	1.9 J
	R83B400(6-8)	6-8	10/29/1998	NA	1.2	0.80	2.0
R83B425	R83B425(0-6)	0-0.5	10/14/1998	NA	3.6 [6.5]	1.5 J [6.4]	5.1 J [12]
	R83B425(6-12)	0.5-1	10/14/1998	NA	50	48	98
	R83B425(0-2)	0-2	10/29/1998	NA	ND(190)	110	110
	R83B425(2-4)	2-4	10/29/1998	NA	ND(86) [ND(36)]	48 [130]	48 [130]
	R83B425(4-6)	4-6	10/29/1998	NA	ND(99)	63	63
	R83B425(6-8)	6-8	10/29/1998	NA	ND(32)	22	22
R83B450	R83B450(0-6)	0-0.5	10/14/1998	NA	0.80	3.4 J	4.2 J
	R83B450(6-12)	0.5-1	10/14/1998	NA	ND(2.3)	0.60 J	0.60 J
R83B475	R83B475(0-6)	0-0.5	10/14/1998	NA	ND(0.70)	0.50 J	0.50 J
	R83B475(6-12)	0.5-1	10/14/1998	NA	ND(0.70)	ND(0.70)	ND(0.70)
	R83B475(0-2)	0-2	10/29/1998	NA	ND(7.9)	13	13
	R83B475(2-4)	2-4	10/29/1998	NA	ND(190)	250	250
	R83B475(4-6)	4-6	10/29/1998	NA	ND(580)	350	350
	R83B475(6-8)	6-8	10/29/1998	NA	ND(51)	50	50
R83C150	R83C150(0-6)	0-0.5	10/14/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C150(6-12)	0.5-1	10/14/1998	NA	ND(0.50)	0.20 J	0.20 J
R83C175	R83C175(0-6)	0-0.5	10/14/1998	NA	ND(0.50)	0.30 J	0.30 J
	R83C175(6-12)	0.5-1	10/14/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C175(0-2)	0-2	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C175(2-4)	2-4	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C175(4-6)	4-6	10/30/1998	NA	ND(0.60) [ND(0.12)]	ND(0.60) [ND(0.12)]	ND(0.60) [ND(0.12)]
	R83C175(6-8)	6-8	10/30/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R83C200	R83C200(0-6)	0-0.5	10/14/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C200(6-12)	0.5-1	10/14/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
R83C225	R83C225(0-6)	0-0.5	10/14/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C225(6-12)	0.5-1	10/14/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R83C250	R83C250(0-6)	0-0.5	10/14/1998	NA	ND(0.60)	0.20 J	0.20 J
	R83C250(6-12)	0.5-1	10/14/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
R83C275	R83C275(0-6)	0-0.5	10/14/1998	NA	ND(0.60)	0.30 J	0.30 J
	R83C275(6-12)	0.5-1	10/14/1998	NA	ND(0.60)	0.30 J	0.30 J
	R83C275(0-2)	0-2	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C275(2-4)	2-4	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C275(4-6)	4-6	10/30/1998	NA	ND(1.0)	ND(1.0)	ND(1.0)
	R83C275(6-8)	6-8	10/30/1998	NA	ND(1.1) [ND(0.21)]	ND(1.1) [ND(0.21)]	ND(1.1) [ND(0.21)]
R83C300	R83C300(0-6)	0-0.5	10/14/1998	NA	0.30 J [ND(2.2)]	0.40 J [ND(1.3)]	0.70 J [ND(2.2)]
	R83C300(6-12)	0.5-1	10/14/1998	NA	0.40 J [0.36]	0.50 J [0.37]	0.90 J [0.73]
R83C325	R83C325(0-6)	0-0.5	10/14/1998	NA	ND(0.70)	1.9 J	1.9 J
	R83C325(6-12)	0.5-1	10/14/1998	NA	ND(0.70)	1.6 J	1.6 J
R83C328	R83C328(0-6)	0-0.5	10/14/1998	NA	0.80	2.0 J	2.8 J
	R83C328(6-12)	0.5-1	10/14/1998	NA	0.70 [0.74]	1.6 J [0.81]	2.3 J [1.6]
R83C332	R83C332(0-6)	0-0.5	10/14/1998	NA	ND(11)	11 J	22 J
	R83C332(6-12)	0.5-1	10/14/1998	NA	ND(1.5)	3.2 J	3.2 J
	R83C332(0-2)	0-2	10/29/1998	NA	2.0 J	6.4	8.4 J
	R83C332(2-4)	2-4	10/29/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83C332(4-6)	4-6	10/29/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R83C332(6-8)	6-8	10/29/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R83D150	R83D150(0-6)	0-0.5	10/14/1998	NA	0.30 J	0.50 J	0.80 J
	R83D150(6-12)	0.5-1	10/14/1998	NA	0.30 J [0.30]	0.50 J [0.44]	0.80 J [0.74]
R83D175	R83D175(0-6)	0-0.5	10/14/1998	NA	0.30 J	0.40 J	0.70 J
	R83D175(6-12)	0.5-1	10/14/1998	NA	0.30 J	0.50 J	0.80 J
R83D200	R83D200(0-6)	0-0.5	10/14/1998	NA	0.30 J	0.40 J	0.70 J
	R83D200(6-12)	0.5-1	10/14/1998	NA	0.70	0.50 J	1.2 J

TABLE C-2
SUMMARY OF EPA PCB SOIL DATA

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-10-8 (continued)							
R83D225	R83D225(0-6)	0-0.5	10/14/1998	NA	1.5	0.90	2.4
	R83D225(6-12)	0.5-1	10/14/1998	NA	1.8	1.0	2.8
	R83D225(0-2)	0-2	10/30/1998	NA	1.4	0.50 J	1.9 J
	R83D225(2-4)	2-4	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83D225(4-6)	4-6	10/30/1998	NA	ND(11)	ND(0.60)	ND(11)
	R83D225(6-8)	6-8	10/30/1998	NA	ND(0.90)	ND(0.90)	ND(0.90)
R83D250	R83D250(0-6)	0-0.5	10/14/1998	NA	0.30 J [ND(0.13)]	0.50 J [0.23]	0.80 J [0.23]
	R83D250(6-12)	0.5-1	10/14/1998	NA	0.20 J	0.30 J	0.50 J
R83D275	R83D275(0-6)	0-0.5	10/14/1998	NA	0.50 J	0.70 J	1.2 J
	R83D275(6-12)	0.5-1	10/14/1998	NA	0.60 J [ND(1.6)]	1.0 J [1.5 J]	1.6 J [1.5 J]
R83D281	R83D281(0-6)	0-0.5	10/14/1998	NA	ND(2.3)	1.2	1.2
	R83D281(6-12)	0.5-1	10/14/1998	NA	ND(2.8)	2.4	2.4
R83D295	R83D295(0-6)	0-0.5	10/14/1998	NA	110 [110]	77 [180]	190 [290]
	R83D295(6-12)	0.5-1	10/14/1998	NA	810	570	1400
	R83D295(0-2)	0-2	10/29/1998	NA	3.3 [3.4]	2.3 [1.5]	5.6 [4.9]
	R83D295(2-4)	2-4	10/29/1998	NA	7.7	4.7	12
	R83D295(4-6)	4-6	10/29/1998	NA	ND(3.7)	3.5	3.5
	R83D295(6-8)	6-8	10/29/1998	NA	1.6 [3.6]	1.3 [2.1]	2.9 [5.7]
R83E150	R83E150(0-6)	0-0.5	10/14/1998	NA	1.8	2.3	4.1
	R83E150(6-12)	0.5-1	10/14/1998	NA	2.8	1.8	4.6
	R83E150(0-2)	0-2	10/30/1998	NA	2.0	1.7	3.7
	R83E150(2-4)	2-4	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83E150(4-6)	4-6	10/30/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R83E150(6-8)	6-8	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
R83E175	R83E175(0-6)	0-0.5	10/14/1998	NA	1.1 [0.58]	1.3 [0.79]	2.4 [1.3]
	R83E175(6-12)	0.5-1	10/14/1998	NA	1.4	1.5	2.9
R83E200	R83E200(0-6)	0-0.5	10/14/1998	NA	0.80 [ND(1.6)]	1.0 [1.4 J]	1.8 [1.4 J]
	R83E200(6-12)	0.5-1	10/14/1998	NA	0.90	1.0	1.9
	R83E200(0-2)	0-2	10/30/1998	NA	0.40 J	ND(0.50)	0.40 J
	R83E200(2-4)	2-4	10/30/1998	NA	ND(0.70)	ND(0.70)	ND(0.70)
	R83E200(4-6)	4-6	10/30/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R83E200(6-8)	6-8	10/30/1998	NA	ND(0.80) [ND(0.80)]	ND(0.80) [ND(0.80)]	ND(0.80) [ND(0.80)]
R83E225	R83E225(0-6)	0-0.5	10/14/1998	NA	0.90	1.1	2.0
	R83E225(6-12)	0.5-1	10/14/1998	NA	0.80 [0.72]	0.90 [0.79]	1.7 [1.5]
	R83E225(0-2)	0-2	10/30/1998	NA	0.60 J [1.2]	0.90 [1.1]	1.5 J [2.3]
	R83E225(2-4)	2-4	10/30/1998	NA	ND(0.70)	ND(0.70)	ND(0.70)
	R83E225(4-6)	4-6	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83E225(6-8)	6-8	10/30/1998	NA	ND(1.0)	ND(1.0)	ND(1.0)
R83E250	R83E250(0-6)	0-0.5	10/14/1998	NA	4.1 J	2.2 J	6.3 J
	R83E250(6-12)	0.5-1	10/14/1998	NA	7.1	2.8 J	9.9 J
R83E254	R83E254(0-6)	0-0.5	10/14/1998	NA	2.6	2.7 J	5.3 J
	R83E254(6-12)	0.5-1	10/14/1998	NA	5.1 J [7.0]	2.2 J [2.3]	7.3 J [9.3]
R83E264	R83E264(0-6)	0-0.5	10/14/1998	NA	99	65	160
	R83E264(6-12)	0.5-1	10/14/1998	NA	ND(110)	88	88
	R83E264(0-2)	0-2	10/29/1998	NA	68	42	110
	R83E264(2-4)	2-4	10/29/1998	NA	16	5.7	22
	R83E264(4-6)	4-6	10/29/1998	NA	15	6.6	22
	R83E264(6-8)	6-8	10/29/1998	NA	ND(25)	ND(2.5)	ND(25)
R83W475	R83W475(0-6)	0-0.5	10/14/1998	NA	0.70 J	1.0 J	1.7 J
	R83W475(6-12)	0.5-1	10/14/1998	NA	10	7.7	18
I9-10-8	SL-BH001208-0-0050	5-7	2/2/2004	ND(1.1)	11 J	4.3	15 J
Parcel I9-10-10							
R83A450	R83A450(0-6)	0-0.5	10/14/1998	NA	ND(0.80)	0.30 J	0.30 J
	R83A450(6-12)	0.5-1	10/14/1998	NA	ND(0.60) [ND(0.50)]	0.50 J [0.60 J]	0.50 J [0.60 J]
	R83A450(0-2)	0-2	10/30/1998	NA	0.40 J	0.70 J	1.1 J
	R83A450(2-4)	2-4	10/30/1998	NA	3.5	3.6	7.1
	R83A450(4-6)	4-6	10/30/1998	NA	1.3	1.4	2.7
	R83A450(6-8)	6-8	10/30/1998	NA	0.40 J	0.40 J	0.80 J
Parcel I9-10-11							
R43A120	R43A120(0-6)	0-0.5	9/21/1998	NA	ND(0.50)	0.40 J	0.40 J
	R43A120(6-12)	0.5-1	9/21/1998	NA	0.30 J [ND(0.11)]	0.50 [0.54]	0.80 J [0.54]
	R43A120(0-2)	0-2	10/26/1998	NA	ND(0.60)	0.20 J	0.20 J
	R43A120(2-4)	2-4	10/26/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R43A120(4-6)	4-6	10/26/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R43A120(6-8)	6-8	10/26/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-10-11 (continued)							
R43B100	R43B100(0-6)	0-0.5	9/21/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R43B100(6-12)	0.5-1	9/21/1998	NA	ND(0.50)	0.30 J	0.30 J
	R43B100(0-2)	0-2	10/26/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R43B100(2-4)	2-4	10/26/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R43B100(4-6)	4-6	10/26/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R43B100(6-8)	6-8	10/26/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R43B120	R43B120(0-6)	0-0.5	9/21/1998	NA	ND(0.60)	0.30 J	0.30 J
	R43B120(6-12)	0.5-1	9/21/1998	NA	0.20 J	0.40 J	0.60 J
R43C120	R43C120(0-6)	0-0.5	9/21/1998	NA	ND(0.60)	0.30 J	0.30 J
	R43C120(6-12)	0.5-1	9/21/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R43C120(0-2)	0-2	10/26/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R43C120(2-4)	2-4	10/26/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R43C120(4-6)	4-6	10/26/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R43C120(6-8)	6-8	10/26/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
R44D120	R44D120(0-6)	0-0.5	10/12/1998	NA	0.20 J	0.50 J	0.70 J
	R44D120(6-12)	0.5-1	10/12/1998	NA	0.30 J [0.17]	0.30 J [0.24]	0.60 J [0.41]
R83A375	R83A375(0-6)	0-0.5	10/13/1998	NA	ND(1.7)	ND(1.0)	ND(1.7)
	R83A375(6-12)	0.5-1	10/13/1998	NA	0.40 J	ND(0.60)	0.40 J
R83A400	R83A400(0-6)	0-0.5	10/14/1998	NA	0.90	1.8	2.7
	R83A400(6-12)	0.5-1	10/14/1998	NA	2.1	2.1	4.2
R83A425	R83A425(0-6)	0-0.5	10/14/1998	NA	0.60 J	1.1	1.7 J
	R83A425(6-12)	0.5-1	10/14/1998	NA	1.3	1.5	2.8
	R83A425(0-2)	0-2	10/30/1998	NA	0.80	1.5	2.3
	R83A425(2-4)	2-4	10/30/1998	NA	0.30 J [0.60 J]	0.30 J [0.60 J]	0.60 J [1.2 J]
	R83A425(4-6)	4-6	10/30/1998	NA	ND(0.80)	ND(0.80)	ND(0.80)
	R83A425(6-8)	6-8	10/30/1998	NA	ND(0.70)	ND(0.70)	ND(0.70)
Parcel I9-10-12							
R83A325	R83A325(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	0.30 J	0.30 J
	R83A325(6-12)	0.5-1	10/13/1998	NA	0.30 J	0.40 J	0.70 J
R83A350	R83A350(0-6)	0-0.5	10/13/1998	NA	0.30 J	0.60 J	0.90 J
	R83A350(6-12)	0.5-1	10/13/1998	NA	0.50 J	0.70	1.2 J
Parcel I9-10-13							
R42A120	R42A120(0-6)	0-0.5	9/21/1998	NA	ND(0.50)	0.20 J	0.20 J
	R42A120(6-12)	0.5-1	9/21/1998	NA	ND(0.50)	0.20 J	0.20 J
	R42A120(0-2)	0-2	10/27/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R42A120(2-4)	2-4	10/27/1998	NA	0.20 J	ND(0.50)	0.20 J
	R42A120(4-6)	4-6	10/27/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R42A120(6-8)	6-8	10/27/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
R42C120	R42C120(0-6)	0-0.5	9/21/1998	NA	ND(0.50) [ND(0.10)]	0.50 J [0.14]	0.50 J [0.14]
	R42C120(6-12)	0.5-1	9/21/1998	NA	ND(0.50)	0.30 J	0.30 J
	R42C120(0-2)	0-2	10/27/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R42C120(2-4)	2-4	10/27/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R42C120(4-6)	4-6	10/27/1998	NA	ND(0.80)	ND(0.80)	ND(0.80)
	R42C120(6-8)	6-8	10/27/1998	NA	ND(0.80)	ND(0.80)	ND(0.80)
R83A275	R83A275(0-6)	0-0.5	10/13/1998	NA	ND(0.70)	0.40 J	0.40 J
	R83A275(6-12)	0.5-1	10/13/1998	NA	0.20 J	0.30 J	0.50 J
R83A300	R83A300(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83A300(6-12)	0.5-1	10/13/1998	NA	ND(0.60)	0.30 J	0.30 J
Parcel I9-10-14							
R83A200	R83A200(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	0.40 J	0.40 J
	R83A200(6-12)	0.5-1	10/13/1998	NA	ND(0.50) [ND(0.11)]	0.40 J [0.41]	0.40 J [0.41]
R83A225	R83A225(0-6)	0-0.5	10/13/1998	NA	ND(0.70)	ND(0.70)	ND(0.70)
	R83A225(6-12)	0.5-1	10/13/1998	NA	ND(0.60)	0.30 J	0.30 J
	R83A225(0-2)	0-2	10/30/1998	NA	ND(0.60)	0.20 J	0.20 J
	R83A225(2-4)	2-4	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83A225(4-6)	4-6	10/30/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
	R83A225(6-8)	6-8	10/30/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
R83A250	R83A250(0-6)	0-0.5	10/13/1998	NA	0.30 J	0.30 J	0.60 J
	R83A250(6-12)	0.5-1	10/13/1998	NA	0.20 J	0.30 J	0.50 J

TABLE C-2
SUMMARY OF EPA PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-10-15							
R83A150	R83A150(0-6)	0-0.5	10/13/1998	NA	ND(0.70)	1.3	1.3
	R83A150(6-12)	0.5-1	10/13/1998	NA	0.40 J	2.8	3.2 J
	R83A150(0-2)	0-2	10/29/1998	NA	ND(0.60)	0.50 J	0.50 J
	R83A150(2-4)	2-4	10/29/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83A150(4-6)	4-6	10/29/1998	NA	ND(0.60)	ND(0.60)	ND(0.60)
	R83A150(6-8)	6-8	10/29/1998	NA	ND(0.50)	ND(0.50)	ND(0.50)
R83A175	R83A175(0-6)	0-0.5	10/13/1998	NA	ND(0.60)	0.70	0.70
	R83A175(6-12)	0.5-1	10/13/1998	NA	ND(0.50)	0.30 J	0.30 J

Notes:
1. Sample collection and analysis performed by United States Environmental Protection Agency (EPA) Subcontractors. Results provided to GE under a Data Exchange Agreement between GE and EPA.
2. NA - Not Analyzed - EPA did not report results for this analyte.
3. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:
J - Estimated Value

TABLE C-3
SUMMARY OF PRIOR (PRE-2003) PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-1							
SLB-8-BB	SLB-8-BB	0-0.5	2/23/1995	NA	0.97	2.2	3.17
SLB-8-TB	SLB-8-TB	0-0.5	10/11/1995	NA	ND(0.044)	ND(0.044)	ND(0.044)
Parcel I9-9-21							
SLB-7-MB	SLB-7-MB	0-0.5	5/24/1994	NA	NA	NA	1.3
		0.5-1	5/24/1994	NA	NA	NA	11
SLB-7-TB	SLB-7-TB	0-0.5	5/24/1994	ND(0.12)	1.2	1.2	2.4
		0.5-1	5/24/1994	ND(0.45)	2.3	1.6	3.9
SLB-7-TB-10	SLB-7-TB-10	0-0.5	10/11/1995	NA	ND(1.0) [ND(0.98)]	3.2 [3.1]	3.2 [3.1]
Parcel I9-9-23							
SLB-5-MB	SLB-5-MB	0-0.5	5/24/1994	ND(0.096) V	ND(0.078) V	0.13	0.13
		0.5-1	5/24/1994	ND(0.024)	ND(0.066) V	0.13	0.13
SLB-5-TB	SLB-5-TB	0-0.5	5/24/1994	ND(0.022)	ND(0.075) V	0.052	0.052
		0.5-1	5/24/1994	ND(0.021)	0.021 J	0.047	0.068
SLB-5-BB	SLB-5-BB	0-0.5	5/24/1994	ND(0.097) V	ND(0.045)	0.070	0.070
		0.5-1	5/24/1994	ND(0.024)	0.043 J	0.069	0.112
Parcel I9-9-24							
I9-9-24	I9-9-24-SS-1	0-0.5	9/24/1997	ND(0.12)	ND(0.12)	ND(0.12)	ND(0.12)
		0.5-1	9/24/1997	ND(0.12)	ND(0.12)	ND(0.12)	ND(0.12)
Parcel I9-9-25							
I9-9-25	I9-9-25-SB-1	0-0.5	11/22/2000	ND(0.042)	0.14	0.15	0.29
		0.5-1	11/22/2000	ND(0.041)	0.16	0.14	0.30
		1-2	11/22/2000	ND(0.040)	0.10	0.096	0.196
		2-4	11/22/2000	ND(0.047)	0.48	0.37	0.85
		4-6	11/22/2000	ND(0.044)	1.1	0.64	1.74
		6-8	11/22/2000	ND(0.25) [ND(0.25)]	4.6 [4.6]	ND(0.25) [ND(0.25)]	4.6 [4.6]
I9-9-25	I9-9-25-SB-2	0-0.5	11/22/2000	ND(0.042)	0.25	0.19	0.44
		0.5-1	11/22/2000	ND(0.039)	0.13	0.095	0.225
		1-2	11/22/2000	ND(0.041)	0.32	0.30	0.62
		2-4	11/22/2000	ND(0.042)	0.96	0.53	1.49
		4-6	11/22/2000	ND(0.043)	0.44	0.18	0.62
		6-8	11/22/2000	ND(0.048)	ND(0.048)	ND(0.048)	ND(0.048)
		8-10	11/22/2000	ND(0.054)	0.040 J	ND(0.054)	0.040 J
		10-12	11/22/2000	ND(0.060)	ND(0.060)	ND(0.060)	ND(0.060)
Parcel I9-9-26							
I9-9-26-SS-1	I9-9-26-SS-1	0-0.5	5/19/1998	ND(0.020)	0.13	0.16	0.29
		0.5-1	5/19/1998	ND(0.019)	0.087	0.18	0.27
		4-6	11/27/2000	ND(0.044)	ND(0.044)	ND(0.044)	ND(0.044)
		12-14	11/27/2000	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
I9-9-26-SB-3	I9-9-26-SB-3	0-0.5	8/19/1998	ND(2.7)	9.6	6.5	16
		0.5-1	8/19/1998	ND(0.040)	ND(0.040)	0.33	0.33
		1-2	8/19/1998	ND(4.6)	32	41	73
		2-4	8/19/1998	ND(0.18)	1.9	1.4	3.3
		4-6	8/19/1998	ND(0.045)	0.097	ND(0.045)	0.097
		6-8	8/19/1998	ND(0.053)	0.12	ND(0.053)	0.12
I9-9-26-SB-4	I9-9-26-SB-4	0-0.5	8/19/1998	ND(0.041)	ND(0.041)	0.31	0.31
		0.5-1	8/19/1998	ND(0.89)	6.6	ND(0.89)	6.6
		1-2	8/19/1998	ND(0.037)	ND(0.037)	0.064	0.064
		2-4	8/19/1998	ND(0.046) [ND(0.045)]	ND(0.046) [ND(0.045)]	ND(0.046) [ND(0.045)]	ND(0.046) [ND(0.045)]
		4-6	8/19/1998	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
		6-8	8/19/1998	ND(0.041)	ND(0.041)	ND(0.041)	ND(0.041)
Parcel I9-9-29							
I9-9-29-SS-10	I9-9-29-SS-10	0-0.5	4/14/1998	ND(0.23)	ND(0.23)	1.3	1.3
		0.5-1	4/14/1998	ND(0.19)	ND(0.19)	1.0	1.0
		8-10	12/5/2000	ND(0.045)	ND(0.045)	ND(0.045)	ND(0.045)
I9-9-29-SB-1	I9-9-29-SB-1	0-0.5	3/4/1998	ND(0.55)	ND(0.55)	1.4	1.4
		0.5-1	3/4/1998	ND(0.18)	ND(0.18)	0.30	0.30
		1-2	3/4/1998	ND(0.075)	ND(0.075)	0.18	0.18
		2-4	3/4/1998	ND(0.074)	ND(0.074)	0.11	0.11
		4-6	3/4/1998	ND(0.21)	ND(0.21)	0.41	0.41
		6-8	3/4/1998	ND(0.093)	ND(0.093)	0.14	0.14
		8-10	3/4/1998	ND(0.060)	ND(0.060)	ND(0.060)	ND(0.12)
		10-12	3/4/1998	ND(0.054)	ND(0.054)	ND(0.054)	ND(0.11)
		12-14	3/4/1998	ND(0.047)	ND(0.047)	ND(0.047)	ND(0.094)
		14-16	3/4/1998	ND(0.056)	ND(0.056)	ND(0.056)	ND(0.11)

TABLE C-3
SUMMARY OF PRIOR (PRE-2003) PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
Parcel I9-9-29 (continued)							
I9-9-29-SB-5	I9-9-29-SB-5	1-2	4/15/1998	ND(0.22)	ND(0.22)	2.0	2.0
		2-4	4/15/1998	ND(0.018)	0.035	0.062	0.097
		4-6	4/15/1998	ND(0.19)	0.55	1.0	1.6
		6-8	4/15/1998	ND(0.020)	0.24	0.22	0.46
		8-10	4/15/1998	ND(0.028)	ND(0.028)	0.042	0.042
		10-12	4/15/1998	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)
		12-14	4/15/1998	ND(0.028) [ND(0.027)]	ND(0.028) [ND(0.027)]	ND(0.028) [ND(0.027)]	ND(0.028) [ND(0.027)]
		14-16	4/15/1998	ND(0.029)	ND(0.029)	ND(0.029)	ND(0.029)
I9-9-29-SB-6	I9-9-29-SB-6	1-2	4/15/1998	ND(0.20)	ND(0.20)	1.9	1.9
		2-4	4/15/1998	ND(0.19)	2.1	ND(0.19)	2.1
		4-6	4/15/1998	ND(0.38)	5.1	ND(0.38)	5.1
		6-8	4/15/1998	ND(0.024)	0.081	ND(0.024)	0.081
		8-10	4/15/1998	ND(0.026)	ND(0.026)	ND(0.026)	ND(0.026)
		10-12	4/15/1998	ND(0.019)	ND(0.019)	ND(0.019)	ND(0.019)
		12-14	4/15/1998	ND(0.028)	ND(0.028)	ND(0.028)	ND(0.028)
Parcel I9-9-30							
I9-9-30	I9-9-30-SB-1	0-0.5	12/5/2000	ND(0.045)	0.91	1.0	1.91
		0.5-1	12/5/2000	ND(0.045)	0.51	0.57	1.08
		1-2	12/5/2000	ND(0.046)	0.65	0.64	1.29
		2-4	12/5/2000	ND(0.045)	ND(0.045)	ND(0.045)	ND(0.045)
		4-6	12/5/2000	ND(0.23) [ND(0.044)]	6.4 [ND(0.044)]	3.4 [ND(0.044)]	9.8 [ND(0.044)]
		6-8	12/5/2000	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)
I9-9-30	I9-9-30-SB-2	0-0.5	12/5/2000	ND(0.049)	0.073	0.072	0.145
		0.5-1	12/5/2000	ND(0.041)	0.16	0.26	0.42
		1-2	12/5/2000	ND(0.040)	0.44	0.67	1.11
		2-4	12/5/2000	ND(0.21)	1.7	2.4	4.1
		4-6	12/5/2000	ND(0.050)	0.16	0.13	0.29
		6-8	12/5/2000	ND(0.051)	ND(0.051)	ND(0.051)	ND(0.051)
I9-9-30	I9-9-30-SB-3	0-0.5	12/5/2000	ND(0.048)	ND(0.048)	ND(0.048)	ND(0.048)
		0.5-1	12/5/2000	ND(0.039)	ND(0.039)	0.027 J	0.027 J
		1-2	12/5/2000	ND(0.039)	0.038 J	0.041	0.079
		2-4	12/5/2000	ND(0.042)	0.53	0.43	0.96
		4-6	12/5/2000	ND(0.045)	0.046 J	0.020 J	0.066 J
		6-8	12/5/2000	ND(0.045)	ND(0.045)	ND(0.045)	ND(0.045)
I9-9-30	I9-9-30-SS-1	0-0.5	12/5/2000	ND(0.060)	0.070	0.055 J	0.125
		0.5-1	12/5/2000	ND(0.074)	0.11	0.091	0.201
Parcel I9-10-8							
SLB-1-BB	SLB-1-BB	0-0.5	1/19/1995	NA	2.2	30	52
		0.5-1	1/19/1995	NA	120	94	214
		1-1.5	10/11/1995	NA	180	ND(120)	180
		1.5-2	10/11/1995	NA	72	ND(34) V	72
		2-2.5	10/11/1995	NA	4.7	ND(2.7) V	4.7
		2.5-3	10/11/1995	NA	45	ND(24) V	45
SLB-1-MB	SLB-1-MB	0-0.5	1/19/1995	NA	ND(6.4) V	9.0	9.0
		0.5-1	1/19/1995	NA	29	18	47
SLB-1-TB	SLB-1-TB	0-0.5	1/19/1995	NA	2.9	2.6	5.5 [4.2]
		0.5-1	1/19/1995	NA	ND(3.6)	2.8	2.96
SLB-1-TB-10	SLB-1-TB-10	0-0.5	10/11/1995	NA	0.28	0.20	0.48
SLB-1-TB-50	SLB-1-TB-50	0-0.5	1/19/1995	ND(0.052)	0.26	ND(0.22)V	0.26
Recreational Area 2							
SLB-2-BB	SLB-2-BB	0-0.5	5/24/1994	ND(0.049) V	ND(0.26) V	0.42	0.42
		0.5-1	5/24/1994	ND(0.034)	ND(0.77) V	0.96	0.96
SLB-2-MB	SLB-2-MB	0-0.5	5/24/1994	ND(0.022)	ND(0.045)	0.083	0.093
		0.5-1	5/24/1994	ND(0.020)	0.065	0.086	0.151
SLB-2-TB	SLB-2-TB	0-0.5	5/24/1994	ND(0.11)	ND(0.27) V	0.64	0.64
		0.5-1	5/24/1994	ND(0.11)	ND(0.47) V	1.2	1.28
SLB-6-BB	SLB-6-BB	0-0.5	5/24/1994	ND(0.024) [ND(0.024)]	ND(0.048) [ND(0.048)]	0.19 [0.19]	0.19 [0.202]
		0.5-1	5/24/1994	ND(0.12)	ND(0.46) V	0.76	0.76
SLB-6-MB	SLB-6-MB	0-0.5	5/24/1994	ND(0.11)	0.43	0.69	1.17
		0.5-1	5/24/1994	ND(0.22)	0.99	1.8	2.79
SLB-6-TB	SLB-6-TB	0-0.5	5/24/1994	ND(0.066) V	ND(0.040)	0.074	0.074
		0.5-1	5/24/1994	ND(0.11)	0.78	0.78	1.56

TABLE C-3
SUMMARY OF PRIOR (PRE-2003) PCB SOIL DATA

CONCEPTUAL RD/RA WORK PLAN FOR SOILS ADJACENT TO SILVER LAKE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221 -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
Recreational Area 3							
SLB-3-BB	SLB-3-BB	0-0.5	5/24/1994	ND(14) V	250	ND(4.6) V	250
		0.5-1	5/24/1994	ND(3.4)	52	ND(8.2) V	52
		1-1.5	10/11/1995	NA	57	ND(34)	57
		1.5-2	10/11/1995	NA	81	ND(40) V	81
		2-2.5	10/11/1995	NA	ND(17) V	23	23
		2.5-3	10/11/1995	NA	50	52	102
SLB-3-MB	SLB-3-MB	0-0.5	5/24/1994	ND(1.2)	5.5	7.5	13 [17.1]
		0.5-1	5/24/1994	ND(0.62) V	2.9	3.7	6.72
SLB-9-BB	SLB-9-BB	0-0.5	2/23/1995	NA	43	26	69
SLB-9-TB	SLB-9-TB	0-0.5	10/11/1995	NA	9.7	ND(4.7)	9.7
SLB-9-TB-12	SLB-9-TB-12	0-0.5	10/11/1995	NA	ND(0.91)	0.92	0.92
Recreational Area 4							
SLB-4-BB	SLB-4-BB	0-0.5	5/24/1994	ND(2.5)	24	51	75
		0.5-1	5/24/1994	ND(1.2)	10	10	20
		1-1.5	10/11/1995	NA	ND(0.94)	1.2	1.2
		1.5-2	10/11/1995	NA	ND(0.93)	1.3	1.3
		2-2.5	10/11/1995	NA	ND(0.14) V	0.26	0.26
		2.5-3	10/11/1995	NA	ND(0.092)	0.13	0.13
SLB-4-MB	SLB-4-MB	0-0.5	5/24/1994	ND(1.2)	5.2	2.4	7.6
		0.5-1	5/24/1994	ND(1.2)	9.5	3.9	13.4
SLB-4-TB	SLB-4-TB	0-0.5	5/24/1994	ND(0.052) V	ND(0.099) V	0.21	0.21
		0.5-1	5/24/1994	ND(0.021)	ND(0.043)	0.10	0.10

Notes:
1. Samples were collected and analyzed by General Electric Company subcontractors for PCBs.
2. NA - Not Analyzed.
3. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
4. Shaded data indicate results from samples collected below the depth proposed for use in the PCB evaluations of the averaging area in question (designated as the "X" depth), as specified in Table 3 of this Conceptual Work Plan. The data from these samples are included herein for reference and are not included in the PCB evaluation tables in Appendix D for the relevant averaging area.

Data Qualifiers:

AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
J - Estimated Value.
V - Indicates an elevated detection limit due to interference.

Appendix D

PCB Spatial Averaging Evaluation Tables and Polygon Maps

[Bound Separately]

Appendix E

Non-PCB Appendix IX+3
Evaluation Tables and Figures

[Bound Separately]

Appendix F

Risk Evaluation of Non-PCB Appendix IX+3 Constituents in Soils at Certain Areas Adjacent to Silver Lake

Risk Evaluation of Non-PCB Appendix IX+3 Constituents in Soils at Certain Areas Adjacent to Silver Lake

Appendix F

to

Conceptual Removal Design/Removal Action Work Plan for Soils Adjacent to Silver Lake

APPENDIX F

Risk Evaluation of Non-PCB Appendix IX+3 Constituents in Soils at Certain Areas Adjacent to Silver Lake

1.0 Introduction

The Silver Lake Area Removal Action Area (Silver Lake RAA) at the GE-Pittsfield/Housatonic River Site includes the bank portions of properties adjoining the Lake, as well as a number of adjacent non-bank areas within those properties. A number of non-PCB constituents have been detected in the soils in these areas. For each bank and non-bank averaging area within the Silver Lake RAA, these constituents have been evaluated in accordance with the multi-step process established for non-PCB Appendix IX+3 constituents in the *Statement of Work for Removal Actions Outside the River* (SOW) (BBL, 1999), which is part of the Consent Decree (CD) for this Site. The steps in this process are described in the text of this Conceptual RD/RA Work Plan. These steps included screening by comparison of the maximum detected concentrations of the constituents to the applicable EPA Region 9 Preliminary Remediation Goals (PRGs) for soil listed in an attachment to the SOW (or, for some constituents, surrogate PRGs for similar compounds). Following this screening process, the average concentrations of the remaining constituents in each relevant depth increment were compared to the applicable Method 1 soil standards that have been established by the Massachusetts Department of Environmental Protection (MDEP) under the Massachusetts Contingency Plan (MCP). At several averaging areas where there were significant exceedances of the applicable Method 1 soil standards, soil remediation has been proposed that would address such constituents, and the comparison to Method 1 standards was then repeated after taking into account the proposed remediation.

As described in the text of this Work Plan, there are five averaging areas adjacent to Silver Lake at which, after the above process, one or more non-PCB constituents had average concentrations exceeding the applicable Method 1 soil standards in at least one of the relevant depth increments, either under existing conditions or after the proposed remediation. These areas are:

- The non-bank portion of Parcel I9-9-9;
- The non-bank portion of Parcels I9-9-21 and I9-9-22 (commonly owned and evaluated jointly);

- The bank portion of Parcel I9-9-33;
- The bank portion of Parcel I9-9-201 (formerly Parcels I9-9-11 and I9-9-101); and
- Recreational Area 3 (RA-3).

For these areas, the General Electric Company (GE) requested AMEC Earth & Environmental (AMEC) to conduct area-specific risk evaluations of the non-PCB constituents. For the first three of these areas, GE requested AMEC to conduct these evaluations under existing conditions; and for the last two, GE requested that the evaluations be conducted under post-remediation conditions. In all cases, the risk evaluations were performed for all non-PCB constituents that were retained prior to the comparison to the Method 1 soil standards (except for dioxins/furans, which were evaluated separately in accordance with the SOW, as described in the text of this Work Plan), and they used the protocols for area-specific risk evaluations set forth in the SOW.

This Appendix describes and presents the results of the risk evaluations for the above-listed averaging areas. These areas have been evaluated based on the following types of uses:

- Parcel I9-9-9 (non-bank) is a portion of a residential property and thus has been evaluated as a residential area.
- Parcel I9-9-21/-22 (non-bank) comprises the non-bank portion of a commercial property and thus has been evaluated as a commercial area.
- Parcel I9-9-33 (bank) is the bank portion of a commercial property. Under the CD and SOW, the bank portions of such properties are subject to Performance Standards for recreational areas, and hence this area has been evaluated as a recreational area.
- Parcel I9-9-201 (bank) is also the bank portion of a commercial property. Since such bank areas are subject to Performance Standards for recreational areas, this area has been evaluated as recreational.
- RA-3 is a strip of vacant land between Silver Lake Boulevard and the Lake, which, under the CD and SOW, is also subject to Performance Standards for recreational areas. As such, this area has been evaluated as a recreational area.

In accordance with the SOW, these risk evaluations were based on: (a) the arithmetic average concentrations of the retained non-PCB constituents at each soil depth increment; (b) the exposure scenarios, soil depth increments, and exposure assumptions used by EPA in developing the PCB Performance Standards for residential, commercial, and recreational

areas (as described in EPA, 1999); and (c) standard EPA toxicity values. As discussed below, for the constituents and averaging areas evaluated, estimated cancer risks and non-cancer hazards do not exceed the acceptable benchmarks prescribed in the SOW.

2.0 Constituents, Depth Increments, and Exposure Scenarios Evaluated

In accordance with the protocols set forth in the SOW, the risk evaluations presented herein have considered all chemicals of potential concern (COPCs) that were retained for evaluation after the initial screening steps described in this Work Plan but before the comparison to MCP Method 1 standards, and have used the average concentrations of those constituents at each of the averaging areas in question (under either existing or post-remediation conditions, as applicable) in each depth increment. The constituents evaluated, which vary from area to area, are shown in Table 1.

For each area, the average concentrations of the COPCs have been calculated for the same depth increments evaluated for PCBs, using the exposure scenarios used by EPA (1999) in developing the PCB Performance Standards in the CD, as described below:

- For areas evaluated as residential, the relevant depth increments under the CD and SOW are the 0-1 foot and 1-X foot depth increments (where X equals the depth at which PCBs were detected). For residential areas, EPA (1999) used a Residential User scenario. Accordingly, to evaluate Parcel I9-9-9 (non-bank), the Residential User scenario has been applied to the 0-1 foot and 1-X foot depth increments (where X equals 11 feet).

- For commercial areas, the relevant depth increments under the CD and SOW are 0-1 foot, 0-3 feet (if a Grant of Environmental Restrictions and Easements [ERE] will not be executed), 1-6 feet, and 0-15 feet. For such properties, EPA (1999) evaluated the 0-1 foot depth increment using a Commercial Groundskeeper scenario and the 1-6 foot depth increment using a Utility Worker scenario. For the commercial area evaluated at this RAA – Parcels I9-9-21/-22 (non-bank), for which an ERE will not be executed – the evaluation was conducted for both the 0-1 and the 0-3 foot depth increments using the Commercial Groundskeeper scenario, and for the 1-6 and 0-15 foot depth increments using the Utility Worker Scenario.

- For recreational bank areas in the Silver Lake RAA, the relevant depth increments under the CD and SOW are the 0-1 foot and 1-3 foot depth increments for areas where an ERE will be executed and the 0-1 foot and 0-3 foot depth increments for areas where an ERE will not be executed. For recreational areas, EPA (1999) used a Child Recreational User scenario to evaluate the 0-1 foot depth increment, and did not present any specific risk calculations to support the PCB Performance Standard for the 1-3 foot or 0-3 foot depth increments. For the bank areas at the Silver Lake RAA that have been evaluated as recreational – i.e., Parcel I9-9-33 (bank), Parcel I9-9-201 (bank), and RA-3 – the Child Recreational User scenario has been applied to all relevant depth increments to be conservative. Since the owner of Parcel I9-9-33 has advised GE that he is willing to execute an ERE for that property, the evaluation of that bank area was conducted for the 0-1 and 1-3 foot depth increments. Since the status of obtaining EREs for Parcel I9-9-201 and RA-3 is currently uncertain, the evaluations of these areas were conducted for the 0-1, 0-3, and 1-3 foot depth increments. (The 1-3 foot depth increment would be relevant if or where an ERE is obtained, and the 0-3 foot depth increment would be relevant if or where an ERE is not obtained.)

With the exception of lead, the area-specific COPCs were included in risk calculations to determine whether cancer risks and non-cancer hazards fall within acceptable limits. (In accordance with the SOW, PCBs and dioxins/furans have not been included in this evaluation.) Since EPA has not developed standard toxicity values for lead, that constituent has been evaluated through application of risk-based concentrations (RBCs) derived using an EPA lead model, as discussed in Section 4 below.

3.0 Risk Evaluation Assumptions and Procedures (for All COPCs Except Lead)

As noted above, in accordance with the SOW, the exposure scenarios that have been evaluated are the same exposure scenarios utilized by EPA (1999) in supporting the PCB Performance Standards – namely: (a) for areas evaluated as residential, the Residential User scenario; (b) for the commercial area, the Commercial Groundskeeper scenario (for the 0-1 and 0-3 foot depth increments) and the Utility Worker scenario (for the 1-6 and 0-15 foot depth increments); and (c) for areas evaluated as recreational, the Child Recreational User scenario.

The Residential User scenario, used for the 0-1 and 1-X foot depth increments at the area evaluated based on residential standards, assumes that adult and child residents are exposed to affected soil five days per week for seven months of the year, for a total exposure frequency of 150 days per year. Cancer risks were evaluated for a resident for a 30-year duration – i.e., age 1 to age 30. Non-cancer hazards were evaluated for a young child aged 1 to 6 years for a period of 6 years. With the exception of chemical-specific absorption factors, all exposures assumptions used in this scenario are the same as those used by EPA (1999). The specific exposure assumptions used for the Residential User scenario are listed in Table 2.

The Commercial Groundskeeper scenario assumes that an adult is exposed to constituents in surficial soils 84 days per year for a period of 25 years. All exposure assumptions used to evaluate this scenario (except for absorption factors) were the same as those used by EPA (1999). Exposure assumptions used in the evaluation of this scenario are also provided in Table 2.

The Utility Worker scenario assumes that an adult is in contact with subsurface soils 5 days per year for 25 years. As with the Groundskeeper scenario, all exposure assumptions used in this scenario were the same as the assumptions used by EPA (1999). These assumptions are also presented in Table 2.

The Child Recreational User scenario assumes, for the assessment of carcinogenic risks, that a 1- to 13-year-old child is exposed to constituents in surface soil 84 days per year for a period of 12 years. For the assessment of non-cancer hazards, it is assumed that a 1- to 6-year-old child is exposed 84 days per year for a period of six years. Again, all exposure assumptions used in this scenario (except for absorption factors) are the same as those used by EPA (1999). The specific exposure assumptions used for the Child Recreational User scenario are also listed in Table 2.

With respect to absorption factors, EPA's dermal guidance document (EPA, 2004) specifies oral absorption factors less than 100 percent for certain of the constituents evaluated (e.g., 89 percent for the carcinogenic polycyclic aromatic hydrocarbons [PAHs]), and notes that where such factors are greater than 50 percent, the toxicity factors do not need to be

modified to represent the absorbed dose. Nevertheless, for purposes of the evaluations at the Silver Lake RAA, AMEC has conservatively assumed that the oral absorption of all chemicals evaluated is 100 percent. The dermal absorption factors used were taken from EPA's dermal guidance (EPA, 2004), where available, or otherwise from MDEP values (MDEP, 1994). The specific absorption factors used in these evaluations are shown in Table 3.

The carcinogenic COPCs have been evaluated for potential carcinogenic risks, while the non-carcinogenic COPCs have been evaluated for potential non-cancer hazards. The toxicity values – i.e., Cancer Slope Factors (CSFs) and/or Reference Doses (RfDs) – used in the evaluations are those set forth on EPA's (2007a) Integrated Risk Information System (IRIS), when available. For the carcinogenic PAHs for which no specific toxicity information is provided, relative potency factors (RPFs) recommended by EPA (1993) have been used to adjust the CSF values for these PAHs based on their assumed potency relative to benzo(a)pyrene.

There were also no RfDs available in IRIS for two of the non-carcinogenic constituents evaluated – benzo(g,h,i)perylene and phenanthrene. For both of these compounds, the RfD values used by MDEP (1994) to derive its MCP Method 1 soil standards were used. The specific toxicity values used in these evaluations are included in Table 3.

Based on these input values, predicted cancer risks and non-cancer hazards have been calculated for the COPCs using standard risk assessment procedures. The results have been compared to the benchmarks set forth in the SOW of an Excess Lifetime Cancer Risk (ELCR) of 1×10^{-5} (after rounding) and a Hazard Index (HI) of 1 for non-cancer effects.

4.0 Evaluation of Lead Exposures and Risks

Lead has been retained as a COPC at three of the areas evaluated – Parcels I9-9-9 (non-bank), I9-9-201 (bank) and RA-3. However, EPA has not developed toxicity criteria for lead (EPA, 2007a). Consequently, it is not possible to evaluate potential hazards associated with lead exposure in the same way that other COPCs are evaluated. Instead, EPA has established a "safe" fetal or child blood lead level of 10 µg/dL and has developed models to evaluate both adult and childhood exposures to lead, considering fetal or childhood blood

levels as the critical endpoint. For lead exposures in children, EPA has developed the Integrated Exposure Uptake Biokinetic Model (IEUBK) (EPA, 2002). This model is a biokinetic model that allows one to calculate blood levels in children who have been exposed to lead in a variety of media.

Using the IEUBK model, AMEC previously back-calculated a soil lead concentration for the Child Recreational User scenario that is protective of 95 percent of 0- to 7-year-old children at a benchmark blood lead concentration of 10 µg/dL. That concentration is 1,313 mg/kg. This soil lead concentration and the underlying calculations were originally presented in GE's *Conceptual Removal Design/Removal Action Work Plan Addendum for Newell Street Area I* (BBL, 2003), which was submitted to EPA on April 17, 2003 and approved by letter of May 13, 2003. This concentration has been approved by EPA for use as an RBC to evaluate lead exposures in area-specific risk evaluations at numerous Removal Action Areas under the CD.

AMEC has also used the IEUBK to back-calculate a soil lead concentration for the Residential User scenario that is protective of 95 percent of 0- to 7-year-old children at a benchmark blood lead concentration of 10 µg/dL. Using the default values provided in the IEUBK model, with the revised dietary ingestion rates provided in an update to that model (EPA, 2007b), AMEC has calculated an RBC for the Residential User Scenario of 400 mg/kg (Figure 1).

Consequently, an RBC of 1,313 mg/kg based on the IEUBK model has been used to evaluate lead exposures at averaging areas where the Child Recreational User scenario applies – Parcel I9-9-201 (bank) and RA-3. Similarly, an RBC of 400 mg/kg has been used to evaluate lead exposures at Parcel I9-9-9 (non-bank), where the Residential User scenario applies. Where the average area-specific lead concentrations at the relevant depth increments do not exceed the applicable RBCs, it is concluded that lead exposures will not result in adverse effects.

5.0 Area-Specific Risk Evaluations

Area-specific risk evaluations were conducted for the five averaging areas described above. The risk evaluations for Parcels I9-9-9 (non-bank), I9-9-21/-22 (non-bank), and I9-9-33 (bank) were based on existing conditions, while the risk evaluations for Parcel I9-9-201 (bank) and RA-3 were based on post-remediation conditions. The specific COPCs and depth

increments evaluated at each parcel/averaging area are described in Table 1, and the risk evaluation results are summarized in the following text. Spreadsheets showing pathway-specific and COPC-specific risk calculations are provided in Attachment A of this Appendix.

5.1 Parcel I9-9-9 (non-bank) – Residential

An area-specific risk evaluation has been performed for the non-bank soils at this residential use area based on the average existing concentrations of all constituents that were retained for evaluation after screening. The depth increments subject to risk evaluation for this averaging area are the 0-1 foot and 1-X foot depth increments, where X = 11 feet. The COPCs evaluated and their average concentrations in each relevant depth increment are provided in Table 1.

The Residential User scenario has been used to evaluate risks for the 0-1 and 1-11 foot depth increments. The calculated total cancer risks and non-cancer hazards for all COPCs evaluated at Parcel I9-9-9 (non-bank) are as follows.

Scenario	ELCR	HI
Residential User (0-1 foot)	7.3E-06	0.13
Residential User (1-11 foot)	1.2E-05	0.16

The estimated risk and hazard for the 0-1 foot depth increment are below the SOW benchmarks of an ELCR of 1×10^{-5} and a non-cancer HI of 1. The estimated cancer risk for the 1-11 foot depth increment slightly exceeds the cancer risk benchmark when presented with two significant figures (as above). However, when rounded to one significant figure, which is provided for in the SOW and is appropriate given that at least one factor in each exposure calculation is limited to a single significant figure, this estimated cancer risk does not exceed the SOW risk benchmark of 1×10^{-5}.

The average existing lead concentration in the 0- to 1-foot soil increment is 220 mg/kg, which is below the calculated RBC of 400 mg/kg for lead in soil in residential areas. The average existing lead concentration in the 1-11 foot depth increment, 311 mg/kg, is also below that benchmark. Thus, the existing lead concentrations in the surface and subsurface soils in this area are below the benchmark level of concern.

5.2 Parcels I9-9-21/-22 (non-bank) – Commercial

An area-specific risk evaluation of non-bank soils at this commercial area has been conducted based on the average existing concentrations of all constituents that were retained for evaluation after screening. The soil depths subject to risk evaluation for this area are the 0-1, 0-3, 1-6 and 0-15 foot depth increments. The COPCs evaluated and their average concentrations in each relevant depth increment are provided in Table 1.

The Commercial Groundskeeper scenario has been used to evaluate risks for the 0-1 foot and 0-3 foot depth increments, while the Utility Worker scenario has been used to evaluate risks for the 1-6 foot and 0-15 foot depth increments. The calculated total cancer risks and non-cancer hazards for all COPCs evaluated at Parcels I9-9-21/-22 (non-bank) are as follows.

Scenario	ELCR	HI
Groundskeeper (0-1 foot)	3.7E-06	0.0036
Groundskeeper (0-3 foot)	7.4E-06	0.0042
Utility Worker (1-6 foot)	2.3E-06	0.0011
Utility Worker (0-15 foot)	5.5E-06	0.0010

All these estimated risks and hazards are below the SOW benchmarks. Lead is not a COPC for this area and thus has not been evaluated.

5.3 Parcel I9-9-33 (bank) – Recreational

The bank portion of Parcel I9-9-33 has been evaluated as a recreational area. An area-specific risk evaluation of bank soils has been performed for this area based on the average existing concentrations of all constituents that were retained for evaluation after screening. The depth increments subject to risk evaluation for this area are the 0-1 foot and 1-3 foot depth increments. The COPCs evaluated and their average concentrations in each relevant depth increment are provided in Table 1.

As discussed above, the Child Recreational User scenario has been used to evaluate risks for both depth increments at this area. The calculated total cancer risks and non-cancer hazards for all COPCs evaluated at Parcel I9-9-33 (bank) are as follows.

Scenario	ELCR	HI
Child Recreational User (0-1 foot)	1.9E-06	0.12
Child Recreational User (1-3 foot)	2.3E-06	0.17

Estimated risks and hazards for both depth increments are below the SOW benchmarks of an ELCR of 1 x 10^{-5} and a non-cancer HI of 1. Lead is not a COPC for this area and thus has not been evaluated.

5.4 Parcel I9-9-201 (bank) – Recreational

The bank portion of Parcel I9-9-201 has been evaluated as a recreational area. An area-specific risk evaluation of bank soils has been performed for this area based on the average post-remediation concentrations of all constituents that were retained for evaluation after screening. The depth increments subject to risk evaluation for this area are the 0-1 foot, 0-3 foot, and 1-3 foot depth increments. The COPCs evaluated and their average concentrations in each relevant depth increment are provided in Table 1.

The Child Recreational User scenario has been used to evaluate risks for all three depth increments at this area. The calculated total cancer risks and non-cancer hazards for all COPCs evaluated at Parcel I9-9-201 (bank) are as follows.

Scenario	ELCR	HI
Child Recreational User (0-1 foot)	6.7E-06	0.064
Child Recreational User (0-3 foot)	5.4E-06	0.050
Child Recreational User (1-3 foot)	4.1E-06	0.035

Estimated risks and hazards for all depth increments are below the SOW benchmarks of an ELCR of 1 x 10^{-5} and a non-cancer HI of 1.

The average post-remediation lead concentrations in the 0-1 foot, 0-3 foot, and 1-3 foot depth increments are 321 mg/kg, 228 mg/kg, and 136 mg/kg, respectively. These concentrations are well below the calculated RBC of 1,313 mg/kg for lead in soil in recreational areas. Thus, the existing lead concentrations in the surface and subsurface soils in this area are below the benchmark level of concern.

5.4 Recreational Area RA-3 – Recreational

RA-3 is considered a recreational area. An area-specific risk evaluation has been performed for this area based on the average post-remediation concentrations of all constituents that were retained for evaluation after screening. The depth increments subject to risk evaluation for this area are the 0-1 foot, 0-3 foot, and 1-3 foot depth increments. The COPCs evaluated and their average concentrations in each relevant depth increment are provided in Table 1.

The Child Recreational User scenario has been used to evaluate risks for all three depth increments at this area. The calculated total cancer risks and non-cancer hazards for all COPCs evaluated at RA-3 are as follows.

Scenario	ELCR	HI
Child Recreational User (0-1 foot)	1.1E-05	0.066
Child Recreational User (0-3 foot)	1.0E-05	0.063
Child Recreational User (1-3 foot)	9.5E-06	0.060

The estimated risk and hazard for the 0-3 and 1-3 foot depth increments do not exceed the SOW benchmarks of an ELCR of 1×10^{-5} and a non-cancer HI of 1. The estimated cancer risk for the 0-1 foot depth increment slightly exceeds the cancer risk benchmark when presented with two significant figures (as above). However, when rounded to one significant figure, which is provided for in the SOW and is appropriate given that at least one factor in each exposure calculation is limited to a single significant figure, this estimated cancer risk does not exceed the SOW risk benchmark of 1×10^{-5}.

The average post-remediation lead concentrations in the 0-1, 0-3, and 1-3 foot increments are 212 mg/kg, 286 mg/kg, and 229 mg/kg, respectively. These concentrations are well below the calculated RBC of 1,313 mg/kg for lead in soil in recreational areas. Thus, the post-remediation lead concentrations in the surface and subsurface soils in this area are below the benchmark level of concern.

6.0 Summary of Area-Specific Risk Evaluation Results

The predicted cancer risks and non-cancer hazards for the non-PCB COPCs at each averaging area evaluated are summarized in Tables 4 and 5, respectively. These tables show the cancer risk and non-cancer hazard results for each exposure pathway and depth

increment evaluated at these areas. Backup COPC-specific calculations are provided in Attachment A. As shown in Table 4, total estimated cancer risks (after rounding to one significant figure) do not exceed the identified cancer risk benchmark of 1×10^{-5} for any depth increment at any of the areas evaluated. As shown in Table 5, the non-cancer hazards resulting from exposures to surficial and subsurface soils do not exceed the target Hazard Index of 1 at any of the areas. Finally, as discussed above, none of the average lead concentrations at the areas where lead was retained exceeds the applicable RBC. For these reasons, it can be concluded that, following the soil remediation proposed by GE, the soil concentrations for all such COPCs at these areas would not present a risk of harm under the exposure scenarios evaluated.

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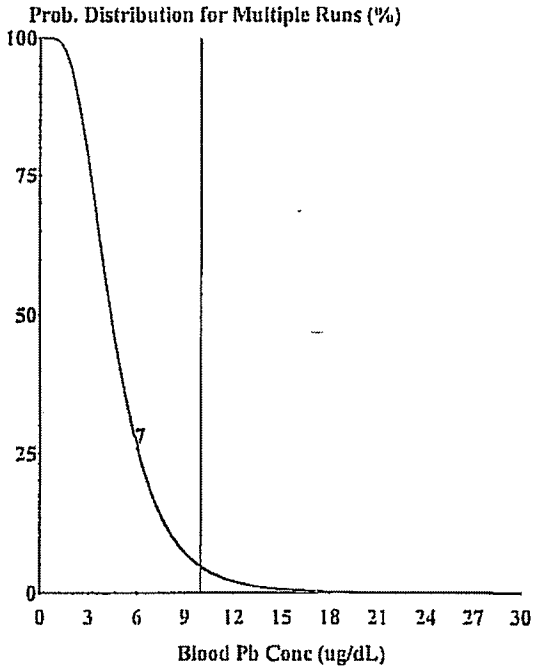
Figure 1. Results of IEUBK Model for Residential Exposures



Cutoff = 10.000 ug/dl
GSD = 1.600

Media Choice = SOIL
Age Range = 0 to 84 months
Run Mode = Resenrch

Run #	% Above	Concentration
1	4.784	395.000
2	4.848	396.667
3	4.913	398.333
4	4.978	400.000
5	5.044	401.667
6	5.110	403.333
7	5.177	405.000

Table 1. Summary of Parcel-Specific Exposure Point Concentrations for Each Depth Increment (mg/kg)

	I9-9-9 (non-bank)		I9-9-21/I9-9-22 (non-bank)				I9-9-33 (bank)		I9-9-201 (bank)			RA-3		
Constituent	**0-1 foot**	**1-X foot (X=11')**	**0-1 foot**	**0-3 foot**	**1-6 foot**	**0-15 foot**	**0-1 foot**	**1-3 foot**	**0-1 foot**	**0-3 foot**	**1-3 foot**	**0-1 foot**	**0-3 foot**	**1-3 foot**
Acetophenone	-	-	-	-	-	-	-	-	-	-	-	0.28	0.25	0.21
Arsenic	4.90	7.27	5.53	6.30	7.21	6.59	4.40	4.73	10.6	8.23	5.89	9.51	9.20	8.83
Benzo(a)anthracene	0.23	0.44	1.4	6.8	7.9	20	-	-	1.2	1.0	0.8	2.6	3.3	4.0
Benzo(a)pyrene	0.21	0.40	1.5	5.4	6.1	15	0.25	0.37	1.0	0.83	0.63	2.3	1.9	1.5
Benzo(b)fluoranthene	0.21	0.37	1.4	3.7	3.9	13	-	-	0.81	0.67	0.54	3.0	3.7	4.4
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	1.9	2.0	2.2
Benzo(k)fluoranthene	-	-	1.4	4.2	4.5	13	-	-	0.94	0.76	0.58	1.1	1.4	1.7
Chrysene	-	-	-	-	-		-	-	-	-	-	3.1	3.6	4.2
Dibenzo(a,h)anthracene	-	-	1.9	1.7	1.0	2.7	-	-	0.25	0.23	0.21	0.51	0.45	0.38
Indeno(1,2,3-cd)pyrene	-	-	1.9	2.7	2.4	5.9	-	-	0.59	0.47	0.35	1.5	1.8	2.1
Lead	220	311	-	-	-	-	-	-	321	228	136	212	286	229
Mercury	-	-	-	-	-	-	18.2	25.0	-	-	-	-	-	-
Naphthalane	-	-	-	-	-	-	-	-	-	-	-	0.47	0.54	0.61
Phenanthrene	-	-	1.4	14	17	47	-	-	1.53	1.3	1.1	2.9	4.5	6.1
Sulfide	608	278	-	-	-	-	85.1	247	-	-	-	337	303	264
1,2,3-Trichloropropane	-	-	0.0029	0.0029	0.0029	0.016	-	-	-	-	-	-	-	-

Table 2. Summary of Exposure Parameters for the Residential User, Groundskeeper, Utility Worker, and Child Recreational User Scenarios

Parameter	Values						Basis
	Residential User		Groundskeeper	Utility Worker	Child Recreational User		
	1-6 years	7-31 years[a]			1-6 years	7-13 years[a]	
Soil Ingestion Rate	200 mg/day	100 mg/day	50 mg/day	137 mg/day	200 mg/day	100 mg/day	EPA, 1999
Fraction from the Site[b]	1	1	1.00	1.0	0.5	0.5	EPA, 1999
Dermal Adherence Factor			0.1 mg/cm^2	0.8 mg/cm^2			EPA, 1999
May through September	0.24 mg/cm^2	0.10 mg/cm^2	-	-	0.24 mg/cm^2	0.26 mg/cm^2	EPA, 1999
October and November	0.23 mg/cm^2	0.15 mg/cm^2	-	-	0.23 mg/cm^2	0.26 mg/cm^2	EPA, 1999
Seasonal Time-weighted Ave.[c]	0.237 mg/cm^2	0.114 mg/cm^2	-	-	0.237 mg/cm^2	0.26 mg/cm^2	Calculated
Skin Surface Area Exposed			3300 cm^2	3300 cm^2	-	-	EPA, 1999
May through September	2900 cm^2	5700 cm^2	-	-	2900 cm^2	4276 cm^2	EPA, 1999
October and November	1340 cm^2	2110 cm^2	-	-	1340 cm^2	1733 cm^2	EPA, 1999
Seasonal Time-weighted Ave.[c]	2454 cm^2	4674 cm^2	-	-	2454 cm^2	3549 cm^2	Calculated
Exposure Frequency	150 days/year	150 days/year	84 days/year	5 days/year	84 days/year	84 days/year	EPA, 1999
Exposure Duration	6 years	24 years	25 years	25 years	6 years	6 years	EPA, 1999
Body Weight	15 kg	70 kg	70 kg	70 kg	15 kg	36.8 kg	EPA, 1999
Carcinogenic Averaging Time	25,550 days	25,550 days	25,550 days	25,550 days	25,550 days	25,550 days	EPA, 1999
Non-Carcinogenic Averaging Time	2190 days	-	9125 days	9125 days	2190 days	-	EPA, 1999

[a]Only used for the evaluation of carcinogenic risks. The noncancer hazards are evaluated for the 1 to 6 year age group only.

[b]Fraction from site only used for the soil ingestion pathway.

[c]Seasonal time-weighted average calculated using the following method: ((May-September*5)+(October-November*2))/7

Table 3. Summary of Chemical-Specific Absorption Factors and Toxicity Values

Constituent	Oral Absorption Factor [1]	Relative Dermal Absorption Factor [2]	Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Reference Dose (mg/kg-day)
Acetophenone	1	0.1	-	0.1 [3]
Arsenic	1	0.03	1.5 [3]	0.0003 [3]
Benzo(a)anthracene	1	0.13	0.73 [5]	-
Benzo(a)pyrene	1	0.13	7.3 [3]	-
Benzo(b)fluoranthene	1	0.13	0.73 [5]	-
Benzo(g,h,i)perylene	1	0.13	-	0.04 [4]
Benzo(k)fluoranthene	1	0.13	0.073 [5]	-
Chrysene	1	0.13	0.0073 [5]	-
Dibenzo(a,h)anthracene	1	0.13	7.3 [5]	-
Indeno(1,2,3-cd)pyrene	1	0.13	0.73 [5]	-
Lead	1	NA	NA	NA
Mercury	1	0.006 [4]	-	0.0003 [3]
Naphthalene	1	0.13	-	0.02 [3]
Phenanthrene	1	0.13	-	0.04 [4]
Sulfide [6]	1	0.1	-	0.1 [3]
1,2,3-Trichloropropane	1	0	-	0.006 [3]

Notes:

1. Conservative default
2. EPA (2004) Dermal Guidance Document, except where otherwise noted
3. IRIS (EPA, 2007)
4. MDEP (1994)
5. Derived through application of Relative Potency Factors (EPA, 1993) to the CSF for benzo(a)pyrene
6. Evaluated using carbon disulfide as surrogate compound

Table 4. Summary of Potential Cancer Risks Associated with Soils Adjacent to Silver Lake

Area Number	Exposure Pathway	Cancer Risk					
		0- to 1-foot	0- to 3-foot	1- to 6-foot	1- to 3-foot	0- to 15-foot	1- to X-foot
I9-9-9 (non-bank)	Soil Ingestion	6.2E-06	**NR**	**NR**	**NR**	**NR**	9.7E-06
Residential	Dermal Exposure	1.1E-06	**NR**	**NR**	**NR**	**NR**	1.9E-06
(X=11 feet)	**Total**	**7.3E-06**	**NR**	**NR**	**NR**	**NR**	**1.2E-05**
I9-9-21/I9-9-22 (non-bank)	Soil Ingestion	2.2E-06	4.2E-06	7.0E-07	**NR**	1.6E-06	**NR**
Commercial	Dermal Exposure	1.5E-06	3.2E-06	1.6E-06	**NR**	3.9E-06	**NR**
	Total	**3.7E-06**	**7.4E-06**	**2.3E-06**	**NR**	**5.5E-06**	**NR**
I9-9-33 (bank)	Soil Ingestion	1.3E-06	**NR**	**NR**	1.6E-06	**NR**	**NR**
Recreational	Dermal Exposure	5.5E-07	**NR**	**NR**	7.1E-07	**NR**	**NR**
	Total	**1.9E-06**	**NR**	**NR**	**2.3E-06**	**NR**	**NR**
I9-9-201 (bank)	Soil Ingestion	4.3E-06	3.4E-06	**NR**	2.6E-06	**NR**	**NR**
Recreational	Dermal Exposure	2.4E-06	2.0E-06	**NR**	1.5E-06	**NR**	**NR**
	Total	**6.7E-06**	**5.4E-06**	**NR**	**4.1E-06**	**NR**	**NR**
RA-3	Soil Ingestion	6.3E-06	5.9E-06	**NR**	5.5E-06	**NR**	**NR**
Recreational	Dermal Exposure	4.8E-06	4.4E-06	**NR**	4.0E-06	**NR**	**NR**
	Total	**1.1E-05**	**1.0E-05**	**NR**	**9.5E-06**	**NR**	**NR**

NR = Not relevant for this property

Table 5. Summary of Potential Hazard Indices Associated with Soils Adjacent to Silver Lake

Area Number	Exposure Pathway	Hazard Index					
		0- to 1-foot	0- to 3-foot	1- to 6-foot	1- to 3-foot	0- to 15-foot	1- to X-foot
I9-9-9 (non-bank)	Soil Ingestion	0.12	**NR**	**NR**	**NR**	**NR**	0.15
Residential	Dermal Exposure	0.011	**NR**	**NR**	**NR**	**NR**	0.013
(X=11 feet)	**Total**	**0.13**	**NR**	**NR**	**NR**	**NR**	**0.16**
I9-9-21/I9-9-22 (non-bank)	Soil Ingestion	0.0030	0.0035	0.00066	**NR**	0.00062	**NR**
Commercial	Dermal Exposure	0.00060	0.00073	0.00040	**NR**	0.00042	**NR**
	Total	**0.0036**	**0.0042**	**0.0011**	**NR**	**0.0010**	**NR**
I9-9-33 (bank)	Soil Ingestion	0.12	**NR**	**NR**	0.16	**NR**	**NR**
Recreational	Dermal Exposure	0.0074	**NR**	**NR**	0.0093	**NR**	**NR**
	Total	**0.12**	**NR**	**NR**	**0.17**	**NR**	**NR**
I9-9-201 (bank)	Soil Ingestion	0.054	0.042	**NR**	0.030	**NR**	**NR**
Recreational	Dermal Exposure	0.0095	0.0074	**NR**	0.0053	**NR**	**NR**
	Total	**0.064**	**0.050**	**NR**	**0.035**	**NR**	**NR**
RA-3	Soil Ingestion	0.054	0.052	**NR**	0.050	**NR**	**NR**
Recreational	Dermal Exposure	0.012	0.0111	**NR**	0.011	**NR**	**NR**
	Total	**0.066**	**0.063**	**NR**	**0.060**	**NR**	**NR**

NR = Not relevant for this property

Attachment A

Risk Calculations for Non-PCB Constituents in Soils at Certain Areas Adjacent to Silver Lake

Table A1a - Parcel I9-9-9: Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil
Pathway: Incidental Soil Ingestion
Receptor: Child Residential User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x FR x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Benzo(a)anthracene	0.23	200	1.0	1.0	150	6	1E-06	15	25,550	1.1E-07	0.73	7.9E-08
Benzo(a)pyrene	0.21	200	1.0	1.0	150	6	1E-06	15	25,550	9.9E-08	7.3	7.2E-07
Benzo(b)fluoranthene	0.21	200	1.0	1.0	150	6	1E-06	15	25,550	9.9E-08	0.73	7.2E-08
Arsenic	4.90	200	1.0	1.0	150	6	1E-06	15	25,550	2.3E-06	1.5	3.5E-06
											Total	**4.3E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x FR x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	4.90	200	1.0	1.0	150	6	1E-06	15	2,190	2.7E-05	0.0003	8.9E-02
Sulfide	608	200	1.0	1.0	150	6	1E-06	15	2,190	3.3E-03	0.1	3.3E-02
Notes											**Total**	**1.2E-01**

Sulfide evaluated as carbon disulfide

Table A1b - Parcel I9-9-9: Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil
Pathway: Dermal Contact
Receptor: Child Residential User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^4)	SA Surface Area Exposed (cm^4/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg-d)^{-1}$	Risk
Benzo(a)anthracene	0.23	0.237	2,454	0.13	150	6	1E-06	15	25,550	4.1E-08	0.73	3.0E-08
Benzo(a)pyrene	0.21	0.237	2,454	0.13	150	6	1E-06	15	25,550	3.7E-08	7.3	2.7E-07
Benzo(b)fluoranthene	0.21	0.237	2,454	0.13	150	6	1E-06	15	25,550	3.7E-08	0.73	2.7E-08
Arsenic	4.90	0.237	2,454	0.03	150	6	1E-06	15	25,550	2.0E-07	1.5	3.0E-07
											Total	**6.3E-07**

NONCARCINOGENIC
HQ = CDI/RfD
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	4.90	0.237	2,454	0.03	150	6	1E-06	15	2,190	2.3E-06	0.0003	7.8E-03
Sulfide	608	0.237	2,454	0.03	150	6	1E-06	15	2,190	2.9E-04	0.1	2.9E-03
											Total	**1.1E-02**

Notes
Sulfide evaluated as carbon disulfide

Table A1c - Parcel I9-9-9: Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil
Pathway: Incidental Soil Ingestion
Receptor: Adult Residential User
CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x FR x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Benzo(a)anthracene	0.23	100	1.0	1.0	150	24	1E-06	70	25,550	4.6E-08	0.73	3.4E-08
Benzo(a)pyrene	0.21	100	1.0	1.0	150	24	1E-06	70	25,550	4.2E-08	7.3	3.1E-07
Benzo(b)fluoranthene	0.21	100	1.0	1.0	150	24	1E-06	70	25,550	4.2E-08	0.73	3.1E-08
Arsenic	4.90	100	1.0	1.0	150	24	1E-06	70	25,550	9.9E-07	1.5	1.5E-06
											Total	**1.9E-06**

Table A1d - Parcel I9-9-9: Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil
Pathway: Dermal Contact
Receptor: Adult Residential User

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg-d)^{-1}$	Risk
Benzo(a)anthracene	0.23	0.114	4,674	0.13	150	24	1E-06	70	25,550	3.2E-08	0.73	2.3E-08
Benzo(a)pyrene	0.21	0.114	4,674	0.13	150	24	1E-06	70	25,550	2.9E-08	7.3	2.1E-07
Benzo(b)fluoranthene	0.21	0.114	4,674	0.13	150	24	1E-06	70	25,550	2.9E-08	0.73	2.1E-08
Arsenic	4.90	0.114	4,674	0.03	150	24	1E-06	70	25,550	1.6E-07	1.5	2.4E-07
											Total	**5.0E-07**

Total Carcinogenic Risk - Adult & Child		Ingestion	Dermal	Total
Benzo(a)anthracene		1.1E-07	5.3E-08	1.7E-07
Benzo(a)pyrene		1.0E-06	4.9E-07	1.5E-06
Benzo(b)fluoranthene		1.0E-07	4.9E-08	1.5E-07
Arsenic		4.9E-06	5.4E-07	5.5E-06
	Total	**6.2E-06**	**1.1E-06**	**7.3E-06**
Total Noncarcinogenic Hazard - Child		Ingestion	Dermal	Total
Arsenic		8.9E-02	7.8E-03	9.7E-02
Sulfide		3.3E-02	2.9E-03	3.6E-02
	Total	**0.123**	**0.011**	**0.13**

Table A2a - Parcel I9-9-9: Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to X-Foot Soil (X=11 feet)
Pathway: Incidental Soil Ingestion
Receptor: Child Residential User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x FR x EF x ED x CF x 1/BW x 1/ATc

	Cs	IgR	OA	FR	EF	ED	CF	BW	ATc	CDI	CSF	Risk
Chemical	Soil Concentration (mg/kg)	Ingestion Rate (mg/d)	Oral Absorption (unitless)	Fraction from Site (unitless)	Exposure Frequency (d/yr)	Exposure Duration (yrs)	Conversion Factor (kg/mg)	Body Weight (kg)	Averaging Time Carcinogenic (days)	Chronic Daily Intake (mg/kg-d)	Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	
Benzo(a)anthracene	0.44	200	1.0	1.0	150	6	1E-06	15	25,550	2.1E-07	0.73	1.5E-07
Benzo(a)pyrene	0.40	200	1.0	1.0	150	6	1E-06	15	25,550	1.9E-07	7.3	1.4E-06
Benzo(b)fluoranthene	0.37	200	1.0	1.0	150	6	1E-06	15	25,550	1.7E-07	0.73	1.3E-07
Arsenic	7.27	200	1.0	1.0	150	6	1E-06	15	25,550	3.4E-06	1.5	5.1E-06
											Total	**6.8E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x FR x EF x ED x CF x 1/BW x 1/ATc

	Cs	IgR	OA	FR	EF	ED	CF	BW	ATnc	CDI	RfD	HQ
Chemical	Soil Concentration (mg/kg)	Ingestion Rate (mg/d)	Oral Absorption (unitless)	Fraction from Site (unitless)	Exposure Frequency (d/yr)	Exposure Duration (yrs)	Conversion Factor (kg/mg)	Body Weight (kg)	Averaging Time Noncarcinogenic (days)	Chronic Daily Intake (mg/kg-d)	Reference Dose (mg/kg-d)	Hazard Quotient
Arsenic	7.27	200	1.0	1.0	150	6	1E-06	15	2,190	4.0E-05	0.0003	1.3E-01
Sulfide	278	200	1.0	1.0	150	6	1E-06	15	2,190	1.5E-03	0.1	1.5E-02
Notes											**Total**	**1.5E-01**

Sulfide evaluated as carbon disulfide

Table A2b - Parcel I9-9-9: Cancer and Non-Cancer Risks from Dermal Exposure to 1- to X-Foot Soil (X=11 feet)
Pathway: Dermal Contact
Receptor: Child Residential User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg-d)^{-1}$	Risk
Benzo(a)anthracene	0.44	0.237	2,454	0.13	150	6	1E-06	15	25,550	7.8E-08	0.73	5.7E-08
Benzo(a)pyrene	0.40	0.237	2,454	0.13	150	6	1E-06	15	25,550	7.1E-08	7.3	5.2E-07
Benzo(b)fluoranthene	0.37	0.237	2,454	0.13	150	6	1E-06	15	25,550	6.6E-08	0.73	4.8E-08
Arsenic	7.27	0.237	2,454	0.03	150	6	1E-06	15	25,550	3.0E-07	1.5	4.5E-07
											Total	**1.1E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	7.27	0.237	2,454	0.03	150	6	1E-06	15	2,190	3.5E-06	0.0003	1.2E-02
Sulfide	278	0.237	2,454	0.03	150	6	1E-06	15	2,190	1.3E-04	0.1	1.3E-03
Notes											**Total**	**1.3E-02**

Sulfide evaluated as carbon disulfide

Table A2c - Parcel I9-9-9: Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to X-Foot Soil (X=11 feet)
Pathway: Incidental Soil Ingestion
Receptor: Adult Residential User
CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x FR x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Benzo(a)anthracene	0.44	100	1.0	1.0	150	24	1E-06	70	25,550	8.9E-08	0.73	6.5E-08
Benzo(a)pyrene	0.40	100	1.0	1.0	150	24	1E-06	70	25,550	8.1E-08	7.3	5.9E-07
Benzo(b)fluoranthene	0.37	100	1.0	1.0	150	24	1E-06	70	25,550	7.4E-08	0.73	5.4E-08
Arsenic	7.27	100	1.0	1.0	150	24	1E-06	70	25,550	1.5E-06	1.5	2.2E-06
											Total	**2.9E-06**

Table A2d - Parcel I9-9-9: Cancer and Non-Cancer Risks from Dermal Exposure to 1- to X-Foot Soil (X=11 feet)
Pathway: Dermal Contact
Receptor: Adult Residential User

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Benzo(a)anthracene	0.44	0.114	4,674	0.13	150	24	1E-06	70	25,550	6.1E-08	0.73	4.5E-08
Benzo(a)pyrene	0.40	0.114	4,674	0.13	150	24	1E-06	70	25,550	5.6E-08	7.3	4.1E-07
Benzo(b)fluoranthene	0.37	0.114	4,674	0.13	150	24	1E-06	70	25,550	5.2E-08	0.73	3.8E-08
Arsenic	7.27	0.114	4,674	0.03	150	24	1E-06	70	25,550	2.3E-07	1.5	3.5E-07
											Total	**8.4E-07**

Total Carcinogenic Risk - Adult & Child		Ingestion	Dermal	Total
Benzo(a)anthracene		2.2E-07	1.0E-07	3.2E-07
Benzo(a)pyrene		2.0E-06	9.3E-07	2.9E-06
Benzo(b)fluoranthene		1.8E-07	8.6E-08	2.7E-07
Arsenic		7.3E-06	8.0E-07	8.1E-06
	Total	**9.7E-06**	**1.9E-06**	**1.2E-05**
Total Noncarcinogenic Hazard - Child		Ingestion	Dermal	Total
Arsenic		1.3E-01	1.2E-02	1.4E-01
Sulfide		1.5E-02	1.3E-03	1.7E-02
	Total	**0.15**	**0.013**	**0.16**

Table A3a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Incidental Soil Ingestion
Receptor: Groundskeeper

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	5.53	50	1.0	84	25	1E-06	70	25,550	3.2E-07	1.5	4.9E-07
Benzo(a)anthracene	1.4	50	1.0	84	25	1E-06	70	25,550	8.2E-08	0.73	6.0E-08
Benzo(a)pyrene	1.5	50	1.0	84	25	1E-06	70	25,550	8.8E-08	7.3	6.4E-07
Benzo(b)fluoranthene	1.4	50	1.0	84	25	1E-06	70	25,550	8.2E-08	0.73	6.0E-08
Benzo(k)fluoranthene	1.4	50	1.0	84	25	1E-06	70	25,550	8.2E-08	0.073	6.0E-09
Dibenzo(a,h)anthracene	1.9	50	1.0	84	25	1E-06	70	25,550	1.1E-07	7.3	8.1E-07
Indeno(1,2,3-cd)pyrene	1.9	50	1.0	84	25	1E-06	70	25,550	1.1E-07	0.73	8.1E-08
										Total	**2.2E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	5.53	50	1.0	84	25	1E-06	70	9,125	9.1E-07	0.0003	3.0E-03
Phenanthrene	1.4	50	1.0	84	25	1E-06	70	9,125	2.3E-07	0.04	5.8E-06
1,2,3-Trichloropropane	0.0029	50	1.0	84	25	1E-06	70	9,125	4.8E-10	0.006	7.9E-08
										Total	**3.0E-03**

Table A3b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Dermal Contact
Receptor: Groundskeeper

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	5.53	0.1	3,300	0.03	84	25	1E-06	70	25,550	6.4E-08	1.5	9.6E-08
Benzo(a)anthracene	1.4	0.1	3,300	0.13	84	25	1E-06	70	25,550	7.1E-08	0.73	5.1E-08
Benzo(a)pyrene	1.5	0.1	3,300	0.13	84	25	1E-06	70	25,550	7.6E-08	7.3	5.5E-07
Benzo(b)fluoranthene	1.4	0.1	3,300	0.13	84	25	1E-06	70	25,550	7.1E-08	0.73	5.1E-08
Benzo(k)fluoranthene	1.4	0.1	3,300	0.13	84	25	1E-06	70	25,550	7.1E-08	0.073	5.1E-09
Dibenzo(a,h)anthracene	1.9	0.1	3,300	0.13	84	25	1E-06	70	25,550	9.6E-08	7.3	7.0E-07
Indeno(1,2,3-cd)pyrene	1.9	0.1	3,300	0.13	84	25	1E-06	70	25,550	9.6E-08	0.73	7.0E-08
											Total	**1.5E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	5.53	0.1	3,300	0.03	84	25	1E-06	70	9,125	1.8E-07	0.0003	6.0E-04
Phenanthrene	1.4	0.1	3,300	0.13	84	25	1E-06	70	9,125	2.0E-07	0.04	4.9E-06
1,2,3-Trichloropropane	0.0029	0.1	3,300	0	84	25	1E-06	70	9,125	0.0E+00	0.006	0.0E+00
											Total	**6.0E-04**

Table A3c - Summary of Cancer and Non-Cancer Risks in Averaging Area 4B

Total Carcinogenic Risk		Ingestion	Dermal	Total
Arsenic		4.9E-07	9.6E-08	5.8E-07
Benzo(a)anthracene		6.0E-08	5.1E-08	1.1E-07
Benzo(a)pyrene		6.4E-07	5.5E-07	1.2E-06
Benzo(b)fluoranthene		6.0E-08	5.1E-08	1.1E-07
Benzo(k)fluoranthene		6.0E-09	5.1E-09	1.1E-08
Dibenzo(a,h)anthracene		8.1E-07	7.0E-07	1.5E-06
Indeno(1,2,3-cd)pyrene		8.1E-08	7.0E-08	1.5E-07
	Total	**2.2E-06**	**1.5E-06**	**3.7E-06**
Total Noncarcinogenic Hazard		Ingestion	Dermal	Total
Arsenic		3.0E-03	6.0E-04	3.6E-03
Phenanthrene		5.8E-06	4.9E-06	1.1E-05
1,2,3-Trichloropropane		7.9E-08	0.0E+00	7.9E-08
	Total	**0.0030**	**0.00060**	**0.0036**

Table A4a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 3-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Incidental Soil Ingestion
Receptor: Groundskeeper

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	6.3	50	1.0	84	25	1E-06	70	25,550	3.7E-07	1.5	5.5E-07
Benzo(a)anthracene	6.8	50	1.0	84	25	1E-06	70	25,550	4.0E-07	0.73	2.9E-07
Benzo(a)pyrene	5.4	50	1.0	84	25	1E-06	70	25,550	3.2E-07	7.3	2.3E-06
Benzo(b)fluoranthene	3.7	50	1.0	84	25	1E-06	70	25,550	2.2E-07	0.73	1.6E-07
Benzo(k)fluoranthene	4.2	50	1.0	84	25	1E-06	70	25,550	2.5E-07	0.073	1.8E-08
Dibenzo(a,h)anthracene	1.7	50	1.0	84	25	1E-06	70	25,550	1.0E-07	7.3	7.3E-07
Indeno(1,2,3-cd)pyrene	2.7	50	1.0	84	25	1E-06	70	25,550	1.6E-07	0.73	1.2E-07
										Total	**4.2E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	6.3	50	1.0	84	25	1E-06	70	9,125	1.0E-06	0.0003	3.5E-03
Phenanthrene	14	50	1.0	84	25	1E-06	70	9,125	2.3E-06	0.04	5.8E-05
1,2,3-Trichloropropane	0.0029	50	1.0	84	25	1E-06	70	9,125	4.8E-10	0.006	7.9E-08
										Total	**3.5E-03**

Table A4b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 3-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Dermal Contact
Receptor: Groundskeeper

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^4)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	6.3	0.1	3,300	0.03	84	25	1E-06	70	25,550	7.3E-08	1.5	1.1E-07
Benzo(a)anthracene	6.8	0.1	3,300	0.13	84	25	1E-06	70	25,550	3.4E-07	0.73	2.5E-07
Benzo(a)pyrene	5.4	0.1	3,300	0.13	84	25	1E-06	70	25,550	2.7E-07	7.3	2.0E-06
Benzo(b)fluoranthene	3.7	0.1	3,300	0.13	84	25	1E-06	70	25,550	1.9E-07	0.73	1.4E-07
Benzo(k)fluoranthene	4.2	0.1	3,300	0.13	84	25	1E-06	70	25,550	2.1E-07	0.073	1.5E-08
Dibenzo(a,h)anthracene	1.7	0.1	3,300	0.13	84	25	1E-06	70	25,550	8.6E-08	7.3	6.3E-07
Indeno(1,2,3-cd)pyrene	2.7	0.1	3,300	0.13	84	25	1E-06	70	25,550	1.4E-07	0.73	9.9E-08
											Total	**3.2E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	6.3	0.1	3,300	0.03	84	25	1E-06	70	9,125	2.1E-07	0.0003	6.8E-04
Phenanthrene	14	0.1	3,300	0.13	84	25	1E-06	70	9,125	2.0E-06	0.04	4.9E-05
1,2,3-Trichloropropane	0.0029	0.1	3,300	0	84	25	1E-06	70	9,125	0.0E+00	0.006	0.0E+00
											Total	**7.3E-04**

Total Carcinogenic Risk		Ingestion	Dermal	Total
Arsenic		5.5E-07	1.1E-07	6.6E-07
Benzo(a)anthracene		2.9E-07	2.5E-07	5.4E-07
Benzo(a)pyrene		2.3E-06	2.0E-06	4.3E-06
Benzo(b)fluoranthene		1.6E-07	1.4E-07	2.9E-07
Benzo(k)fluoranthene		1.8E-08	1.5E-08	3.3E-08
Dibenzo(a,h)anthracene		7.3E-07	6.3E-07	1.4E-06
Indeno(1,2,3-cd)pyrene		1.2E-07	9.9E-08	2.1E-07
	Total	**4.2E-06**	**3.2E-06**	**7.4E-06**

Total Noncarcinogenic Hazard		Ingestion	Dermal	Total
Arsenic		3.5E-03	6.8E-04	4.1E-03
Phenanthrene		5.8E-05	4.9E-05	1.1E-04
1,2,3-Trichloropropane		7.9E-08	0.0E+00	7.9E-08
	Total	**0.0035**	**0.00073**	**0.0042**

Table A5a - Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to 6-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Incidental Soil Ingestion
Receptor: Utility Worker

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	7.21	137	1.0	5	25	1E-06	70	25,550	6.9E-08	1.5	1.0E-07
Benzo(a)anthracene	7.9	137	1.0	5	25	1E-06	70	25,550	7.6E-08	0.73	5.5E-08
Benzo(a)pyrene	6.1	137	1.0	5	25	1E-06	70	25,550	5.8E-08	7.3	4.3E-07
Benzo(b)fluoranthene	3.9	137	1.0	5	25	1E-06	70	25,550	3.7E-08	0.73	2.7E-08
Benzo(k)fluoranthene	4.5	137	1.0	5	25	1E-06	70	25,550	4.3E-08	0.073	3.1E-09
Dibenzo(a,h)anthracene	1.0	137	1.0	5	25	1E-06	70	25,550	9.6E-09	7.3	7.0E-08
Indeno(1,2,3-cd)pyrene	2.4	137	1.0	5	25	1E-06	70	25,550	2.3E-08	0.73	1.7E-08
										Total	**7.0E-07**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	7.21	137	1.0	5	25	1E-06	70	9,125	1.9E-07	0.0003	6.4E-04
Phenanthrene	17	137	1.0	5	25	1E-06	70	9,125	4.6E-07	0.04	1.1E-05
1,2,3-Trichloropropane	0.0029	137	1.0	5	25	1E-06	70	9,125	7.8E-11	0.006	1.3E-08
										Total	**6.6E-04**

Table A5b - Cancer and Non-Cancer Risks from Dermal Exposure to 1- to 6-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Dermal Contact
Receptor: Utility Worker

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	7.2	0.8	3,300	0.03	5	25	1E-06	70	25,550	4.0E-08	1.5	6.0E-08
Benzo(a)anthracene	7.9	0.8	3,300	0.13	5	25	1E-06	70	25,550	1.9E-07	0.73	1.4E-07
Benzo(a)pyrene	6.1	0.8	3,300	0.13	5	25	1E-06	70	25,550	1.5E-07	7.3	1.1E-06
Benzo(b)fluoranthene	3.9	0.8	3,300	0.13	5	25	1E-06	70	25,550	9.4E-08	0.73	6.8E-08
Benzo(k)fluoranthene	4.5	0.8	3,300	0.13	5	25	1E-06	70	25,550	1.1E-07	0.073	7.9E-09
Dibenzo(a,h)anthracene	1.0	0.8	3,300	0.13	5	25	1E-06	70	25,550	2.4E-08	7.3	1.8E-07
Indeno(1,2,3-cd)pyrene	2.4	0.8	3,300	0.13	5	25	1E-06	70	25,550	5.8E-08	0.73	4.2E-08
											Total	**1.6E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	7.21	0.8	3,300	0.03	5	25	1E-06	70	9,125	1.1E-07	0.0003	3.7E-04
Phenanthrene	17	0.8	3,300	0.13	5	25	1E-06	70	9,125	1.1E-06	0.04	2.9E-05
1,2,3-Trichloropropane	0.0029	0.8	3,300	0	5	25	1E-06	70	9,125	0.0E+00	0.006	0.0E+00
											Total	**4.0E-04**

Total Carcinogenic Risk		Ingestion	Dermal	Total
Arsenic		1.0E-07	6.0E-08	1.6E-07
Benzo(a)anthracene		5.5E-08	1.4E-07	1.9E-07
Benzo(a)pyrene		4.3E-07	1.1E-06	1.5E-06
Benzo(b)fluoranthene		2.7E-08	6.8E-08	9.6E-08
Benzo(k)fluoranthene		3.1E-09	7.9E-09	1.1E-08
Dibenzo(a,h)anthracene		7.0E-08	1.8E-07	2.5E-07
Indeno(1,2,3-cd)pyrene		1.7E-08	4.2E-08	5.9E-08
	Total	**7.0E-07**	**1.6E-06**	**2.3E-06**

Total Noncarcinogenic Hazard		Ingestion	Dermal	Total
Arsenic		6.4E-04	3.7E-04	1.0E-03
Phenanthrene		1.1E-05	2.9E-05	4.0E-05
1,2,3-Trichloropropane		1.3E-08	0.0E+00	1.3E-08
	Total	**0.00066**	**0.00040**	**0.0011**

Table A6a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 15-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Incidental Soil Ingestion
Receptor: Utility Worker

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	6.59	137	1.0	5	25	1E-06	70	25,550	6.3E-08	1.5	9.5E-08
Benzo(a)anthracene	20	137	1.0	5	25	1E-06	70	25,550	1.9E-07	0.73	1.4E-07
Benzo(a)pyrene	15	137	1.0	5	25	1E-06	70	25,550	1.4E-07	7.3	1.0E-06
Benzo(b)fluoranthene	13	137	1.0	5	25	1E-06	70	25,550	1.2E-07	0.73	9.1E-08
Benzo(k)fluoranthene	13	137	1.0	5	25	1E-06	70	25,550	1.2E-07	0.073	9.1E-09
Dibenzo(a,h)anthracene	2.7	137	1.0	5	25	1E-06	70	25,550	2.6E-08	7.3	1.9E-07
Indeno(1,2,3-cd)pyrene	5.9	137	1.0	5	25	1E-06	70	25,550	5.6E-08	0.73	4.1E-08
										Total	**1.6E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	6.59	137	1.0	5	25	1E-06	70	9,125	1.8E-07	0.0003	5.9E-04
Phenanthrene	47	137	1.0	5	25	1E-06	70	9,125	1.3E-06	0.04	3.2E-05
1,2,3-Trichloropropane	0.016	137	1.0	5	25	1E-06	70	9,125	4.3E-10	0.006	7.1E-08
										Total	**6.2E-04**

Table A6b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 15-Foot Soil in Parcels I9-9-21/I9-9-22
Pathway: Dermal Contact
Receptor: Utility Worker

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	6.59	0.8	3,300	0.03	5	25	1E-06	70	25,550	3.6E-08	1.5	5.5E-08
Benzo(a)anthracene	20	0.8	3,300	0.13	5	25	1E-06	70	25,550	4.8E-07	0.73	3.5E-07
Benzo(a)pyrene	15	0.8	3,300	0.13	5	25	1E-06	70	25,550	3.6E-07	7.3	2.6E-06
Benzo(b)fluoranthene	13	0.8	3,300	0.13	5	25	1E-06	70	25,550	3.1E-07	0.73	2.3E-07
Benzo(k)fluoranthene	13	0.8	3,300	0.13	5	25	1E-06	70	25,550	3.1E-07	0.073	2.3E-08
Dibenzo(a,h)anthracene	2.7	0.8	3,300	0.13	5	25	1E-06	70	25,550	6.5E-08	7.3	4.7E-07
Indeno(1,2,3-cd)pyrene	5.9	0.8	3,300	0.13	5	25	1E-06	70	25,550	1.4E-07	0.73	1.0E-07
											Total	**3.9E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	6.59	0.8	3,300	0.03	5	25	1E-06	70	9,125	1.0E-07	0.0003	3.4E-04
Phenanthrene	47	0.8	3,300	0.13	5	25	1E-06	70	9,125	3.2E-06	0.04	7.9E-05
1,2,3-Trichloropropane	0.016	0.8	3,300	0	5	25	1E-06	70	9,125	0.0E+00	0.006	0.0E+00
											Total	**4.2E-04**

Total Carcinogenic Risk		Ingestion	Dermal	Total
Arsenic		9.5E-08	5.5E-08	1.5E-07
Benzo(a)anthracene		1.4E-07	3.5E-07	4.9E-07
Benzo(a)pyrene		1.0E-06	2.6E-06	3.7E-06
Benzo(b)fluoranthene		9.1E-08	2.3E-07	3.2E-07
Benzo(k)fluoranthene		9.1E-09	2.3E-08	3.2E-08
Dibenzo(a,h)anthracene		1.9E-07	4.7E-07	6.6E-07
Indeno(1,2,3-cd)pyrene		4.1E-08	1.0E-07	1.4E-07
	Total	**1.6E-06**	**3.9E-06**	**5.5E-06**

Total Noncarcinogenic Hazard		Ingestion	Dermal	Total
Arsenic		5.9E-04	3.4E-04	9.3E-04
Phenanthrene		3.2E-05	7.9E-05	1.1E-04
1,2,3-Trichloropropane		7.1E-08	0.0E+00	7.1E-08
	Total	**0.00062**	**0.00042**	**0.0010**

Table A7a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil in I9-9-33
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.40	200	1.0	0.5	84	6	1E-06	15	25,550	5.8E-07	1.5	8.7E-07
Benzo(a)pyrene	0.25	200	1.0	0.5	84	6	1E-06	15	25,550	3.3E-08	7.3	2.4E-07
											Total	**1.1E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)		EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	4.40	200	1.0	0.5	84	6	1E-06	15	2,190	6.8E-06	0.0003	2.3E-02
Mercury	18.2	200	1.0	0.5	84	6	1E-06	15	2,190	2.8E-05	0.0003	9.3E-02
Sulfide	85.1	200	1.0	0.5	84	6	1E-06	15	2,190	1.3E-04	0.1	1.3E-03
Notes											**Total**	**1.2E-01**

Sulfide evaluated as carbon disulfide

Table A7b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil in Parcel I9-9-33
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.40	0.237	2,454	0.03	84	6	1E-06	15	25,550	1.0E-07	1.5	1.5E-07
Benzo(a)pyrene	0.25	0.237	2,454	0.13	84	6	1E-06	15	25,550	2.5E-08	7.3	1.8E-07
											Total	**3.3E-07**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	4.40	0.237	2,454	0.03	84	6	1E-06	15	2,190	1.2E-06	0.0003	3.9E-03
Mercury	18.2	0.237	2,454	0.006	84	6	1E-06	15	2,190	9.7E-07	0.0003	3.2E-03
Sulfide	85.1	0.237	2,454	0.03	84	6	1E-06	15	2,190	2.3E-05	0.1	2.3E-04
Notes											**Total**	**7.4E-03**

Sulfide evaluated as carbon disulfide

Table A7c - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil in Parcel I9-9-33
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.40	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.2E-07	1.5	1.8E-07
Benzo(a)pyrene	0.25	100	1.0	0.5	84	6	1E-06	36.8	25,550	6.7E-09	7.3	4.9E-08
											Total	**2.3E-07**

Table A7d - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil in Parcel I9-9-33
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.40	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	6.5E-08	1.5	9.8E-08
Benzo(a)pyrene	0.25	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.6E-08	7.3	1.2E-07
											Total	**2.2E-07**

Total Carcinogenic Risk		Ingestion	Dermal	Total
Arsenic		1.0E-06	2.5E-07	1.3E-06
Benzo(a)pyrene		2.9E-07	3.0E-07	5.9E-07
	Total	**1.3E-06**	**5.5E-07**	**1.9E-06**
Total Noncarcinogenic Hazard		Ingestion	Dermal	Total
Arsenic		2.3E-02	3.9E-03	2.6E-02
Mercury		9.3E-02	3.2E-03	9.6E-02
Sulfide		1.3E-03	2.3E-04	1.5E-03
	Total	**0.12**	**0.0074**	**0.12**

Table A8a - Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to 3-Foot Soil in I9-9-33
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/AT(

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.73	200	1.0	0.5	84	6	1E-06	15	25,550	6.2E-07	1.5	9.3E-07
Benzo(a)pyrene	0.37	200	1.0	0.5	84	6	1E-06	15	25,550	4.9E-08	7.3	3.6E-07
											Total	**1.3E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATn(

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)		EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	4.73	200	1.0	0.5	84	6	1E-06	15	2,190	7.3E-06	0.0003	2.4E-02
Mercury	25	200	1.0	0.5	84	6	1E-06	15	2,190	3.8E-05	0.0003	1.3E-01
Sulfide	247.00	200	1.0	0.5	84	6	1E-06	15	2,190	3.8E-04	0.1	3.8E-03
Note											**Total**	**1.6E-01**

Sulfide evaluated as carbon disulfide

Table A8b - Cancer and Non-Cancer Risks from Dermal Exposure to 1- to 3-Foot Soil in Parcel I9-9-33
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.73	0.237	2,454	0.03	84	6	1E-06	15	25,550	1.1E-07	1.5	1.6E-07
Benzo(a)pyrene	0.37	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.7E-08	7.3	2.7E-07
											Total	**4.3E-07**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	4.73	0.237	2,454	0.03	84	6	1E-06	15	2,190	1.3E-06	0.0003	4.2E-03
Mercury	25	0.237	2,454	0.006	84	6	1E-06	15	2,190	1.3E-06	0.0003	4.5E-03
Sulfide	247	0.237	2,454	0.03	84	6	1E-06	15	2,190	6.6E-05	0.1	6.6E-04
Note											**Total**	**9.3E-03**

Sulfide evaluated as carbon disulfide

Table A8c - Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to 3-Foot Soil in Parcel I9-9-33
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.73	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.3E-07	1.5	1.9E-07
Benzo(a)pyrene	0.37	100	1.0	0.5	84	6	1E-06	36.8	25,550	9.9E-09	7.3	7.2E-08
											Total	**2.6E-07**

Table A8d - Cancer and Non-Cancer Risks from Dermal Exposure to 1- to 3-Foot Soil in Parcel I9-9-33
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	4.73	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	7.0E-08	1.5	1.1E-07
Benzo(a)pyrene	0.37	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.4E-08	7.3	1.7E-07
											Total	**2.8E-07**

Total Carcinogenic Risk		Ingestion	Dermal	Total
Arsenic		1.1E-06	2.7E-07	1.4E-06
Benzo(a)pyrene		4.3E-07	4.4E-07	8.7E-07
	Total	**1.6E-06**	**7.1E-07**	**2.3E-06**
Total Noncarcinogenic Hazard		Ingestion	Dermal	Total
Arsenic		2.4E-02	4.2E-03	2.8E-02
Mercury		1.3E-01	4.5E-03	1.3E-01
Sulfide		3.8E-03	6.6E-04	4.5E-03
	Total	**0.16**	**0.0093**	**0.17**

Table A9a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil in Parcel I9-9-201
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	10.6	200	1.0	0.5	84	6	1E-06	15	25,550	1.4E-06	1.5	2.1E-06
Benzo(a)anthracene	1.2	200	1.0	0.5	84	6	1E-06	15	25,550	1.6E-07	0.73	1.2E-07
Benzo(a)pyrene	1.0	200	1.0	0.5	84	6	1E-06	15	25,550	1.3E-07	7.3	9.6E-07
Benzo(b)fluoranthene	0.81	200	1.0	0.5	84	6	1E-06	15	25,550	1.1E-07	0.73	7.8E-08
Benzo(k)fluoranthene	0.94	200	1.0	0.5	84	6	1E-06	15	25,550	1.2E-07	0.073	9.0E-09
Dibenzo(a,h)anthracene	0.25	200	1.0	0.5	84	6	1E-06	15	25,550	3.3E-08	7.3	2.4E-07
Indeno(1,2,3-cd)pyrene	0.59	200	1.0	0.5	84	6	1E-06	15	25,550	7.8E-08	0.73	5.7E-08
											Total	**3.5E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	10.6	200	1.0	0.5	84	6	1E-06	15	2,190	1.6E-05	0.0003	5.4E-02
Phenanthrene	1.53	200	1.0	0.5	84	6	1E-06	15	2,190	2.3E-06	0.04	5.9E-05
											Total	**5.4E-02**

Table A9b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil in Parcel I9-9-201
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years
CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	10.6	0.237	2,454	0.03	84	6	1E-06	15	25,550	2.4E-07	1.5	3.6E-07
Benzo(a)anthracene	1.2	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.2E-07	0.73	8.7E-08
Benzo(a)pyrene	1.0	0.237	2,454	0.13	84	6	1E-06	15	25,550	9.9E-08	7.3	7.3E-07
Benzo(b)fluoranthene	0.8	0.237	2,454	0.13	84	6	1E-06	15	25,550	8.1E-08	0.73	5.9E-08
Benzo(k)fluoranthene	0.94	0.237	2,454	0.13	84	6	1E-06	15	25,550	9.3E-08	0.073	6.8E-09
Dibenzo(a,h)anthracene	0.25	0.237	2,454	0.13	84	6	1E-06	15	25,550	2.5E-08	7.3	1.8E-07
Indeno(1,2,3-cd)pyrene	0.59	0.237	2,454	0.13	84	6	1E-06	15	25,550	5.9E-08	0.73	4.3E-08
											Total	**1.5E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	10.6	0.237	2,454	0.03	84	6	1E-06	15	2,190	2.8E-06	0.0003	9.5E-03
Phenanthrene	1.53	0.237	2,454	0.13	84	6	1E-06	15	2,190	1.8E-06	0.04	4.4E-05
											Total	**9.5E-03**

Table A9c - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil in Parcel I9-9-201
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	10.6	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.8E-07	1.5	4.3E-07
Benzo(a)anthracene	1.2	100	1.0	0.5	84	6	1E-06	36.8	25,550	3.2E-08	0.73	2.3E-08
Benzo(a)pyrene	1.0	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.7E-08	7.3	2.0E-07
Benzo(b)fluoranthene	0.8	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.2E-08	0.73	1.6E-08
Benzo(k)fluoranthene	0.94	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.5E-08	0.073	1.8E-09
Dibenzo(a,h)anthracene	0.25	100	1.0	0.5	84	6	1E-06	36.8	25,550	6.7E-09	7.3	4.9E-08
Indeno(1,2,3-cd)pyrene	0.59	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.6E-08	0.73	1.2E-08
											Total	**7.2E-07**

Table A9d - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil in Parcel I9-9-201
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	10.6	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	1.6E-07	1.5	2.4E-07
Benzo(a)anthracene	1.2	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	7.7E-08	0.73	5.6E-08
Benzo(a)pyrene	1.0	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	6.4E-08	7.3	4.7E-07
Benzo(b)fluoranthene	0.8	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	5.2E-08	0.73	3.8E-08
Benzo(k)fluoranthene	0.94	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	6.0E-08	0.073	4.4E-09
Dibenzo(a,h)anthracene	0.25	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.6E-08	7.3	1.2E-07
Indeno(1,2,3-cd)pyrene	0.59	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	3.8E-08	0.73	2.8E-08
											Total	**9.5E-07**

Total Carcinogenic Risk		Ingestion 1-13 yrs	Dermal 1-13 yrs	Total
Arsenic		2.5E-06	6.0E-07	3.1E-06
Benzo(a)anthracene		1.4E-07	1.4E-07	2.8E-07
Benzo(a)pyrene		1.2E-06	1.2E-06	2.4E-06
Benzo(b)fluoranthene		9.4E-08	9.7E-08	1.9E-07
Benzo(k)fluoranthene		1.1E-08	1.1E-08	2.2E-08
Dibenzo(a,h)anthracene		2.9E-07	3.0E-07	5.9E-07
Indeno(1,2,3-cd)pyrene		6.8E-08	7.1E-08	1.4E-07
	Total	**4.3E-06**	**2.4E-06**	**6.7E-06**

Total Noncarcinogenic Hazard		Ingestion 1-6 yrs	Dermal 1-6 yrs	Total
Arsenic		5.4E-02	9.5E-03	6.4E-02
Phenanthrene		5.9E-05	4.4E-05	1.0E-04
	Total	**0.054**	**0.0095**	**0.064**

Table A10a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 3-Foot Soil in Parcel I9-9-201
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	8.23	200	1.0	0.5	84	6	1E-06	15	25,550	1.1E-06	1.5	1.6E-06
Benzo(a)anthracene	1.0	200	1.0	0.5	84	6	1E-06	15	25,550	1.3E-07	0.73	9.6E-08
Benzo(a)pyrene	0.83	200	1.0	0.5	84	6	1E-06	15	25,550	1.1E-07	7.3	8.0E-07
Benzo(b)fluoranthene	0.67	200	1.0	0.5	84	6	1E-06	15	25,550	8.8E-08	0.73	6.4E-08
Benzo(k)fluoranthene	0.76	200	1.0	0.5	84	6	1E-06	15	25,550	1.0E-07	0.073	7.3E-09
Dibenzo(a,h)anthracene	0.23	200	1.0	0.5	84	6	1E-06	15	25,550	3.0E-08	7.3	2.2E-07
Indeno(1,2,3-cd)pyrene	0.47	200	1.0	0.5	84	6	1E-06	15	25,550	6.2E-08	0.73	4.5E-08
											Total	**2.9E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	8.23	200	1.0	0.5	84	6	1E-06	15	2,190	1.3E-05	0.0003	4.2E-02
Phenanthrene	1.3	200	1.0	0.5	84	6	1E-06	15	2,190	2.0E-06	0.04	5.0E-05
											Total	**4.2E-02**

Table A10b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 3-Foot Soil in Parcel I9-9-201
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	8.23	0.237	2,454	0.03	84	6	1E-06	15	25,550	1.9E-07	1.5	2.8E-07
Benzo(a)anthracene	1.0	0.237	2,454	0.13	84	6	1E-06	15	25,550	9.9E-08	0.73	7.3E-08
Benzo(a)pyrene	0.83	0.237	2,454	0.13	84	6	1E-06	15	25,550	8.3E-08	7.3	6.0E-07
Benzo(b)fluoranthene	0.67	0.237	2,454	0.13	84	6	1E-06	15	25,550	6.7E-08	0.73	4.9E-08
Benzo(k)fluoranthene	0.76	0.237	2,454	0.13	84	6	1E-06	15	25,550	7.6E-08	0.073	5.5E-09
Dibenzo(a,h)anthracene	0.23	0.237	2,454	0.13	84	6	1E-06	15	25,550	2.3E-08	7.3	1.7E-07
Indeno(1,2,3-cd)pyrene	0.47	0.237	2,454	0.13	84	6	1E-06	15	25,550	4.7E-08	0.73	3.4E-08
											Total	**1.2E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	8.23	0.237	2,454	0.03	84	6	1E-06	15	2,190	2.2E-06	0.0003	7.3E-03
Phenanthrene	1.3	0.237	2,454	0.13	84	6	1E-06	15	2,190	1.5E-06	0.04	3.8E-05
											Total	**7.4E-03**

Table A10c - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 3-Foot Soil in Parcel I9-9-201
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	8.23	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.2E-07	1.5	3.3E-07
Benzo(a)anthracene	1.0	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.7E-08	0.73	2.0E-08
Benzo(a)pyrene	0.83	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.2E-08	7.3	1.6E-07
Benzo(b)fluoranthene	0.67	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.8E-08	0.73	1.3E-08
Benzo(k)fluoranthene	0.76	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.0E-08	0.073	1.5E-09
Dibenzo(a,h)anthracene	0.23	100	1.0	0.5	84	6	1E-06	36.8	25,550	6.2E-09	7.3	4.5E-08
Indeno(1,2,3-cd)pyrene	0.47	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.3E-08	0.73	9.2E-09
											Total	**5.8E-07**

Table A10d - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 3-Foot Soil in Parcel I9-9-201
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	8.23	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	1.2E-07	1.5	1.8E-07
Benzo(a)anthracene	1.0	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	6.4E-08	0.73	4.7E-08
Benzo(a)pyrene	0.83	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	5.3E-08	7.3	3.9E-07
Benzo(b)fluoranthene	0.67	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	4.3E-08	0.73	3.1E-08
Benzo(k)fluoranthene	0.76	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	4.9E-08	0.073	3.6E-09
Dibenzo(a,h)anthracene	0.23	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.5E-08	7.3	1.1E-07
Indeno(1,2,3-cd)pyrene	0.47	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	3.0E-08	0.73	2.2E-08
											Total	**7.8E-07**

Total Carcinogenic Risk		Ingestion 1-13 yrs	Dermal 1-13 yrs	Total
Arsenic		2.0E-06	4.7E-07	2.4E-06
Benzo(a)anthracene		1.2E-07	1.2E-07	2.4E-07
Benzo(a)pyrene		9.6E-07	9.9E-07	2.0E-06
Benzo(b)fluoranthene		7.7E-08	8.0E-08	1.6E-07
Benzo(k)fluoranthene		8.8E-09	9.1E-09	1.8E-08
Dibenzo(a,h)anthracene		2.7E-07	2.7E-07	5.4E-07
Indeno(1,2,3-cd)pyrene		5.4E-08	5.6E-08	1.1E-07
	Total	**3.4E-06**	**2.0E-06**	**5.4E-06**

Total Noncarcinogenic Hazard		Ingestion 1-6 yrs	Dermal 1-6 yrs	Total
Arsenic		4.2E-02	7.3E-03	4.9E-02
Phenanthrene		5.0E-05	3.8E-05	8.8E-05
	Total	**0.042**	**0.007**	**0.050**

Table A11a - Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to 3-Foot Soil in Parcel I9-9-201
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	5.89	200	1.0	0.5	84	6	1E-06	15	25,550	7.7E-07	1.5	1.2E-06
Benzo(a)anthracene	0.79	200	1.0	0.5	84	6	1E-06	15	25,550	1.0E-07	0.73	7.6E-08
Benzo(a)pyrene	0.63	200	1.0	0.5	84	6	1E-06	15	25,550	8.3E-08	7.3	6.0E-07
Benzo(b)fluoranthene	0.54	200	1.0	0.5	84	6	1E-06	15	25,550	7.1E-08	0.73	5.2E-08
Benzo(k)fluoranthene	0.58	200	1.0	0.5	84	6	1E-06	15	25,550	7.6E-08	0.073	5.6E-09
Dibenzo(a,h)anthracene	0.21	200	1.0	0.5	84	6	1E-06	15	25,550	2.8E-08	7.3	2.0E-07
Indeno(1,2,3-cd)pyrene	0.35	200	1.0	0.5	84	6	1E-06	15	25,550	4.6E-08	0.73	3.4E-08
											Total	**2.1E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	5.89	200	1.0	0.5	84	6	1E-06	15	2,190	9.0E-06	0.0003	3.0E-02
Phenanthrene	1.1	200	1.0	0.5	84	6	1E-06	15	2,190	1.7E-06	0.04	4.2E-05
											Total	**3.0E-02**

Table A11b - Cancer and Non-Cancer Risks from Dermal Exposure to 1- to 3-Foot Soil in Parcel I9-9-201
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	5.89	0.237	2,454	0.03	84	6	1E-06	15	25,550	1.4E-07	1.5	2.0E-07
Benzo(a)anthracene	0.79	0.237	2,454	0.13	84	6	1E-06	15	25,550	7.9E-08	0.73	5.7E-08
Benzo(a)pyrene	0.63	0.237	2,454	0.13	84	6	1E-06	15	25,550	6.3E-08	7.3	4.6E-07
Benzo(b)fluoranthene	0.54	0.237	2,454	0.13	84	6	1E-06	15	25,550	5.4E-08	0.73	3.9E-08
Benzo(k)fluoranthene	0.58	0.237	2,454	0.13	84	6	1E-06	15	25,550	5.8E-08	0.073	4.2E-09
Dibenzo(a,h)anthracene	0.21	0.237	2,454	0.13	84	6	1E-06	15	25,550	2.1E-08	7.3	1.5E-07
Indeno(1,2,3-cd)pyrene	0.35	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.5E-08	0.73	2.5E-08
											Total	**9.4E-07**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Arsenic	5.89	0.237	2,454	0.03	84	6	1E-06	15	2,190	1.6E-06	0.0003	5.3E-03
Phenanthrene	1.1	0.237	2,454	0.13	84	6	1E-06	15	2,190	1.3E-06	0.04	3.2E-05
											Total	**5.3E-03**

Table A11c - Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to 3-Foot Soil in Parcel I9-9-201
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	5.89	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.6E-07	1.5	2.4E-07
Benzo(a)anthracene	0.79	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.1E-08	0.73	1.5E-08
Benzo(a)pyrene	0.63	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.7E-08	7.3	1.2E-07
Benzo(b)fluoranthene	0.54	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.4E-08	0.73	1.1E-08
Benzo(k)fluoranthene	0.58	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.6E-08	0.073	1.1E-09
Dibenzo(a,h)anthracene	0.21	100	1.0	0.5	84	6	1E-06	36.8	25,550	5.6E-09	7.3	4.1E-08
Indeno(1,2,3-cd)pyrene	0.35	100	1.0	0.5	84	6	1E-06	36.8	25,550	9.4E-09	0.73	6.8E-09
											Total	**4.4E-07**

Table A11d - Cancer and Non-Cancer Risks from Dermal Exposure to 1- to 3-Foot Soil in Parcel I9-9-201
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years
CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	5.89	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	8.7E-08	1.5	1.3E-07
Benzo(a)anthracene	0.79	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	5.1E-08	0.73	3.7E-08
Benzo(a)pyrene	0.63	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	4.1E-08	7.3	3.0E-07
Benzo(b)fluoranthene	0.54	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	3.5E-08	0.73	2.5E-08
Benzo(k)fluoranthene	0.58	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	3.7E-08	0.073	2.7E-09
Dibenzo(a,h)anthracene	0.21	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.4E-08	7.3	9.9E-08
Indeno(1,2,3-cd)pyrene	0.35	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.3E-08	0.73	1.6E-08
											Total	**6.1E-07**

Total Carcinogenic Risk		Ingestion 1-13 yrs	Dermal 1-13 yrs	Total
Arsenic		1.4E-06	3.3E-07	1.7E-06
Benzo(a)anthracene		9.1E-08	9.4E-08	1.9E-07
Benzo(a)pyrene		7.3E-07	7.5E-07	1.5E-06
Benzo(b)fluoranthene		6.2E-08	6.5E-08	1.3E-07
Benzo(k)fluoranthene		6.7E-09	6.9E-09	1.4E-08
Dibenzo(a,h)anthracene		2.4E-07	2.5E-07	4.9E-07
Indeno(1,2,3-cd)pyrene		4.0E-08	4.2E-08	8.2E-08
	Total	**2.6E-06**	**1.5E-06**	**4.1E-06**

Total Noncarcinogenic Hazard		Ingestion 1-6 yrs	Dermal 1-6 yrs	Total
Arsenic		3.0E-02	5.3E-03	3.5E-02
Phenanthrene		4.2E-05	3.2E-05	7.4E-05
	Total	**0.030**	**0.005**	**0.035**

Table A12a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil in RA-3
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	9.51	200	1.0	0.5	84	6	1E-06	15	25,550	1.3E-06	1.5	1.9E-06
Benzo(a)anthracene	2.6	200	1.0	0.5	84	6	1E-06	15	25,550	3.4E-07	0.73	2.5E-07
Benzo(a)pyrene	2.3	200	1.0	0.5	84	6	1E-06	15	25,550	3.0E-07	7.3	2.2E-06
Benzo(b)fluoranthene	3.0	200	1.0	0.5	84	6	1E-06	15	25,550	3.9E-07	0.73	2.9E-07
Benzo(k)fluoranthene	1.1	200	1.0	0.5	84	6	1E-06	15	25,550	1.4E-07	0.073	1.1E-08
Chrysene	3.1	200	1.0	0.5	84	6	1E-06	15	25,550	4.1E-07	0.0073	3.0E-09
Dibenzo(a,h)anthracene	0.51	200	1.0	0.5	84	6	1E-06	15	25,550	6.7E-08	7.3	4.9E-07
Indeno(1,2,3-cd)pyrene	1.5	200	1.0	0.5	84	6	1E-06	15	25,550	2.0E-07	0.73	1.4E-07
											Total	**5.3E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Acetophenone	0.28	200	1.0	0.5	84	6	1.00E-06	15	2190	4.3E-07	0.1	4.3E-06
Arsenic	9.51	200	1.0	0.5	84	6	1E-06	15	2,190	1.5E-05	0.0003	4.9E-02
Benzo(g,h,i)perylene	1.9	200	1.0	0.5	84	6	1E-06	15	2,190	2.9E-06	0.04	7.3E-05
Naphthalene	0.47	200	1.0	0.5	84	6	1E-06	15	2,190	7.2E-07	0.02	3.6E-05
Phenanthrene	2.9	200	1.0	0.5	84	6	1E-06	15	2,190	4.4E-06	0.04	1.1E-04
Sulfide	337	200	1.0	0.5	84	6	1E-06	15	2,190	5.2E-04	0.1	5.2E-03
Notes:											**Total**	**5.4E-02**

Sulfide evaluated as carbon disulfide

Table A12b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil in RA-3
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg-d)^{-1}$	Risk
Arsenic	9.51	0.237	2,454	0.03	84	6	1E-06	15	25,550	2.2E-07	1.5	3.3E-07
Benzo(a)anthracene	2.6	0.237	2,454	0.13	84	6	1E-06	15	25,550	2.6E-07	0.73	1.9E-07
Benzo(a)pyrene	2.3	0.237	2,454	0.13	84	6	1E-06	15	25,550	2.3E-07	7.3	1.7E-06
Benzo(b)fluoranthene	3.0	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.0E-07	0.73	2.2E-07
Benzo(k)fluoranthene	1.1	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.1E-07	0.073	8.0E-09
Chrysene	3.1	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.1E-07	0.0073	2.3E-09
Dibenzo(a,h)anthracene	0.51	0.237	2,454	0.13	84	6	1E-06	15	25,550	5.1E-08	7.3	3.7E-07
Indeno(1,2,3-cd)pyrene	1.5	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.5E-07	0.73	1.1E-07
											Total	**2.9E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Acetophenone	0.28	0.237	2,454	0.1	84	6	1E-06	15	2,190	2.5E-07	0.1	2.5E-06
Arsenic	9.51	0.237	2,454	0.03	84	6	1E-06	15	2,190	2.5E-06	0.0003	8.5E-03
Benzo(g,h,i)perylene	1.9	0.237	2,454	0.13	84	6	1E-06	15	2,190	2.2E-06	0.04	5.5E-05
Naphthalene	0.47	0.237	2,454	0.13	84	6	1E-06	15	2,190	5.5E-07	0.02	2.7E-05
Phenanthrene	2.9	0.237	2,454	0.13	84	6	1E-06	15	2,190	3.4E-06	0.04	8.4E-05
Sulfide	337	0.237	2,454	0.1	84	6	1E-06	15	2,190	3.0E-04	0.1	3.0E-03
											Total	**1.2E-02**

Notes:
Sulfide evaluated as carbon disulfide

Table A12c - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 1-Foot Soil in RA-3
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years

CARCINOGENIC

Risk = CDI x CSF

CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	9.51	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.5E-07	1.5	3.8E-07
Benzo(a)anthracene	2.6	100	1.0	0.5	84	6	1E-06	36.8	25,550	7.0E-08	0.73	5.1E-08
Benzo(a)pyrene	2.3	100	1.0	0.5	84	6	1E-06	36.8	25,550	6.2E-08	7.3	4.5E-07
Benzo(b)fluoranthene	3.0	100	1.0	0.5	84	6	1E-06	36.8	25,550	8.0E-08	0.73	5.9E-08
Benzo(k)fluoranthene	1.1	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.9E-08	0.073	2.2E-09
Chrysene	3.1	100	1.0	0.5	84	6	1E-06	36.8	25,550	8.3E-08	0.0073	6.1E-10
Dibenzo(a,h)anthracene	0.51	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.4E-08	7.3	1.0E-07
Indeno(1,2,3-cd)pyrene	1.5	100	1.0	0.5	84	6	1E-06	36.8	25,550	4.0E-08	0.73	2.9E-08
											Total	**1.1E-06**

Table A12d - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 1-Foot Soil in RA-3
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years

CARCINOGENIC

Risk = CDI x CSF

CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg-d)^{-1}$	Risk
Arsenic	9.51	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	1.4E-07	1.5	2.1E-07
Benzo(a)anthracene	2.6	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.7E-07	0.73	1.2E-07
Benzo(a)pyrene	2.3	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.5E-07	7.3	1.1E-06
Benzo(b)fluoranthene	3.0	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.9E-07	0.73	1.4E-07
Benzo(k)fluoranthene	1.1	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	7.1E-08	0.073	5.2E-09
Chrysene	3.1	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.0E-07	0.0073	1.5E-09
Dibenzo(a,h)anthracene	0.51	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	3.3E-08	7.3	2.4E-07
Indeno(1,2,3-cd)pyrene	1.5	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	9.6E-08	0.73	7.0E-08
											Total	**1.9E-06**

Total Carcinogenic Risk		Ingestion 1-13 yrs	Dermal 1-13 yrs	Total
Arsenic		2.3E-06	5.4E-07	2.8E-06
Benzo(a)anthracene		3.0E-07	3.1E-07	6.1E-07
Benzo(a)pyrene		2.7E-06	2.7E-06	5.4E-06
Benzo(b)fluoranthene		3.5E-07	3.6E-07	7.1E-07
Benzo(k)fluoranthene		1.3E-08	1.3E-08	2.6E-08
Chrysene		3.6E-09	3.7E-09	7.3E-09
Dibenzo(a,h)anthracene		5.9E-07	6.1E-07	1.2E-06
Indeno(1,2,3-cd)pyrene		1.7E-07	1.8E-07	3.5E-07
	Total	**6.3E-06**	**4.8E-06**	**1.1E-05**

Total Noncarcinogenic Hazard		Ingestion 1-6 yrs	Dermal 1-6 yrs	Total
Acetophenone		4.3E-06	2.5E-06	6.8E-06
Arsenic		4.9E-02	8.5E-03	5.7E-02
Benzo(g,h,i)perylene		7.3E-05	5.5E-05	1.3E-04
Naphthalene		3.6E-05	2.7E-05	6.3E-05
Phenanthrene		1.1E-04	8.4E-05	2.0E-04
Sulfide		5.2E-03	3.0E-03	8.2E-03
	Total	**0.054**	**0.012**	**0.066**

Table A13a - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 3-Foot Soil in RA-3
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	9.20	200	1.0	0.5	84	6	1E-06	15	25,550	1.2E-06	1.5	1.8E-06
Benzo(a)anthracene	3.3	200	1.0	0.5	84	6	1E-06	15	25,550	4.3E-07	0.73	3.2E-07
Benzo(a)pyrene	1.9	200	1.0	0.5	84	6	1E-06	15	25,550	2.5E-07	7.3	1.8E-06
Benzo(b)fluoranthene	3.7	200	1.0	0.5	84	6	1E-06	15	25,550	4.9E-07	0.73	3.6E-07
Benzo(k)fluoranthene	1.4	200	1.0	0.5	84	6	1E-06	15	25,550	1.8E-07	0.073	1.3E-08
Chrysene	3.6	200	1.0	0.5	84	6	1E-06	15	25,550	4.7E-07	0.0073	3.5E-09
Dibenzo(a,h)anthracene	0.45	200	1.0	0.5	84	6	1E-06	15	25,550	5.9E-08	7.3	4.3E-07
Indeno(1,2,3-cd)pyrene	1.8	200	1.0	0.5	84	6	1E-06	15	25,550	2.4E-07	0.73	1.7E-07
											Total	**4.9E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Acetophenone	0.25	200	1.0	0.5	84	6	1E-06	15	2,190	3.8E-07	0.1	3.8E-06
Arsenic	9.20	200	1.0	0.5	84	6	1E-06	15	2,190	1.4E-05	0.0003	4.7E-02
Benzo(g,h,i)perylene	2.0	200	1.0	0.5	84	6	1E-06	15	2,190	3.1E-06	0.04	7.7E-05
Naphthalene	0.54	200	1.0	0.5	84	6	1E-06	15	2,190	8.3E-07	0.02	4.1E-05
Phenanthrene	4.5	200	1.0	0.5	84	6	1E-06	15	2,190	6.9E-06	0.04	1.7E-04
Sulfide	303	200	1.0	0.5	84	6	1E-06	15	2,190	4.6E-04	0.1	4.6E-03
											Total	**5.2E-02**

Notes:
Sulfide evaluated as carbon disulfide

Table A13b - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 3-Foot Soil in RA-3
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg-d)^{-1}$	Risk
Arsenic	9.20	0.237	2,454	0.03	84	6	1E-06	15	25,550	2.1E-07	1.5	3.2E-07
Benzo(a)anthracene	3.3	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.3E-07	0.73	2.4E-07
Benzo(a)pyrene	1.9	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.9E-07	7.3	1.4E-06
Benzo(b)fluoranthene	3.7	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.7E-07	0.73	2.7E-07
Benzo(k)fluoranthene	1.4	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.4E-07	0.073	1.0E-08
Chrysene	3.6	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.6E-07	0.0073	2.6E-09
Dibenzo(a,h)anthracene	0.45	0.237	2,454	0.13	84	6	1E-06	15	25,550	4.5E-08	7.3	3.3E-07
Indeno(1,2,3-cd)pyrene	1.8	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.8E-07	0.73	1.3E-07
											Total	**2.7E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose[b] (mg/kg-d)	HQ Hazard Quotient
Acetophenone	0.25	0.237	2,454	0.1	84	6	1E-06	15	2,190	2.2E-07	0.1	2.2E-06
Arsenic	9.20	0.237	2,454	0.03	84	6	1E-06	15	2,190	2.5E-06	0.0003	8.2E-03
Benzo(g,h,i)perylene	2.0	0.237	2,454	0.13	84	6	1E-06	15	2,190	2.3E-06	0.04	5.8E-05
Naphthalene	0.54	0.237	2,454	0.13	84	6	1E-06	15	2,190	6.3E-07	0.02	3.1E-05
Phenanthrene	4.5	0.237	2,454	0.13	84	6	1E-06	15	2,190	5.2E-06	0.04	1.3E-04
Sulfide	303	0.237	2,454	0.1	84	6	1E-06	15	2,190	2.7E-04	0.1	2.7E-03
											Total	**1.1E-02**

Notes:
Sulfide evaluated as carbon disulfide

Table A13c - Cancer and Non-Cancer Risks from Ingestion Exposure to 0- to 3-Foot Soil in RA-3
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years

CARCINOGENIC

Risk = CDI x CSF

CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	9.20	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.5E-07	1.5	3.7E-07
Benzo(a)anthracene	3.3	100	1.0	0.5	84	6	1E-06	36.8	25,550	8.8E-08	0.73	6.5E-08
Benzo(a)pyrene	1.9	100	1.0	0.5	84	6	1E-06	36.8	25,550	5.1E-08	7.3	3.7E-07
Benzo(b)fluoranthene	3.7	100	1.0	0.5	84	6	1E-06	36.8	25,550	9.9E-08	0.73	7.2E-08
Benzo(k)fluoranthene	1.4	100	1.0	0.5	84	6	1E-06	36.8	25,550	3.8E-08	0.073	2.7E-09
Chrysene	3.6	100	1.0	0.5	84	6	1E-06	36.8	25,550	9.6E-08	0.0073	7.0E-10
Dibenzo(a,h)anthracene	0.45	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.2E-08	7.3	8.8E-08
Indeno(1,2,3-cd)pyrene	1.8	100	1.0	0.5	84	6	1E-06	36.8	25,550	4.8E-08	0.73	3.5E-08
											Total	**1.0E-06**

Table A13d - Cancer and Non-Cancer Risks from Dermal Exposure to 0- to 3-Foot Soil in RA-3
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor[a] $(mg/kg-d)^{-1}$	Risk
Arsenic	9.20	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	1.4E-07	1.5	2.0E-07
Benzo(a)anthracene	3.3	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.1E-07	0.73	1.5E-07
Benzo(a)pyrene	1.9	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.2E-07	7.3	8.9E-07
Benzo(b)fluoranthene	3.7	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.4E-07	0.73	1.7E-07
Benzo(k)fluoranthene	1.4	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	9.0E-08	0.073	6.6E-09
Chrysene	3.6	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.3E-07	0.0073	1.7E-09
Dibenzo(a,h)anthracene	0.45	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.9E-08	7.3	2.1E-07
Indeno(1,2,3-cd)pyrene	1.8	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.2E-07	0.73	8.4E-08
											Total	**1.7E-06**

Total Carcinogenic Risk		Ingestion 1-13 yrs	Dermal 1-13 yrs	Total
Arsenic		2.2E-06	5.2E-07	2.7E-06
Benzo(a)anthracene		3.8E-07	3.9E-07	7.8E-07
Benzo(a)pyrene		2.2E-06	2.3E-06	4.5E-06
Benzo(b)fluoranthene		4.3E-07	4.4E-07	8.7E-07
Benzo(k)fluoranthene		1.6E-08	1.7E-08	3.3E-08
Chrysene		4.2E-09	4.3E-09	8.5E-09
Dibenzo(a,h)anthracene		5.2E-07	5.4E-07	1.1E-06
Indeno(1,2,3-cd)pyrene		2.1E-07	2.2E-07	4.2E-07
	Total	**5.9E-06**	**4.4E-06**	**1.0E-05**

Total Noncarcinogenic Hazard		Ingestion 1-6 yrs	Dermal 1-6 yrs	Total
Acetophenone		3.8E-06	2.2E-06	6.1E-06
Arsenic		4.7E-02	8.2E-03	5.5E-02
Benzo(g,h,i)perylene		7.7E-05	5.8E-05	1.3E-04
Naphthalene		4.1E-05	3.1E-05	7.3E-05
Phenanthrene		1.7E-04	1.3E-04	3.0E-04
Sulfide		4.6E-03	2.7E-03	7.4E-03
	Total	**0.052**	**0.011**	**0.063**

Table A14a - Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to 3-Foot Soil in RA-3
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	8.83	200	1.0	0.5	84	6	1E-06	15	25,550	1.2E-06	1.5	1.7E-06
Benzo(a)anthracene	4.0	200	1.0	0.5	84	6	1E-06	15	25,550	5.3E-07	0.73	3.8E-07
Benzo(a)pyrene	1.5	200	1.0	0.5	84	6	1E-06	15	25,550	2.0E-07	7.3	1.4E-06
Benzo(b)fluoranthene	4.4	200	1.0	0.5	84	6	1E-06	15	25,550	5.8E-07	0.73	4.2E-07
Benzo(k)fluoranthene	1.7	200	1.0	0.5	84	6	1E-06	15	25,550	2.2E-07	0.073	1.6E-08
Chrysene	4.2	200	1.0	0.5	84	6	1E-06	15	25,550	5.5E-07	0.0073	4.0E-09
Dibenzo(a,h)anthracene	0.38	200	1.0	0.5	84	6	1E-06	15	25,550	5.0E-08	7.3	3.6E-07
Indeno(1,2,3-cd)pyrene	2.1	200	1.0	0.5	84	6	1E-06	15	25,550	2.8E-07	0.73	2.0E-07
											Total	**4.6E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Acetophenone	0.21	200	1.0	0.5	84	6	1E-06	15	2,190	3.2E-07	0.1	3.2E-06
Arsenic	8.83	200	1.0	0.5	84	6	1E-06	15	2,190	1.4E-05	0.0003	4.5E-02
Benzo(g,h,i)perylene	2.2	200	1.0	0.5	84	6	1E-06	15	2,190	3.4E-06	0.04	8.4E-05
Naphthalene	0.61	200	1.0	0.5	84	6	1E-06	15	2,190	9.4E-07	0.02	4.7E-05
Phenanthrene	6.1	200	1.0	0.5	84	6	1E-06	15	2,190	9.4E-06	0.04	2.3E-04
Sulfide	264	200	1.0	0.5	84	6	1E-06	15	2,190	4.1E-04	0.1	4.1E-03
											Total	**5.0E-02**

Notes:
Sulfide evaluated as carbon disulfide

Table A14b - Cancer and Non-Cancer Risks from Dermal Exposure to 1- to 3-Foot Soil in RA-3
Pathway: Dermal Contact
Receptor: Child Recreational User - 1-6 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg-d)^{-1}$	Risk
Arsenic	8.83	0.237	2,454	0.03	84	6	1E-06	15	25,550	2.0E-07	1.5	3.0E-07
Benzo(a)anthracene	4.0	0.237	2,454	0.13	84	6	1E-06	15	25,550	4.0E-07	0.73	2.9E-07
Benzo(a)pyrene	1.5	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.5E-07	7.3	1.1E-06
Benzo(b)fluoranthene	4.4	0.237	2,454	0.13	84	6	1E-06	15	25,550	4.4E-07	0.73	3.2E-07
Benzo(k)fluoranthene	1.7	0.237	2,454	0.13	84	6	1E-06	15	25,550	1.7E-07	0.073	1.2E-08
Chrysene	4.2	0.237	2,454	0.13	84	6	1E-06	15	25,550	4.2E-07	0.0073	3.0E-09
Dibenzo(a,h)anthracene	0.38	0.237	2,454	0.13	84	6	1E-06	15	25,550	3.8E-08	7.3	2.8E-07
Indeno(1,2,3-cd)pyrene	2.1	0.237	2,454	0.13	84	6	1E-06	15	25,550	2.1E-07	0.73	1.5E-07
											Total	**2.4E-06**

NONCARCINOGENIC
HQ = CDI/RfD
CDI = Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATnc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATnc Averaging Time Noncarcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	RfD Reference Dose (mg/kg-d)	HQ Hazard Quotient
Acetophenone	0.21	0.237	2,454	0.1	84	6	1E-06	15	2,190	1.9E-07	0.1	1.9E-06
Arsenic	8.83	0.237	2,454	0.03	84	6	1E-06	15	2,190	2.4E-06	0.0003	7.9E-03
Benzo(g,h,i)perylene	2.2	0.237	2,454	0.13	84	6	1E-06	15	2,190	2.6E-06	0.04	6.4E-05
Naphthalene	0.61	0.237	2,454	0.13	84	6	1E-06	15	2,190	7.1E-07	0.02	3.5E-05
Phenanthrene	6.1	0.237	2,454	0.13	84	6	1E-06	15	2,190	7.1E-06	0.04	1.8E-04
Sulfide	264	0.237	2,454	0.1	84	6	1E-06	15	2,190	2.4E-04	0.1	2.4E-03
											Total	**1.1E-02**

Notes:
Sulfide evaluated as carbon disulfide

Table A14c - Cancer and Non-Cancer Risks from Ingestion Exposure to 1- to 3-Foot Soil in RA-3
Pathway: Incidental Soil Ingestior
Receptor: Child Recreational User - 7-13 Years

CARCINOGENIC

Risk = CDI x CSF

CDI = Cs x IgR x OA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	IgR Ingestion Rate (mg/d)	OA Oral Absorption (unitless)	FR Fraction from Site (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	8.83	100	1.0	0.5	84	6	1E-06	36.8	25,550	2.4E-07	1.5	3.5E-07
Benzo(a)anthracene	4.0	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.1E-07	0.73	7.8E-08
Benzo(a)pyrene	1.5	100	1.0	0.5	84	6	1E-06	36.8	25,550	4.0E-08	7.3	2.9E-07
Benzo(b)fluoranthene	4.4	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.2E-07	0.73	8.6E-08
Benzo(k)fluoranthene	1.7	100	1.0	0.5	84	6	1E-06	36.8	25,550	4.6E-08	0.073	3.3E-09
Chrysene	4.2	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.1E-07	0.0073	8.2E-10
Dibenzo(a,h)anthracene	0.38	100	1.0	0.5	84	6	1E-06	36.8	25,550	1.0E-08	7.3	7.4E-08
Indeno(1,2,3-cd)pyrene	2.1	100	1.0	0.5	84	6	1E-06	36.8	25,550	5.6E-08	0.73	4.1E-08
											Total	**9.3E-07**

Table A14d - Cancer and Non-Cancer Risks from Dermal Exposure to 1- to 3-Foot Soil in RA-3
Pathway: Dermal Contact
Receptor: Child Recreational User - 7-13 Years

CARCINOGENIC
Risk = CDI x CSF
CDI =Cs x DAF x SA x DA x EF x ED x CF x 1/BW x 1/ATc

Chemical	Cs Soil Concentration (mg/kg)	DAF Dermal Adherence Factor (mg/cm^2)	SA Surface Area Exposed (cm^2/day)	DA Dermal Absorption (unitless)	EF Exposure Frequency (d/yr)	ED Exposure Duration (yrs)	CF Conversion Factor (kg/mg)	BW Body Weight (kg)	ATc Averaging Time Carcinogenic (days)	CDI Chronic Daily Intake (mg/kg-d)	CSF Cancer Slope Factor $(mg/kg\text{-}d)^{-1}$	Risk
Arsenic	8.83	0.26	3,549	0.03	84	6	1E-06	36.8	25,550	1.3E-07	1.5	2.0E-07
Benzo(a)anthracene	4.0	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.6E-07	0.73	1.9E-07
Benzo(a)pyrene	1.5	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	9.6E-08	7.3	7.0E-07
Benzo(b)fluoranthene	4.4	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.8E-07	0.73	2.1E-07
Benzo(k)fluoranthene	1.7	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.1E-07	0.073	8.0E-09
Chrysene	4.2	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.7E-07	0.0073	2.0E-09
Dibenzo(a,h)anthracene	0.38	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	2.4E-08	7.3	1.8E-07
Indeno(1,2,3-cd)pyrene	2.1	0.26	3,549	0.13	84	6	1E-06	36.8	25,550	1.4E-07	0.73	9.9E-08
											Total	**1.6E-06**

Total Carcinogenic Risk		Ingestion 1-13 yrs	Dermal 1-13 yrs	Total
Arsenic		2.1E-06	5.0E-07	2.6E-06
Benzo(a)anthracene		4.6E-07	4.8E-07	9.4E-07
Benzo(a)pyrene		1.7E-06	1.8E-06	3.5E-06
Benzo(b)fluoranthene		5.1E-07	5.3E-07	1.0E-06
Benzo(k)fluoranthene		2.0E-08	2.0E-08	4.0E-08
Chrysene		4.9E-09	5.0E-09	9.9E-09
Dibenzo(a,h)anthracene		4.4E-07	4.5E-07	8.9E-07
Indeno(1,2,3-cd)pyrene		2.4E-07	2.5E-07	4.9E-07
	Total	**5.5E-06**	**4.0E-06**	**9.5E-06**

Total Noncarcinogenic Hazard		Ingestion 1-6 yrs	Dermal 1-6 yrs	Total
Acetophenone		3.2E-06	1.9E-06	5.1E-06
Arsenic		4.5E-02	7.9E-03	5.3E-02
Benzo(g,h,i)perylene		8.4E-05	6.4E-05	1.5E-04
Naphthalene		4.7E-05	3.5E-05	8.2E-05
Phenanthrene		2.3E-04	1.8E-04	4.1E-04
Sulfide		4.1E-03	2.4E-03	6.4E-03
	Total	**0.050**	**0.011**	**0.060**