01-0495
SDMS 37729

Pre-Design Investigation Work Plan for the Former Oxbow Areas J and K Removal Action

General Electric Company
Pittsfield, Massachusetts

June 2002

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BLASLAND, BOUCK & LEE, INC.
engineers & scientists

WORK PLAN

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Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue, Pittsfield, MA 01201

June 26, 2002

Mr. Bryan Olson
EPA Project Coordinator
U.S. Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: GE-Pittsfield/Housatonic River Site
~~**East Street Area 1-North (GECD430)**~~ Former Oxbow Areas J and K (GECD420)
Pre-Design Investigation Work Plan

Dear Mr. Olson:

In accordance with the schedule in the revised Attachment A to the *Statement of Work for Removal Actions Outside the River*, enclosed for review is General Electric Company's *Pre-Design Investigation Work Plan for Former Oxbow Areas J and K.*

Please call Dick Gates or me if you have any questions regarding this Work Plan.

Very truly yours,

Andrew T. Silfer /DAT

Andrew T. Silfer, P.E./nls
GE Project Coordinator

Enclosure

cc: Tim Conway, EPA
Holly Inglis, EPA
Michael Nalipinski, EPA
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James Nuss, BBL
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Property Owner - Parcel K10-10-3
Property Owner - Parcel K10-10-4
Property Owner - Parcel K10-10-5/-6
Property Owner - Parcel K10-10-33
Property Owner - Parcel K10-11-1
Property Owner - Parcel K10-11-2
Property Owner - Parcel K10-11-3
Property Owner - Parcel K10-11-5
Property Owner - Parcel K10-12-1
Property Owner - Parcel K10-13-1
Public Information Repositories
GE Internal Repository
(* w/out enclosure)

Table of Contents

Figures

Appendix

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 governs (among other things) the performance of response actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents in soils, sediment, and groundwater in several Removal Action Areas (RAAs) located in or near Pittsfield, Massachusetts that are part of the GE-Pittsfield/Housatonic River Site (the 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 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. In addition, depending on the specific Removal Action, the CD requires the performance of natural resource restoration/enhancement activities.

This *Pre-Design Investigation Work Plan for the Former Oxbow Areas J and K Removal Action* (PDI Work Plan) describes the soil investigations proposed by GE for the areas designated as Former Oxbow Areas J and K in the CD and SOW, as modified by a CD modification in February 2002. The results of these investigations, in combination with usable information from prior investigations within this RAA, will serve as the basis for design of the soil-related Removal Action for this RAA and the development of a Conceptual RD/RA Work Plan.

This PDI Work Plan includes a summary of available soils data from prior investigations in or near Former Oxbow Areas J and K, an assessment of the adequacy of this information to satisfy the pre-design soil investigation requirements established in the CD and SOW, and a proposal for additional investigations. Although the CD and SOW establish Performance Standards for response actions relating to soil, groundwater, and non-aqueous-phase liquid (NAPL), this PDI Work Plan focuses only on soils. Response actions related to groundwater and NAPL at Former Oxbow Areas J and K are being addressed separately as part of activities for Groundwater Management Area 2 (GMA 2) pursuant to the CD and SOW. At the present time, these activities

consist of the performance of a baseline monitoring program in accordance with GE's *Baseline Monitoring Program Proposal for the Former Oxbow Areas J and K Groundwater Management Area* (February 2001), as conditionally approved by EPA on September 6, 2001.

1.2 Format of Document

The remainder of this PDI Work Plan is presented in five sections. Section 2 provides a summary of background information concerning Former Oxbow Areas J and K, including a brief description of the area and a summary of prior soil investigations. Section 3 discusses the applicable Performance Standards identified in the CD and SOW for soils within Former Oxbow Areas J and K and the pre-design soil investigation requirements. Section 4 presents an assessment of the existing data and its usability in terms of satisfying the pre-design investigation requirements. Based on that assessment, Section 4 also proposes soil investigations to satisfy the remaining data needs. Section 5 presents a proposed schedule for performing the pre-design investigations. Finally, Section 6 provides a summary of anticipated Post-Removal Site Control activities for Former Oxbow Areas J and K following completion of the Removal Action.

2. Background Information

2.1 General

This section of the PDI Work Plan summarizes relevant background information concerning Former Oxbow Areas J and K, with an emphasis on the soil data available from prior investigations performed by GE and others. Section 2.2 briefly describes the history of Former Oxbow Areas J and K and their current physical features, while Section 2.3 summarizes prior soil investigations and available soil data. Several tables and figures are included in this PDI Work Plan to supplement the information presented in this section.

2.2 Description of Former Oxbow Areas J and K

Former Oxbow Areas J and K are located adjacent to the Housatonic River approximately 2,500 feet upstream of the Newell Street Bridge (Figure 1). In accordance with the February 2002 CD modification, Former Oxbow Area J encompasses an area of approximately 6 acres generally located north of the Housatonic River, south of East Street, and between Fasce Street and Commercial Street. Former Oxbow Area K encompasses an area of approximately 2.5 acres south of the Housatonic River across from the eastern portion of Former Oxbow Area J and generally to the northeast of Ventura Avenue. Figure 2 presents a larger site plan of Former Oxbow Areas J and K.

Certain portions of this RAA originally consisted of land associated with oxbows or low-lying areas of the Housatonic River. Rechannelization and straightening of the Housatonic River in the early 1940s by the City of Pittsfield and United States Army Corps of Engineers separated several of these oxbows and low-lying areas from the active course of the river. These oxbows and low-lying areas were subsequently filled with various materials from a variety of sources, resulting in the current surface elevations and topography.

Additional information regarding each oxbow area is presented below.

2.2.1 Former Oxbow Area J

The boundaries of Former Oxbow Area J depicted in the CD and SOW were expanded in February 2002 through a modification of the CD and SOW. That modification resulted in the inclusion of an additional property in this RAA (Parcel K10-11-15), based on the detection of PCBs and fill material in soil at that property as part of an investigation performed by others and unrelated to the CD and SOW (Scalise Associates, 2001). The current boundaries and configuration of Former Oxbow Area J are shown on Figure 2. This former oxbow area includes six commercial/industrial properties, as well as several utility-related easements and City-owned easements/rights-of-way. Although primarily industrial/commercial in nature, certain small and discontinuous areas within Former Oxbow Area J are designated in the CD and SOW as recreational. For the purposes of this PDI Work Plan, these recreational areas will be retained as individual areas as depicted in the CD and SOW. However, GE anticipates that these areas will need to be discussed further with EPA, especially with respect to the selection of appropriate averaging area(s) for future RD/RA evaluations.

As shown on Figure 2, there are six properties that fall within Former Oxbow Area J, all of which are owned by private parties other than GE:

- Parcel K10-11-1;
- Parcel K10-11-2;
- Parcel K10-11-3;
- Parcel K10-11-5;
- Parcel K10-12-1; and
- Parcel K10-13-1.

Several of these properties abut the Housatonic River (i.e., Parcels K10-11-2, K10-11-3, K10-11-5, and K10-12-1). Pursuant to the CD and SOW, both the riverbank and non-riverbank portions of these properties are part of this RAA.

2.2.2 Former Oxbow Area K

Former Oxbow Area K is comprised of approximately 2 acres of recreational properties/areas and approximately 0.5 acre of residential properties. As also shown on Figure 2, portions or all of five parcels fall within Former Oxbow Area K:

- Parcel K10-10-3;
- Parcel K10-10-4;
- Parcel K10-10-5;
- Parcel K10-10-6; and
- Parcel K10-10-33.

In accordance with the CD and SOW, Parcels K10-10-3, K10-10-4, and K10-10-33 are considered recreational properties and Parcels K-10-10-5 and K-10-10-6 are considered residential properties. Each of these properties is privately owned by parties other than GE. The two residential parcels (Parcels K10-10-6 and K10-10-5) are under common ownership and are treated by the owner as part of a single residential property. The three non-residential properties within Former Oxbow Area K are adjacent to the Housatonic River (Parcels K10-10-3, K10-10-4, and K10-10-33). For these properties, both riverbank and non-riverbank portions are included in this RAA.

2.3 Summary of Available Soil Analytical Data

Information concerning Former Oxbow Areas J and K and, in particular, the results of the prior soil investigations have been presented in several documents. Certain of these documents include summaries of earlier existing data. The documents that provide such information include:

- *Results of the Soil Boring Program Conducted in the Vicinity of the Proposed Altresco Gas Line (Project No. NY05506)*, Geraghty & Miller Environmental Services, November 1989;

- *MCP Phase I and Interim Phase II Report for Former Housatonic River Oxbow Areas A, B, C, J, and K*, Blasland, Bouck, & Lee, Inc. (BBL), February 1996;

- *MCP Phase II Scope of Work; Former Housatonic River Oxbow Areas A, B, C, J, and K*, O'Brien & Gere Engineers, Inc., April 1998;

- *Supplemental Investigation Summary Report for Goodrich Brook* (Parcel K10-10-33), BBL, May 1998;

- *Further Investigation Summary Report for Parcel K10-10-33*, BBL, July 1998; and

- *Environmental Site Assessment, 1400 East Street* (Parcel K10-10-33), Scalise Associates, 2001.

The investigations previously performed and described in the reports listed above have resulted in PCB soil analytical data for approximately 58 samples within or in close proximity to this RAA. In addition, approximately 13 soil samples collected within this RAA during prior investigations have been analyzed for one or more groups of non-PCB 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).

Subject to certain conditions, the CD and SOW allow the existing soil data to be incorporated into the pre-design soil investigations for the RAAs. Section 4.3 of this PDI Work Plan describes the process by which these data were evaluated and, if appropriate, included in the development of the proposed pre-design investigations. To facilitate the presentation and use of these prior data, Figure 3 illustrates the prior sampling locations and includes (on that figure) tabular summaries of the resulting PCB data. The soil sampling locations and depths previously sampled for PCBs are also listed in Table 1. The soil sampling locations and depths previously sampled for non-PCB Appendix IX+3 constituents, along with the groups of such constituents that were analyzed for, are listed in Table 2. Tabulated analytical results from these samples for both PCBs and other Appendix IX+3 constituents are presented in Appendix A.

The information presented in the above-referenced tables, figures, and appendices represent the available soil sampling data. Note that, in addition, as part of an investigation performed by GE (separate from the CD and SOW), two sediment samples were collected from the portion of Goodrich Brook located within this RAA and analyzed for PCBs. While not incorporated into the soil investigations addressed by this PDI work plan, these sediment data have been included on Figure 3 for the completeness in reporting historic analytical data related to this RAA.

3. Applicable Performance Standards and Related Requirements

3.1 General

This section summarizes the soil-related Performance Standards established in the CD and SOW for Former Oxbow Areas J and K, as well as the applicable pre-design soil investigation requirements.

3.2 Performance Standards for Former Oxbow Areas J and K Removal Action

Response actions for soils at Former Oxbow Areas J and K must achieve the relevant Performance Standards included in the CD and SOW for the Former Oxbow Areas, which are set forth in Paragraph 26 of the CD and Section 2.3.2 of the SOW. In general, the need for and extent of response actions to address PCBs and non-PCB Appendix IX+3 constituents in soils are determined based on the available soils data and using evaluation procedures established in the CD and SOW.

For PCBs, response actions are to be based on the results of spatial averaging conducted for soils within the RAA. Attachment E to the SOW identifies the averaging areas, the methods to be used to determine existing spatial average PCB concentrations, and the procedures to be used to assess whether the anticipated response actions will achieve the PCB Performance Standards. For non-PCB Appendix IX+3 constituents in soils, the evaluation is to address the same areas and depths evaluated for PCBs, take into account the response actions necessary to address PCBs, and to be conducted in accordance with the protocols described in Attachment F to the SOW. Although the CD and SOW establish Performance Standards for natural resource restoration/enhancement at several RAAs, no such requirements exist for Former Oxbow Areas J and K.

The applicable PCB Performance Standards for soils at Former Oxbow Area J and K are summarized below.

3.2.1 Non-Residential Properties/Areas

For each of the non-residential properties within Former Oxbow Areas J and K, GE must make "best efforts" (as defined in the CD) to obtain a Grant of Environmental Restriction and Easement (ERE) from each property owner. If an ERE cannot be obtained, GE must implement a Conditional Solution in accordance with Paragraph 34 of the CD. The applicable Performance Standards for PCB response actions vary depending on whether an ERE is obtained or a Conditional Solution will be implemented, as described below.

For commercial/industrial properties within Former Oxbow Areas J and K, GE is required to perform the following response actions:

- For properties where an ERE is obtained:

  -- If the spatial average PCB concentration in the top foot in the unpaved portion exceeds 25 parts per million (ppm), GE shall remove and replace soils as necessary to achieve that spatial average PCB concentration. In addition, for any parcel that is evaluated as a single averaging area and exceeds 0.5 acre in size, GE shall remove any soils containing PCB concentrations greater than 125 ppm in the top foot of the unpaved portion.

  -- If the spatial average PCB concentration in the top foot in the paved portion exceeds 25 ppm, GE shall either remove and replace soils as necessary to achieve that spatial average concentration or enhance the existing concrete/asphalt surface in accordance with the specifications for pavement enhancement in Attachment G to the SOW.

  -- If the spatial average PCB concentration in the 1- to 6-foot depth increment exceeds 200 ppm (considering the paved and unpaved portions together), GE shall remove and replace soils as necessary to achieve that spatial average PCB concentration.

  -- If the remaining spatial average PCB concentration in the top 15 feet of soil exceeds 100 ppm (after incorporating the anticipated performance of any response actions for the top foot and 1- to 6-foot depth increment), GE shall install an engineered barrier in those areas determined to cause the exceedance of the 100 ppm spatial average concentration.

-- For areas subject to pavement enhancement or engineered barriers, GE shall provide appropriate flood storage compensation in accordance with the CD and SOW.

-- Where utilities potentially subject to emergency repair are present and the spatial average PCB concentration for the soils in the utility corridor exceeds 200 ppm, GE shall evaluate whether additional response actions are necessary for that corridor and submit that evaluation, and a proposal for such response actions if needed, to EPA. In addition, if a new subgrade utility is installed or an existing subgrade utility is repaired or replaced in the future, GE shall ensure that the spatial average PCB concentration of the backfill material does not exceed 25 ppm.

- For properties where an ERE is not obtained:

-- GE shall conduct response actions as necessary to meet the same Performance Standards described above, except that GE must remove and replace soils as necessary to meet a spatial average PCB concentration of 25 ppm in both the top foot and 0- to 3-foot depth increment.

-- GE must also meet the other conditions for a Conditional Solution specified in the CD.

For the recreational properties/areas located within Former Oxbow Areas J and K, GE is required to perform the following response actions:

- For properties/areas where an ERE is obtained:

-- If the spatial average PCB concentration in the top foot exceeds 10 ppm, GE shall remove and replace soils as necessary to achieve that spatial average. In addition, for any property/area that is evaluated as a single averaging area and exceeds 0.5 acre in size, GE shall remove any soils containing PCB concentrations greater than 50 ppm in the top foot of unpaved soils.

-- If the spatial average PCB concentration in the 1- to 3-foot depth increment exceeds 15 ppm, GE shall remove and replace soils as necessary to achieve that spatial average.

-- If the remaining spatial average PCB concentration in the top 15 feet of soil exceeds 100 ppm (after incorporating the anticipated performance of any response actions for the top foot and 1- to 3-foot depth

increment), GE shall install an engineered barrier in those areas determined to cause the exceedance of the 100 ppm spatial average concentration. In such areas subject to engineered barriers, GE shall provide appropriate flood storage compensation in accordance with the CD and SOW.

-- Where utilities potentially subject to emergency repair are present and the spatial average PCB concentration for the soils in the utility corridor exceeds 200 ppm, GE shall evaluate whether additional response actions are necessary for that corridor and submit that evaluation, and a proposal for such response actions if needed, to EPA. In addition, if a new subgrade utility is installed or an existing subgrade utility is repaired or replaced in the future, GE shall ensure that the spatial average PCB concentration of the backfill material does not exceed 10 ppm in the top 3 feet and 25 ppm for greater depths.

- For properties/areas where an ERE is not obtained:

-- GE shall conduct response actions as necessary to meet the same Performance Standards described above, except that GE must remove and replace soils as necessary to meet a spatial average PCB concentration of 10 ppm in both the top foot and 0- to 3-foot depth increment.

-- GE must also meet the other conditions for a Conditional Solution specified in the CD.

The CD provides, in Paragraph 56.b, that GE must notify EPA and MDEP at the time of submittal of the PDI Work Plan for a given Removal Action, or within such other time proposed by GE and approved by EPA, whether each person who owns or controls a non-GE-owned property within that RAA agrees to execute and record an ERE on the property. As documented in a February 15, 2002 letter from GE to EPA, EPA has agreed that GE's written ERE notice for Former Oxbow Areas J and K will be submitted one month after submission of the Pre-Design Investigation Report for this RAA or at such other time as may be proposed by GE and approved by EPA at the time of submission of that report.

3.2.2 Residential Properties

For residential properties located within Former Oxbow Area K, GE is required 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 soils as necessary to achieve a spatial average PCB concentration at or below 2 ppm in each of those depth increments. In addition, for any parcel that exceeds 0.25 acre in size, GE must remove all soils containing PCB concentrations greater than 10 ppm from the top foot in unpaved portions of such parcel.

3.3 Pre-Design Soil Sampling Requirements

To achieve the Performance Standards discussed in Section 3.2, the SOW establishes specific requirements for soil sampling at the Former Oxbow Areas within the GE-Pittsfield/Housatonic River Site. The pre-design soil sampling requirements for Former Oxbow Areas J and K involve the performance of a grid-based sampling program for PCBs, taking into account the existing, usable PCB data. Grid-based PCB sampling requirements that apply to this RAA are as follows:

- For commercial/industrial properties and recreational properties/areas (excluding soil beneath existing buildings), the SOW requires that surface soil samples (i.e., samples from the 0- to 1-foot depth increment) be collected on an approximate 50-foot grid sampling pattern and subsurface soil samples to be collected on an approximate 100-foot grid sampling pattern, with samples to be collected from the 1 to 3, 3 to 6, 6 to 10, and 10 to 15 foot depth intervals.

- For residential properties, the SOW requires that surface soil sampling be conducted at 0 to 0.5 and 0.5 to 1 foot depth increments on an approximate 25-foot grid sampling pattern (however, as discussed in Section 4.42, GE proposes to instead perform soil sampling for the 0 to 1 foot depth increment). For subsurface soils, sampling must be performed on an approximate 50-foot grid sampling pattern. Subsurface soil sampling is to advance vertically from the ground surface to a depth determined by the extent of any visible fill material or evidence of contamination, or the water table, whichever occurs deeper. (GE has further interpreted this sampling requirement to establish a maximum sampling depth of 15 feet below the ground

surface). Beyond the surface soil sampling, subsurface soil samples are to be collected in 2-foot depth increments.

In addition to PCBs, certain soil samples within Former Oxbow Areas J and K must be analyzed for other Appendix IX+3 constituents, with these samples to be selected in accordance with the protocols described in Attachment D to the SOW. Sampling requirements that apply to each of the properties within this RAA are as follows:

- For the portion of the RAA that includes commercial/industrial properties and recreational properties/areas, the total number of Appendix IX+3 analyses must be approximately one-third the number of PCB samples that are needed to meet the applicable pre-design investigation requirements. Further, the Appendix IX+3 samples must be approximately evenly distributed between surface soil samples (from the top foot of soil) and subsurface soils (from the various deeper intervals). The actual selection of sample locations and depths for Appendix IX+3 analyses is to be based on the spatial distribution of any available data and may be modified based on field observations at the time of sampling (e.g., photoionization detector [PID] readings, evidence of staining, etc.).

- For residential properties, the SOW requires that a minimum of three samples per property be selected for Appendix IX+3 analysis based on the highest PID readings. As discussed in Section 4.42, GE has proposed a sampling approach that is consistent with this requirement (in terms of sample volumes) but modified with respect to the distribution of the sampling locations.

4. Identification of Data Needs and Proposed Pre-Design Investigations

4.1 General

As summarized in Section 3.3 of this PDI Work Plan, the SOW establishes investigation requirements to support the performance of RD/RA activities and achievement of applicable Performance Standards for soils within Former Oxbow Areas J and K. This section considers these requirements -- and the soil data currently available from prior investigations in this area -- to identify the necessary pre-design soil investigations for this RAA. Section 4.2 identifies the pre-design investigation requirements, and Section 4.3 summarizes the available soil analytical data and provides an assessment of the usability of those data to satisfy such data needs. Section 4.4 then describes the additional soil sampling proposed by GE to fill the remaining data needs, while Section 4.5 summarizes the sampling procedures.

The Data Quality Objective (DQO) for the pre-design investigations is to collect the necessary soil analytical data on PCBs and other Appendix IX+3 constituents to meet the applicable soil sampling requirements specified in the SOW, and thus support future RD/RA evaluations to assess achievement of the applicable Performance Standards for this area.

4.2 Summary of Required Investigation Data

As discussed in Section 3.3, the SOW requires the performance of a grid-based sampling program for PCBs using 25-foot, 50-foot, and 100-foot grids (depending on the type of property and sampling depth), and taking into account the existing usable data that satisfy such grid-based sampling requirements. Consistent with the SOW, 50-foot and 100-foot sampling grids have been established for the non-residential properties and 25-foot and 50-foot grids have been established for the residential parcels. These grids are shown on Figure 4. In identifying proposed PCB sampling locations, grid nodes related to the 50-foot and 100-foot grids that fall outside of, but are within 15 feet of the RAA boundary, were included for sampling but relocated to a position within the RAA. Similarly, grid nodes that fall within the footprint of an existing structure, but are within 15 feet of the exterior of the structure, were relocated to a position outside the structure and included for sampling.

Based on the applicable pre-design investigation requirements and the relevant grids, and without consideration of any usable PCB sampling data, the pre-design soil investigation criteria for the non-residential properties at this RAA require PCB data from 160 surface soil samples (from the top foot) and 168 subsurface soil samples from 42 locations. For other Appendix IX+3 constituents, the number of samples must be approximately one-third the required number of PCB samples (i.e., approximately 109 Appendix IX+3 analyses), with these samples approximately evenly distributed between the top one foot and at depths greater than one foot (further, to the extent practicable, the Appendix IX+3 samples representing depths greater than one foot should be evenly distributed among the various sample depth intervals). An assessment of the extent to which the existing soil data can be used to satisfy these data needs is provided in Section 4.3 below.

For the residential parcels, certain pre-design sampling requirements can be quantified (i.e., the required number of samples from the top foot of soil). Although the SOW indicates that PCB sampling on the residential parcels at this RAA be performed on a 25-foot sampling grid and include collection of samples from the 0 to 0.5-foot and 0.5- to 1-foot depth increments, GE proposed that samples instead are collected to represent the 0 to 1 – foot depth increment for these parcels. This proposal is based on the future RD/RA evaluations required for these parcels (which will evaluate the 0 to 1 – foot depth increment), as well as the fact that sampling at other residential parcels addressed by the CD and SOW (e.g. parcels located within the Newell Street Area II, Silver Lake, and Floodplain Current Residential Properties Adjacent to 1 ½ - Mile Reach RAA's) use a 0 to 1 – foot sample depth increment. Based on this proposed modification, a total of 54 PCB samples are required from the top foot of the two residential parcels within Former Oxbow Area K. For subsurface soil samples, the extent of sampling is based on field conditions that are encountered at the time of sampling, so an accurate count of required subsurface samples cannot be determined at this time. For other Appendix IX+3 constituents, the SOW requires a minimum of three samples per property. Based on the sampling requirements established in the SOW and summarized above, GE has developed a proposed sampling approach for the residential parcels within this RAA (Section 4.4.2). Similar to the commercial/industrial and recreational properties, existing PCB and Appendix IX+3 soil data have been incorporated into this plan, to the extent that such data are considered usable.

4.3 Assessment of Existing Soil Analytical Data

The existing soil data from Former Oxbow Areas J and K are listed in Tables 1 and 2 (for PCBs and non-PCB constituents, respectively), while summaries of the analytical data from those samples are provided in Appendix

A. These data have been reviewed to assess their usability to satisfy pre-design investigation requirements and/or to otherwise support future RD/RA activities for this area. As provided in Attachment D to the SOW, the criteria for determining the usability of existing data to support RD/RA activities include: (1) an evaluation of whether such data reflect the appropriate locations and depth increments necessary to meet the soil sampling requirements specified in the SOW, and to apply the Performance Standards for the Removal Action in question; and (2) an assessment of the quality of such data in terms of quality assurance/quality control. To perform this review, the existing soil analytical data were reviewed to determine whether and to what extent they meet the spatial and depth-related pre-design sampling requirements (i.e., their location and depth increments relative to the requirements of the SOW). The data were also assessed for overall analytical usability based on several considerations, as discussed below.

4.3.1 Existing PCB Data

For the existing soil PCB data set (58 sample results), the usability assessment involved, at the outset, review of the depth increments from which the samples were taken. This review indicated that certain sample results are not usable for pre-design or RD/RA evaluation purposes because they were collected from depths of greater than 15 feet. Based on this criterion, six PCB sample results were eliminated from consideration. In addition, 11 PCB sample results were rejected on the ground that they consist of composite samples collected over a relatively large depth interval (i.e., 0 to 4 feet) that extends across two or more of the depth increments subject to RD/RA evaluations. In addition, 6 samples were rejected because they were collected over an interval of 0 to 0.3 feet, which is less than half of the depth interval that they would potentially represent (i.e., 1 foot).

The remaining data, consisting of 35 PCB sample results, were then assessed to determine their overall data quality and usability to satisfy pre-design investigation requirements and/or in future RD/RA evaluations. This assessment indicated the following categories of PCB data:

- For four PCB sample results, full laboratory data packages are available. These data packages were reviewed for reporting completeness, the analytical methodologies, and any apparent method or analytical discrepancies or other significant data quality issues noted in the data packages. Review of that documentation showed no deficiencies that would preclude use of these data in RD/RA evaluations for this RAA. Hence, these data are considered usable to satisfy the pre-design investigation requirements (if they

meet the specific grid node and depth interval sampling requirements), or alternately, as supplemental data in future RD/RA activities.

- For 16 sample results, only a standard laboratory reporting form is available. However, those forms are sufficient to identify the analytical methods utilized and the associated detection limits. These data are considered usable to satisfy pre-design investigation requirements (if the requisite locational criteria are met) or as supplemental data in future RD/RA activities for the following reasons: (1) the reporting form confirms the date of sample analyses and thus the analytical methodologies being used at the time; (2) those analytical methodologies are consistent with current procedures; (3) the reporting form is a laboratory-generated document and thus incorporates certain inherent QA checks performed by the laboratory concerning data quality; and (4) review of other PCB data collected during the same period and analyzed by the same method for which full laboratory data packages are available indicates that those data are 100% usable, thus suggesting that the PCB analyses from this time period and using the same method are generally of sufficient quality for use in RD/RA evaluations.

- Fifteen samples were collected and analyzed by GE in 1989. For these results, laboratory documentation has been located and indicates the PCB analytical methodology used at that time was somewhat different from the current method. Accordingly, these data will not be used to satisfy the pre-design investigation requirements. However, GE has seen no evidence at the GE-Pittsfield/Housatonic River Site that PCB data analyzed by the prior method are significantly different from those analyzed by the current method. Hence, GE anticipates using the 1989 data as supplemental data in future RD/RA evaluations.

To determine which of the existing usable PCB data can be used to satisfy the grid-based pre-design sampling requirements, the data determined to be potentially usable to satisfy pre-design investigation requirements (20 samples total) were reviewed in relation to the 25-foot, 50-foot, and 100-foot sampling grids shown on Figure 4 (and discussed in Section 4.2). Consistent with other pre-design investigations performed pursuant to the CD and SOW, an existing PCB sample location was assumed to represent a sample grid node if it is located no more than one-half of the grid node spacing from the sample node in question (e.g., within a 100-foot sample grid pattern, an existing sample location that is within 50 feet of a grid node was used to represent that grid node). Further, existing sample depths were assumed to satisfy a depth interval requirement if the existing depth(s) constitute 50% or more of the depth requirement. Based on this evaluation, the usable existing PCB data adequately address the pre-design grid sampling requirements for five surface soil samples and 11 subsurface soil samples. These include five surface samples and four subsurface samples at the non-residential properties

(as shown in Table 3A) and seven subsurface samples at the residential properties (as shown in Table 3B). The remaining usable data will be utilized in future RD/RA evaluations as supplemental data.

Table 1 categorizes all existing PCB sample results based on their proposed use related to pre-design and future RD/RA activities. Specifically, the prior PCB data are categorized as follows:

- PCB data that will be used to satisfy grid-based pre-design soil investigation requirements and will be incorporated into future RD/RA activities (designated "Grid Characterization");

- PCB data that have not been incorporated into the proposed grid-based pre-design investigations, but will be used in future RD/RA evaluations (designated "Supplemental"); or

- PCB data that have not been incorporated into the proposed pre-design investigations and will not be used in any future RD/RA activities (designated "Rejected").

4.3.2 Non-PCB Appendix IX+3 Constituents

For non-PCB Appendix IX+3 constituents, data are available from 13 soil sample results for one or more groups of such constituents. Of these results, data from one sample (YB-4, 0- to 4-feet) were eliminated from consideration since this sample was collected from a depth interval that cannot be used in RD/RA evaluations for this area. This depth interval extends across two depth increments subject to RD/RA evaluations. The remaining data were then reviewed for overall analytical quality, with the following results:

For the remaining 12 samples analyzed for one or more groups of Appendix IX+3 constituents, only a standard laboratory data form could be obtained (Table 2). In the absence of full laboratory data packages, these sample results will not be counted toward the calculation of the required number of non-PCB Appendix IX+3 analyses, but will be considered as supplemental data as part of the subsequent RD/RA evaluations.

Table 2 categorizes the prior non-PCB Appendix IX+3 data based on their proposed use related to pre-design and future RD/RA activities. Specifically, these prior data are categorized as follows:

- Non-PCB data that have not been used to satisfy pre-design investigation requirements, but may be considered further in the future as part of RD/RA evaluations, subject to review of usability (designated "Supplemental"); or

- Data that have not been incorporated into the proposed pre-design investigations and will not be used in any future RD/RA activities (designated "Rejected").

4.4 Proposed Soil Sampling Activities

This section describes the soil investigations proposed by GE to satisfy pre-design requirements, taking into account the existing data that are usable for these purposes as described in Section 4.3. The proposed sampling program for the industrial/commercial, recreational, and residential properties and areas within Former Oxbow Areas J and K is further discussed below.

4.4.1 Non-Residential Properties/Areas

As discussed in Section 4.3, existing PCB data can be used to satisfy the grid-based pre-design sampling requirements for five surface soil samples and four subsurface soil samples for the commercial/industrial properties and recreational properties/areas at this RAA. GE proposes to collect soil samples for PCB analysis at each of the remaining grid locations at this RAA, as shown on Figure 4. (As discussed in Section 4.4.3 below, some of the proposed sampling locations have been slightly relocated from the grid nodes to ensure the collection of PCB data near subsurface utilities.) The proposed PCB sampling locations shown on Figure 4 are also listed in Tables 3A and 4. The subsurface samples will be collected from depth increments of 1 to 3 feet, 3 to 6 feet, 6 to 10 feet, and 10 to 15 feet. In total, the proposed PCB sampling for the commercial/industrial and recreational properties/areas will involve the collection of 155 samples from the top foot of soil and 164 subsurface soil samples (for a total of 319 samples) for PCB analysis.

With respect to Appendix IX+3 constituents other than PCBs, the SOW requires that the total number of non-PCB Appendix IX+3 analyses must be approximately one-third of the number of PCB samples required to satisfy the pre-design investigation requirements. As noted in Section 4.2, based on the evaluation of PCB sampling requirements, the total number of PCB samples needed to satisfy the grid-based PCB characterization

requirements is 328. Thus, approximately 109 soil sample analyses are required for non-PCB Appendix IX+3 constituents, of which approximately half must come from the top foot of soil, with the remaining samples relatively evenly distributed among the various subsurface sampling intervals.

To satisfy these requirements, GE proposes to collect or submit soil samples for Appendix IX+3 analysis from the locations and depths shown on Figures 5 through 9 and listed in Table 4. Specifically, these figures show the proposed distribution of Appendix IX+3 samples from the 0- to 1-foot depth increment (Figure 5), the 1- to 3-foot depth increment (Figure 6), the 3- to 6-foot depth increment (Figure 7), the 6- to 10-foot depth increment (Figure 8), and the 10- to 15-foot depth increment (Figure 9). In total, this proposed sampling effort will result in the availability of 49 Appendix IX+3 analyses for surface soils and 60 Appendix IX+3 analyses for subsurface soils. Table 4 lists, on a sample-by-sample basis, the proposed sampling locations, depths, and analytical parameters.

For samples collected for Appendix IX+3 analyses as part of the pre-design soil investigations, GE proposes to exclude analyses for pesticides and herbicides for the following reasons: First, review of the available soils data from Former Oxbow Areas J and K (Appendix A) indicates that the majority of the pesticide/herbicide results were non-detect, and that, when detected, these constituents were in all cases found at levels below the Reportable Concentrations set forth in the MCP. Second, it is suspected that the low concentrations of these compounds, where detected, is likely attributable to the application of weed and pest control materials in accordance with their intended and appropriate commercial applications. Third, similar with the Newell Street Area I RAA (where pesticides or herbicide were detected in only one of the samples collected in a targeted area within that RAA), low concentrations of herbicides were found in only one of the existing samples collected a Former Oxbow Areas J and K. Given these results, GE submits that sampling and analysis for pesticides and herbicides are unnecessary as part of the pre-design soil investigations at Former Oxbow Areas J and K.

4.4.2 Residential Properties

For the two residential parcels located within Former Oxbow Area K (which are commonly owned and treated by the owner as part of a single residential property), GE proposes to perform the pre-design investigations in an iterative manner. Such an approach is due to the lack of specific pre-design investigation requirements concerning the vertical extent of sampling needed for PCBs and the fact that certain investigation requirements are dictated by field conditions that are encountered at the time of sampling.

The proposed PCB sampling approach is as follows:

- GE will collect soil samples for PCB analysis from the 0 - to 1 – foot depth increments at each 25-foot grid node, as shown on Figure 4.

- For the subsurface soil investigations, the required depth of sampling (as well as the depth intervals subject to RD/RA evaluations) is dependent on several factors, including visual observations and PCB soil sample results. As shown on Figure 4, a 50-foot subsurface soil sampling grid results in the need for 14 soil boring locations within the two properties. Rather than advancing each soil boring up to a depth of 15 feet (and collecting a total of 112 samples), GE proposes to initially advance soil borings at five locations spatially distributed across the two parcels: RAA15-J15, -L11, -L13, -N15, and -P13 (these locations will be used to supplement the information available from the one existing boring in this area that has usable PCB data, location K-1). At each of these locations, GE will collect subsurface soil samples continuously from the ground surface to a depth determined by the extent of any visible fill material or evidence of contamination, to the water table, or to a depth of 15 feet, whichever occurs deeper. Once collected, GE will analyze the soil samples in an iterative manner to establish the vertical presence of PCBs at each location.

- From the results of the initial subsurface investigation summarized above, GE will make a general assessment regarding the vertical extent of PCBs, depth to the water table, and presence of any fill materials or evidence of contamination. With this information, and in consideration of the depths of the existing subsurface utility located along Ventura Avenue, GE will identify depth(s) for the remaining subsurface soil investigations (at eight soil boring locations) and will discuss these depth(s) with EPA.

- At each of the remaining soil boring locations, GE will collect soil samples to the depth(s) identified above. Since these depth(s) will be conservatively identified, GE may perform PCB analyses in an iterative manner within each soil boring, with analyses conducted until PCBs are not detected.

For other Appendix IX+3 constituents, the SOW requires that a minimum of three samples be selected for Appendix IX+3 analyses from each residential property, based on the highest PID readings. Consistent with this requirement, and considering the small size of these residential properties within this RAA and the fact that they are treated by the owner as part of a single residential property, GE proposes to submit a minimum of six total

samples from these two parcels together for Appendix IX+3 analyses (excluding pesticides and herbicides as described above). However, rather than selecting samples from the six locations with the highest PID readings (as required in the SOW), these samples will include at least three from the top one foot of soil and at least three from deeper increments (to represent the 1- to X-foot depth interval). The samples will be selected to include the locations/depths with the highest PID readings within each such depth increment (if there are any elevated PID readings) and, to the extent practicable will be selected to provide a spatial distribution of samples on these parcels.

Once the PID data are available from the PCB sampling, GE will propose to EPA the specific locations and depths from which it will submit samples for Appendix IX+3 analyses consistent with the above criteria. Due to this procedure, the specific locations and depths for such samples cannot be identified at this time on Figures 5 through 9 or in Table 4.

4.4.3 Utility-Related Investigations

GE has evaluated the proposed pre-design soil investigations in relation to the locations of existing subsurface utilities within Former Oxbow Areas J and K. A review of the available mapping (obtained from the City of Pittsfield) indicates that municipal utilities within or in the vicinity of this RAA include water and sewer lines and storm drains. These utility lines are shown on Figure 3. Except along the western boundary of Former Oxbow Area J, the municipal water lines are parallel to East Street, Parkside Avenue, and Ventura Avenue but are not located within the RAA boundary. The municipal sewer runs through Parcels K10-11-1, K10-11-2, and K10-11-13 within Former Oxbow Area J, crosses the Housatonic River, and continues through Parcel K10-10-4 in Former Oxbow Area K.

Based on the locations of these utilities, the scope of the proposed PCB soil investigations has been reviewed. Consistent with recent discussions with EPA, this review involved an assessment of existing/proposed PCB soil data located within an approximately 50-foot horizontal band centered on and positioned parallel to a given utility. If the spacing between such data along the length of the utility band is in the range of 100 to 200 feet and of an appropriate depth to reflect the vertical location of the utility, the existing/future PCB data are considered sufficient to support RD/RA evaluations of the utility corridor. If these criteria are not met, the location of proposed sampling can be adjusted to fall within the utility band, or additional sampling can be

proposed. From a review of the existing utilities, the following changes/additions to the proposed pre-design investigations were included:

- RAA15–E1 was changed from a surface soil sampling location to a subsurface boring;
- RAA15-G2 was moved approximately 7 feet to within the utility band;
- RAA15-C15 was moved approximately 20 feet to within the utility band;
- RAA15-C20 was moved approximately 20 feet to within the utility band;
- RAA15-C22 was moved approximately 7 feet to within the utility band; and
- RAA15-N11 was moved approximately 5 feet to within the utility band.

In addition to these utilities, there are likely other subsurface utilities within Former Oxbow Areas J and K such as individual water, sewer, and electrical service connections to the existing buildings. These individual service connections are not shown on publicly available mapping and hence will have to be field located prior to the start of the field sampling. Accordingly, the locations of these additional utilities cannot be assessed until such field reconnaissance has been performed. At that time, GE will evaluate whether other proposed PCB sampling locations should be moved to provide data within utility bands, and if appropriate, will propose such modifications to EPA.

4.5 Soil Sampling and Analytical Procedures

The collection and analysis of the soil samples at Former Oxbow Areas J and K will be conducted following the procedures set forth in GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP). Specifically, the analytical procedures for the analysis of soil samples will be consistent with the EPA-approved procedures presented in Table 1 of the FSP/QAPP. The field procedures will follow the Standard Operating Procedures presented in Appendices B through X of the FSP/QAPP. The specific locations/depths of some of the proposed samples may be modified in the field considering PID readings or other visual observations, or if site conditions (e.g., standing/flowing water, large trees, subsurface utilities, other obstructions) prevent sampling at any of the designated locations. In addition, where grid node locations coincide with steeply sloping river banks, the sampling locations will be modified to allow accessibility.

Soil samples collected during the pre-design investigation at Former Oxbow Areas J and K will utilize EPA Method 8082 for the analysis of Aroclor-specific PCBs. Results for PCBs will be reported on a dry-weight basis with a detection limit of 0.05 ppm for all Aroclors.

Soil samples to be analyzed for other Appendix IX+3 constituents (excluding pesticides and herbicides) will be analyzed following the methods presented in Table 1 of the FSP/QAPP. Sample results will be presented on a dry-weight basis with detection limits consistent with those presented in Table 3 of the FSP/QAPP.

Analysis of samples for PCDDs/PCDFs will be performed using EPA Method 8290 for samples collected from: (a) the residential parcels (all depth increments); (b) the 0- to 1-foot depth increment at all non-residential properties; and (c) the 1- to 3-foot depth increment at recreational areas. Method 8280A will be used for all other samples. Since Method 8290 has lower detection and reporting limits, it will be used for samples from areas and depth increments for which the SOW prescribes lower Performance Standards for PCDD/PCDF Toxicity Equivalency Quotients (TEQs) (i.e., 1 ppb for residential properties and the top foot in recreational areas, 1.5 ppb for the 1- to 3-foot depth at recreational areas, and 5 ppb for the top foot in commercial/industrial areas), while Method 8280A is wholly adequate to ensure achievement of the higher Performance Standard set forth in the SOW for subsurface soil at commercial/industrial areas (20 ppb). PCDD/PCDF results will be reported on a dry-weight basis for both total homologues and 2,3,7,8-substituted congeners, using sample detection limits consistent with those presented in Table 3 of the FSP/QAPP. In addition, total TEQ concentrations will be calculated for the PCDD/PCDF compounds, using the Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and representing non-detected compounds as one-half the analytical detection limit.

Quality control samples (i.e., matrix spike/matrix spike duplicates, field duplicates, trip blanks, and field blanks) will be collected at the frequency specified in Table 4 of the FSP/QAPP for each sample matrix collected. Tables 4 and 5 of the FSP/QAPP present the quality control criteria and corrective action procedures to be followed for each of the analytical procedures listed in Table 1 of the FSP/QAPP and for field-generated quality control samples. Overall project quality assurance will be ensured by following the procedures specified in the FSP/QAPP for sample collection and analysis, corrective action, and data reporting and validation.

5. Schedule

GE proposes to complete the additional investigations described in this PDI Work Plan and submit a Pre-Design Investigation Report for the Former Oxbow Areas J and K within 6 months after EPA's approval of this PDI Work Plan. This timeframe has been identified based on a number of factors, including not only those typically associated with site investigations (e.g., weather conditions, access permission, etc.), but also certain RAA-specific considerations, including the need for special coordination efforts to implement the investigation activities around certain commercial/industrial operations and the proposed iterative approach for the pre-design investigations at the residential parcels.

With respect to access, if GE is unable to obtain access permission from particular property owners after using "best efforts" (as defined in the CD) to do so, it will so advise EPA and MDEP and seek their assistance in obtaining such access pursuant to Paragraph 60.f (i) of the CD. If delays in obtaining access permission or delays due to other factors will cause a delay in the schedule proposed above, GE will notify EPA and propose a revised schedule for completing the investigations and submitting a Pre-Design Investigation Report.

The Pre-Design Investigation Report will present the results of all investigations conducted pursuant to this PDI Work Plan. It will also consider the sufficiency of the available data to support RD/RA activities for this Removal Action. If it is determined that further data are needed to support RD/RA activities to achieve the soil-related Performance Standards, that report will propose supplemental investigations to fill those data needs and a schedule for performing those supplemental investigations and submitting a Supplemental Pre-Design Investigation Report. If GE concludes in the Pre-Design Investigation Report that the available data are sufficient to support RD/RA activities for the Removal Action at this RAA, then that report will include a proposed schedule for submission of a Conceptual RD/RA Work Plan for the Removal Action for Former Oxbow Areas J and K.

6. Summary of Anticipated Post-Removal Site Control Activities

Following the completion of construction activities to implement the necessary response actions, GE will continue to inspect, maintain, and monitor the completed actions and to perform repairs and replacement as needed, so as to ensure that the completed response actions are performing as designed. The specific scope and methodologies for such inspection and maintenance activities will be detailed in a Post-Removal Site Control Plan for the Removal Action at Former Oxbow Areas J and K. Such activities will include the periodic inspection and maintenance of surface covers installed (i.e., engineered barriers), inspection and maintenance of certain ancillary components of the response actions (e.g., fencing and warning signs, if any), and repair or replacement of response actions at areas exhibiting deficiencies or potential problems.

The Post-Removal Site Control activities will be conducted in accordance with the pertinent requirements specified in Attachment J (Inspection and Maintenance Activities) to the SOW, except as otherwise proposed in the specific Post-Removal Site Control Plan and approved by EPA. In addition, inspection reports on these activities will be prepared and submitted periodically in accordance with the requirements of Section 4 of Attachment J to the SOW.

Tables

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TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

EXISTING SOIL PCB DATA AND PROPOSED USAGE

Data Source	Sample Location	Sample ID	Depth Interval	Date Collected	Available Documentation (See Note 2)	Proposed Data Usage
OXBOW J						
A	FP-1	FP-1, 0-4'	0-4	10/05/89	Certificate of Analysis	Rejected
A	FP-1	FP-1, 4-8'	4-8	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	FP-1	FP-1, 8-12'	8-12	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	FP-1	FP-1, 12-16'	12-16	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	FP-1	FP-1, 16-20'	16-20	10/05/89	Certificate of Analysis	Rejected
A	FP-1	FP-1, 20-24'	20-24	10/05/89	Certificate of Analysis	Rejected
A	FP-1	FP-1, 24-28'	24-28	10/05/89	Certificate of Analysis	Rejected
A	FP-1	FP-1, 26-30'	28-30	10/05/89	Certificate of Analysis	Rejected
A	FP-2	FP-2, 0-4'	0-4	10/05/89	Certificate of Analysis	Rejected
A	FP-2	FP-2, 4-8'	4-8	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	FP-3	FP-3, 0-4'	0-4	10/05/89	Certificate of Analysis	Rejected
A	FP-3	FP-3, 4-8'	4-8	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	FP-4	FP-4, 0-4'	0-4	10/05/89	Certificate of Analysis	Rejected
A	FP-4	FP-4, 4-8'	4-8	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	SA-1	SA-1, 0-4'	0-4	10/05/89	Certificate of Analysis	Rejected
A	SA-1	SA-1, 4-8'	4-8	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	SA-1	SA-1, 8-12'	8-12	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	SA-2	SA-2, 0-4'	0-4	10/05/89	Certificate of Analysis	Rejected
A	SA-2	SA-2, 4-8'	4-8	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	SA-2	SA-2, 8-12'	8-12	10/05/89	Certificate of Analysis	Supplemental (Note 3)
A	YB-1	YB-1, 0-4'	0-4	10/06/89	Certificate of Analysis	Rejected
A	YB-1	YB-1, 4-8'	4-8	10/06/89	Certificate of Analysis	Supplemental (Note 3)
A	YB-2	YB-2, 0-4'	0-4	10/06/89	Certificate of Analysis	Rejected
A	YB-2	YB-2, 4-8'	4-8	10/06/89	Certificate of Analysis	Supplemental (Note 3)
A	YB-3	YB-3, 0-4'	0-4	10/06/89	Certificate of Analysis	Rejected
A	YB-3	YB-3, 4-8'	4-8	10/06/89	Certificate of Analysis	Supplemental (Note 3)
A	YB-4	YB-4, 0-4'	0-4	10/06/89	Certificate of Analysis	Rejected
A	YB-4	YB-4, 4-8'	4-8	10/06/89	Certificate of Analysis	Supplemental (Note 3)
A	YB-5	YB-5, 0-4'	0-4	10/06/89	Certificate of Analysis	Rejected
A	YB-5	YB-5, 4-8'	4-8	10/06/89	Certificate of Analysis	Supplemental (Note 3)
B	J-2S	ROJ2S	0-0.3	12/10/91	Certificate of Analysis	Rejected
B	J-3S	ROJ3S	0-0.3	12/10/91	Certificate of Analysis	Rejected
B	J-4S	ROJ4S	0-0.3	12/10/91	Certificate of Analysis	Rejected
B	OX-J-SS1	OX-J-SS1	0-0.3	9/16/94	Complete Laboratory Data Package	Rejected
B	OX-J-SS4	OX-J-SS4	0-0.3	9/16/94	Complete Laboratory Data Package	Rejected
B	OX-J-SS6	OX-J-SS6	0-0.3	9/16/94	Complete Laboratory Data Package	Rejected
D	B-1	B-1 2-4	2-4	7/5/01	Certificate of Analysis	Supplemental (Note 4)
D	B-2	B-2 2-6	2-6	7/5/01	Certificate of Analysis	Grid Characterization
D	B-3	B-3 2-6	2-6	7/5/01	Certificate of Analysis	Supplemental (Note 4)
OXBOW K						
B	K-1	ROO1B0002	0-2	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B0204	2-4	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B0406	4-6	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B0608	6-8	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B0810	8-10	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B1012	10-12	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B1214	12-14	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B1416	14-16	1/31/91	Certificate of Analysis	Grid Characterization
B	K-1	ROO1B1618	16-18	1/31/91	Certificate of Analysis	Rejected
B	K-1	ROO1B1820	18-20	1/31/91	Certificate of Analysis	Rejected
B	K-2	ROO2B0002	0-2	1/31/91	Certificate of Analysis	Grid Characterization
B	K-2	ROO2B0204	2-4	1/31/91	Certificate of Analysis	Grid Characterization
B	K-2	ROO2B0406	4-6	1/31/91	Certificate of Analysis	Grid Characterization
B	K-2	ROO2B0608	6-8	1/31/91	Certificate of Analysis	Grid Characterization
B	K-2	ROO2B0810	8-10	1/31/91	Certificate of Analysis	Grid Characterization
C	SBS-15	K10-10-33-SBS-15	0-0.5	4/28/98	Complete Laboratory Data Package	Grid Characterization
C	SBS-16	K10-10-33-SBS-16	0-0.5	4/28/98	Complete Laboratory Data Package	Grid Characterization
C	SBS-17	K10-10-33-SBS-17	0-0.5	4/28/98	Complete Laboratory Data Package	Grid Characterization
C	SBS-18	K10-10-33-SBS-18	0-0.5	4/28/98	Complete Laboratory Data Package	Grid Characterization

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

EXISTING SOIL PCB DATA AND PROPOSED USAGE

NOTES:

1. This table lists all existing PCB soil samples that Blasland, Bouck & Lee (BBL) and General Electric (GE) have on record for the Former Oxbow J and K Areas. Included in this list are soil samples that are proposed to be used to satisfy grid-based and supplemental sampling.
2. Grid Characterization = Result will be used to satisfy grid-based pre-design soil investigation requirements and will be incorporated into future RD/RA activities.
3. Supplemental (Note 3) = Results will not be used to satisfy specific pre-design soil investigation requirements due to use of an analytical method somewhat different from the current method, but will be used as supplemental data in RD/RA evaluations (as discussed in the text).
4. Supplemental (Note 4) = Data will be used for supplemental purposes only, due to no grid nodes within the sample's vicinity (i.e., within 25 feet for 50-foot grid nodes, or within 50 feet for 100-foot grid nodes) that cannot be characterized by other (e.g., closer) data.
5. Rejected = Result was rejected because the depth of the sample collected does not correspond with or is outside the scope of this project.
6. Data Source Legend:
   A = Results of the Soil Boring Program Conducted in the Vicinity of the Proposed Altresco Gas Line (Project No. NY05506), Geraghty & Miller Environmental Services, November 1989.
   B = *MCP Phase I and Interim Phase II Report for Former Housatonic River Oxbow Areas A, B, C, J, and K*; BBL; February 1996.
   C = *Supplemental Investigation Summary Report for Goodrich Brook (Parcel K10-10-33)*; BBL; May 18, 1998.
   D = *Environmental Site Assessment, 1400 East Street*; Scalise Associates, Inc.; July 2001.

TABLE 2

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

EXISTING SOIL APPENDIX IX+3 DATA AND PROPOSED USAGE

Data Source	Sample Location	Sample ID	Depth Interval	Date Collected	Analyte Group				Available Documentation	Proposed Data Usage
					VOCs	SVOCs	PCDDs/ PCDFs	Inorganics		
OXBOW J										
A	FP-1	FP-1	8-12	10/05/89	X	X			Certificate of Ananlysis	Appendix IX Supplemental
A	FP-2	FP-2	4-8	10/05/89	X	X			Certificate of Ananlysis	Appendix IX Supplemental
A	FP-3	FP-3	4-8	10/05/89	X	X			Certificate of Ananlysis	Appendix IX Supplemental
A	YB-2	YB-2	4-8	10/06/89	X	X			Certificate of Ananlysis	Appendix IX Supplemental
A	YB-4	YB-4	0-4	10/06/89	X	X			Certificate of Ananlysis	Rejected (Depth)
A	J-2S	ROJ2S	0-0.3	12/10/91	X	X	X	X	Certificate of Ananlysis (except SVOCs for which no documentation was found)	PCDD/PCDF Data - Rejected (Method); Other Data - Appendix IX Supplemental
A	J-3S	ROJ3S	0-0.3	12/10/91	X	X	X	X	Certificate of Ananlysis	PCDD/PCDF Data - Rejected (Method); Other Data - Appendix IX Supplemental
A	J-4S	ROJ4S	0-0.3	12/10/91	X	X	X	X	Certificate of Ananlysis	PCDD/PCDF Data - Rejected (Method); Other Data - Appendix IX Supplemental
B	OX-J-SS1	OX-J-SS1	0-0.3	9/16/94			X	X	Certificate of Ananlysis	Appendix IX Supplemental
B	OX-J-SS4	OX-J-SS4	0-0.3	9/16/94			X	X	Certificate of Ananlysis	Appendix IX Supplemental
B	OX-J-SS6	OX-J-SS6	0-0.3	9/16/94			X	X	Certificate of Ananlysis	Appendix IX Supplemental
OXBOW K										
B	K-1	ROO1B1416	14-16	1/31/91	X	X	X	X	Certificate of Ananlysis	Appendix IX Supplemental
B	K-2	ROO2B0810	8-10	1/31/91	X	X	X	X	Certificate of Ananlysis	Appendix IX Supplemental

NOTES:

1. This table lists all existing soil samples analyzed for some or all Appendix IX+3 constituents and corresponding parameter groups that Blasland, Bouck & Lee (BBL) and General Electric (GE) have on record for Former Oxbow Areas J and K.
2. X = analyses were performed for that parameter group.
3. Appendix IX Supplemental = Because a full laboratory data package was not located, the result will not be used to satisfy pre-design investigation requirements, but will be considered further in the future as part of RD/RA evaluations.
4. Rejected (Depth) = Result was rejected because the increment from which the sample was collected is too large for RD/RA evaluations.
5. Rejected (Method) = Result was rejected because only total PCDDs and PCDFs were analyzed, resulting in the inability to calculate TEQs.
6. Data Source Legend:
   A = Results of the Soil Boring Program Conducted in the vicinity of the Proposed Altresco Gas Line (Project No. NY05506), Geraghty & Miller Environmental Services, November 1989.
   B = *MCP Phase I and Interim Phase II Report for Former Housatonic River Oxbow Areas A, B, C, J, and K*; BBL; February 1996.

TABLE 3-A

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

COMMERCIAL/INDUSTRIAL AND RECREATIONAL PARCELS/AREAS

SUMMARY OF PROPOSED GRID CHARACTERIZATION OF PCBs

GRID COORDINATE	SAMPLE TYPE	DEPTH INCREMENT				
		0-1 FT.	1-3 FT.	3-6 FT.	6-10 FT.	10-15 FT.
GRID ROW: A						
A8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A8	RAA15-A8	RAA15-A8	RAA15-A8	RAA15-A8
A9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A9	---	---	---	---
A11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A11	RAA15-A11	RAA15-A11	RAA15-A11	RAA15-A11
A13	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A13	---	---	---	---
A15	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A15	RAA15-A15	RAA15-A15	RAA15-A15	RAA15-A15
A17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A17	---	---	---	---
A18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A18	RAA15-A18	RAA15-A18	RAA15-A18	RAA15-A18
A19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A19	---	---	---	---
A20	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A20	RAA15-A20	RAA15-A20	RAA15-A20	RAA15-A20
A21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A21	---	---	---	---
A22	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A22	RAA15-A22	RAA15-A22	RAA15-A22	RAA15-A22
A23	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A23	---	---	---	---
A24	EXISTING:	---	---	B-2	---	---
	PROPOSED:	RAA15-A24	RAA15-A24	---	RAA15-A24	RAA15-A24
A25	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A25	---	---	---	---
A26	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A26	RAA15-A26	RAA15-A26	RAA15-A26	RAA15-A26
A27	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-A27	---	---	---	---
GRID ROW: B						
B6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B6	---	---	---	---
B7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B7	---	---	---	---
B8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B8	---	---	---	---
B9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B9	---	---	---	---
B11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B11	---	---	---	---
B13	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B13	---	---	---	---
B15	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B15	---	---	---	---
B17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B17	---	---	---	---
B18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B18	---	---	---	---
B19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B19	---	---	---	---
B20	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B20	---	---	---	---
B21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B21	---	---	---	---
B22	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B22	---	---	---	---
B23	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B23	---	---	---	---
B24	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-B24	---	---	---	---
GRID ROW: C						
C4	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C4	RAA15-C4	RAA15-C4	RAA15-C4	RAA15-C4
C5	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C5	---	---	---	---

TABLE 3-A

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
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COMMERCIAL/INDUSTRIAL AND RECREATIONAL PARCELS/AREAS

SUMMARY OF PROPOSED GRID CHARACTERIZATION OF PCBs

GRID COORDINATE	SAMPLE TYPE	DEPTH INCREMENT				
		0-1 FT.	1-3 FT.	3-6 FT.	6-10 FT.	10-15 FT.
C6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C6	RAA15-C6	RAA15-C6	RAA15-C6	RAA15-C6
C7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C7	---	---	---	---
C8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C8	RAA15-C8	RAA15-C8	RAA15-C8	RAA15-C8
C9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C9	---	---	---	---
C11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C11	RAA15-C11	RAA15-C11	RAA15-C11	RAA15-C11
C13	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C13	---	---	---	---
C15	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C15	RAA15-C15	RAA15-C15	RAA15-C15	RAA15-C15
C17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C17	---	---	---	---
C18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C18	RAA15-C18	RAA15-C18	RAA15-C18	RAA15-C18
C19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C19	---	---	---	---
C20	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C20	RAA15-C20	RAA15-C20	RAA15-C20	RAA15-C20
C21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C21	---	---	---	---
C22	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C22	RAA15-C22	RAA15-C22	RAA15-C22	RAA15-C22
C23	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C23	---	---	---	---
C24	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C24	RAA15-C24	RAA15-C24	RAA15-C24	RAA15-C24
C25	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-C25	---	---	---	---
GRID ROW: D						
D2	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D2	---	---	---	---
D3	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D3	---	---	---	---
D4	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D4	---	---	---	---
D5	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D5	---	---	---	---
D6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D6	---	---	---	---
D7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D7	---	---	---	---
D8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D8	---	---	---	---
D9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D9	---	---	---	---
D11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D11	---	---	---	---
D13	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D13	---	---	---	---
D15	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D15	---	---	---	---
D17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D17	---	---	---	---
D20	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D20	---	---	---	---
D21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D21	---	---	---	---
D22	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D22	---	---	---	---
D23	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D23	---	---	---	---
D24	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D24	---	---	---	---
D25	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D25	---	---	---	---

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SUMMARY OF PROPOSED GRID CHARACTERIZATION OF PCBs

GRID COORDINATE	SAMPLE TYPE	DEPTH INCREMENT				
		0-1 FT.	1-3 FT.	3-6 FT.	6-10 FT.	10-15 FT.
D26	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D26	---	---	---	---
D27	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-D27	---	---	---	---
GRID ROW: E						
E1	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E1	RAA15-E1	RAA15-E1	RAA15-E1	RAA15-E1
E2	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E2	RAA15-E2	RAA15-E2	RAA15-E2	RAA15-E2
E3	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E3	---	---	---	---
E4	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E4	RAA15-E4	RAA15-E4	RAA15-E4	RAA15-E4
E5	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E5	---	---	---	---
E6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E6	RAA15-E6	RAA15-E6	RAA15-E6	RAA15-E6
E7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E7	---	---	---	---
E8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E8	RAA15-E8	RAA15-E8	RAA15-E8	RAA15-E8
E9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E9	---	---	---	---
E11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E11	RAA15-E11	RAA15-E11	RAA15-E11	RAA15-E11
E13	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E13	---	---	---	---
E15	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E15	RAA15-E15	RAA15-E15	RAA15-E15	RAA15-E15
E18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E18	RAA15-E18	RAA15-E18	RAA15-E18	RAA15-E18
E19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E19	---	---	---	---
E20	EXISTING:	SBS-18	---	---	---	---
	PROPOSED:	---	RAA15-E20	RAA15-E20	RAA15-E20	RAA15-E20
E21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E21	---	---	---	---
E22	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E22	RAA15-E22	RAA15-E22	RAA15-E22	RAA15-E22
E23	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-E23	---	---	---	---
GRID ROW: F						
F1	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F1	---	---	---	---
F2	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F2	---	---	---	---
F3	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F3	---	---	---	---
F4	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F4	---	---	---	---
F5	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F5	---	---	---	---
F6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F6	---	---	---	---
F7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F7	---	---	---	---
F8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F8	---	---	---	---
F9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F9	---	---	---	---
F11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F11	---	---	---	---
F13	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F13	---	---	---	---
F17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F17	---	---	---	---
F18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F18	---	---	---	---

TABLE 3-A

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SUMMARY OF PROPOSED GRID CHARACTERIZATION OF PCBs

GRID COORDINATE	SAMPLE TYPE	DEPTH INCREMENT				
		0-1 FT.	1-3 FT.	3-6 FT.	6-10 FT.	10-15 FT.
F19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F19	---	---	---	---
F20	EXISTING:	SBS-17	---	---	---	---
	PROPOSED:	---	---	---	---	---
F21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F21	---	---	---	---
F22	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F22	---	---	---	---
F23	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F23	---	---	---	---
F24	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-F24	---	---	---	---
GRID ROW: G						
G1	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G1	---	---	---	---
G2	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G2	RAA15-G2	RAA15-G2	RAA15-G2	RAA15-G2
G3	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G3	---	---	---	---
G4	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G4	RAA15-G4	RAA15-G4	RAA15-G4	RAA15-G4
G5	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G5	---	---	---	---
G6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G6	RAA15-G6	RAA15-G6	RAA15-G6	RAA15-G6
G7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G7	---	---	---	---
G9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G9	---	---	---	---
G11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G11	RAA15-G11	RAA15-G11	RAA15-G11	RAA15-G11
G13	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G13	---	---	---	---
G15	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G15	RAA15-G15	RAA15-G15	RAA15-G15	RAA15-G15
G17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G17	---	---	---	---
G18	EXISTING:	K-2	K-2	K-2	K-2	---
	PROPOSED:	---	---	---	---	RAA15-G18
G19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G19	---	---	---	---
G20	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G20	RAA15-G20	RAA15-G20	RAA15-G20	RAA15-G20
G21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G21	---	---	---	---
G22	EXISTING:	SBS-16	---	---	---	---
	PROPOSED:	---	RAA15-G22	RAA15-G22	RAA15-G22	RAA15-G22
G23	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-G23	---	---	---	---
GRID ROW: H						
H2	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H2	---	---	---	---
H3	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H3	---	---	---	---
H4	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H4	---	---	---	---
H5	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H5	---	---	---	---
H7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H7	---	---	---	---
H8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H8	---	---	---	---
H9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H9	---	---	---	---
H11	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H11	---	---	---	---
H15	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H15	---	---	---	---

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SUMMARY OF PROPOSED GRID CHARACTERIZATION OF PCBs

GRID COORDINATE	SAMPLE TYPE	DEPTH INCREMENT				
		0-1 FT.	1-3 FT.	3-6 FT.	6-10 FT.	10-15 FT.
H17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H17	---	---	---	---
H18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H18	---	---	---	---
H19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H19	---	---	---	---
H20	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H20	---	---	---	---
H21	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-H21	---	---	---	---
H22	EXISTING:	SBS-15	---	---	---	---
	PROPOSED:	---	---	---	---	---
GRID ROW: J						
J2	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J2	RAA15-J2	RAA15-J2	RAA15-J2	RAA15-J2
J3	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J3	---	---	---	---
J4	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J4	RAA15-J4	RAA15-J4	RAA15-J4	RAA15-J4
J6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J6	RAA15-J6	RAA15-J6	RAA15-J6	RAA15-J6
J7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J7	---	---	---	---
J8	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J8	RAA15-J8	RAA15-J8	RAA15-J8	RAA15-J8
J9	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J9	---	---	---	---
J17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J17	---	---	---	---
J18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J18	RAA15-J18	RAA15-J18	RAA15-J18	RAA15-J18
J19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J19	---	---	---	---
J20	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-J20	RAA15-J20	RAA15-J20	RAA15-J20	RAA15-J20
GRID ROW: L						
L2	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L2	---	---	---	---
L3	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L3	---	---	---	---
L5	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L5	---	---	---	---
L6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L6	---	---	---	---
L7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L7	---	---	---	---
L17	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L17	---	---	---	---
L18	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L18	---	---	---	---
L19	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-L19	---	---	---	---
GRID ROW: N						
N6	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-N6	RAA15-N6	RAA15-N6	RAA15-N6	RAA15-N6
N7	EXISTING:	---	---	---	---	---
	PROPOSED:	RAA15-N7	---	---	---	---

NOTES:

1. This table defines the soil sampling locations which will be utilized to satisfy grid-based sampling requirements for PCBs for the Oxbow J and K Areas pre-design investigation.
2. Other existing soil data will not be utilized in support of the pre-design sampling requirements, but may be used in the design of the Removal Action (as discussed in the text).
3. Shaded depth increments indicate that soil sampling is not required.
4. Existing samples are assumed to represent a grid node if they are located less than 50 feet from 100-foot grid nodes or less than 25 feet from 50-foot grid nodes.
5. Existing sample depths are assumed to satisfy the depth interval requirements (i.e., either 0-1, 1-3, 3-6, 6-10, or 10-15 feet) if the existing depths) constitute at least 50% of the depth requirement. For example, existing data for 10-12 foot and 12-14 foot depths will satisfy the 10-15 foot requirement at a node, but existing data for the 10-12 foot depth alone will not.
6. This table does not include all existing soil PCB samples collected at Oxbow Areas J and K. Refer to Table 1 for a complete list of all existing soil PCB samples.

TABLE 3B

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

RESIDENTIAL PARCELS

SUMMARY OF PROPOSED GRID CHARACTERIZATION OF PCBs

GRID COORDINATE	SAMPLE TYPE	DEPTH INCREMENT (See Note 3)							
		0-1 FT.	1-3 FT.	3 - 5 FT.	5 - 7 FT.	7 - 9 FT.	9 - 11 FT	11 - 13 FT.	13 - 15 FT.
GRID ROW: H									
H13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-H13	(See Note 4)						
H14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-H14	---	---	---	---	---	---	---
GRID ROW: I									
I11	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-I11	---	---	---	---	---	---	---
I12	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-I12	---	---	---	---	---	---	---
I13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-I13	---	---	---	---	---	---	---
I14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-I14	---	---	---	---	---	---	---
I15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-I15	---	---	---	---	---	---	---
GRID ROW: J									
J10	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-J10	---	---	---	---	---	---	---
J11	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-J11	(See Note 4)						
J12	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-J12	---	---	---	---	---	---	---
J13	EXISTING:	---	K-1	K-1	K-1	K-1	K-1	K-1	K-1
	PROPOSED:	RAA15-J13	---	---	---	---	---	---	---
J14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-J14	---	---	---	---	---	---	---
J15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-J15	RAA15-J15	RAA15-J15	RAA15-J15	RAA15-J15	RAA15-J15	RAA15-J15	RAA15-J15
GRID ROW: K									
K9	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K9	---	---	---	---	---	---	---
K10	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K10	---	---	---	---	---	---	---
K11	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K11	---	---	---	---	---	---	---
K12	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K12	---	---	---	---	---	---	---
K13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K13	---	---	---	---	---	---	---
K14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K14	---	---	---	---	---	---	---
K15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K15	---	---	---	---	---	---	---
K16	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-K16	---	---	---	---	---	---	---
GRID ROW: L									
L9	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L9	(See Note 4)						
L10	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L10	---	---	---	---	---	---	---
L11	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L11	RAA15-L11	RAA15-L11	RAA15-L11	RAA15-L11	RAA15-L11	RAA15-L11	RAA15-L11
L12	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L12	---	---	---	---	---	---	---
L13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L13	RAA15-L13	RAA15-L13	RAA15-L13	RAA15-L13	RAA15-L13	RAA15-L13	RAA15-L13
L14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L14	---	---	---	---	---	---	---
L15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L15	(See Note 4)						
L16	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-L16	---	---	---	---	---	---	---
GRID ROW: M									
M10	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M10	---	---	---	---	---	---	---
M11	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M11	---	---	---	---	---	---	---

TABLE 3B

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

RESIDENTIAL PARCELS

SUMMARY OF PROPOSED GRID CHARACTERIZATION OF PCBs

GRID COORDINATE	SAMPLE TYPE	DEPTH INCREMENT (See Note 3)							
		0-1 FT.	1-3 FT.	3 - 5 FT.	5 - 7 FT.	7 - 9 FT.	9 - 11 FT	11 - 13 FT.	13 - 15 FT.
M12	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M12	---	---	---	---	---	---	---
M13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M13	---	---	---	---	---	---	---
M14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M14	---	---	---	---	---	---	---
M15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M15	---	---	---	---	---	---	---
M16	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M16	---	---	---	---	---	---	---
M17	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-M17	---	---	---	---	---	---	---
GRID ROW: N									
N11	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-N11	(See Note 4)						
N12	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-N12	---	---	---	---	---	---	---
N13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-N13	(See Note 4)						
N14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-N14	---	---	---	---	---	---	---
N15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-N15	RAA15-N15	RAA15-N15	RAA15-N15	RAA15-N15	RAA15-N15	RAA15-N15	RAA15-N15
N16	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-N16	---	---	---	---	---	---	---
N17	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-N17	(See Note 4)						
GRID ROW: O									
O11	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-O11	---	---	---	---	---	---	---
O13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-O13	---	---	---	---	---	---	---
O14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-O14	---	---	---	---	---	---	---
O15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-O15	---	---	---	---	---	---	---
O16	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-O16	---	---	---	---	---	---	---
GRID ROW: P									
P12	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-P12	---	---	---	---	---	---	---
P13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-P13	RAA15-P13	RAA15-P13	RAA15-P13	RAA15-P13	RAA15-P13	RAA15-P13	RAA15-P13
P14	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-P14	---	---	---	---	---	---	---
P15	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-P15	(See Note 4)						
GRID ROW: Q									
Q13	EXISTING:	---	---	---	---	---	---	---	---
	PROPOSED:	RAA15-Q13	---	---	---	---	---	---	---

NOTES:

1. This table defines the soil sampling locations which will be utilized to satisfy grid-based sampling requirements for PCBs for the Former Oxbow J and K Areas pre-design investigation.
2. Other existing soil data will not be utilized in support of the pre-design sampling requirements, but may be used in the design of the Removal Action (as discussed in the text).
3. Actual depth to be determined by initial borings collected for characterization.
4. Sampling scope to be determined following initial borings collected for characterization.
5. Shaded depth increments indicate that soil sampling is not required.
6. Existing samples are assumed to represent a grid node if they are located less than 25 feet from 50-foot grid nodes or less than 12.5 feet for 25-foot grid nodes.
7. Existing sample depths are assumed to satisfy the depth interval requirements (i.e., either 0-1, 1-3, 3-6, 6-10, or 10-15 feet) if the existing depths) constitute at least 50% of the depth requirement. For example, existing data for 10-12 foot and 12-14 foot depths will satisfy the 10-15 foot requirement at a node, but existing data for the 10-12 foot depth alone will not.
8. This table does not include all existing soil PCB samples collected at Oxbow Areas J and K. Refer to Table 1 for a complete list of all existing soil PCB samples.

TABLE 4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

COMMERCIAL/INDUSTRIAL AND RECREATIONAL PARCELS/AREAS

PROPOSED SOIL SAMPLING LOCATIONS, DEPTHS, AND PARAMETERS

SAMPLE ID	GRID COORDINATE	SAMPLE DEPTH	ANALYSES				
			PCBs	VOCs	SVOCs	INORGANICS	PCDDs/PCDFs
RAA15-A8	A8	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-A9	A9	0-1 ft	X	X	X	X	X
RAA15-A11	A11	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-A13	A13	0-1 ft	X	--	--	--	--
RAA15-A15	A15	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-A17	A17	0-1 ft	X	--	--	--	--
RAA15-A18	A18	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-A19	A19	0-1 ft	X	X	X	X	X
		1-3 ft	--	X	X	X	X
		3-6 ft	--	X	X	X	X
		10-15 ft	--	X	X	X	X
RAA15-A20	A20	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-A21	A21	0-1 ft	X	--	--	--	--
RAA15-A22	A22	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-A23	A23	0-1 ft	X	--	--	--	--
RAA15-A24	A24	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-A25	A25	0-1 ft	X	--	--	--	--
RAA15-A26	A26	0-1 ft	X	X	X	X	X
		1-3 ft	X	--	--	--	--
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-A27	A27	0-1 ft	X	--	--	--	--
RAA15-B6	B6	0-1 ft	X	--	--	--	--
RAA15-B7	B7	0-1 ft	X	X	X	X	X
RAA15-B8	B8	0-1 ft	X	--	--	--	--
RAA15-B9	B9	0-1 ft	X	--	--	--	--
RAA15-B11	B11	0-1 ft	X	X	X	X	X
RAA15-B13	B13	0-1 ft	X	--	--	--	--
RAA15-B15	B15	0-1 ft	X	X	X	X	X
RAA15-B17	B17	0-1 ft	X	--	--	--	--
RAA15-B18	B18	0-1 ft	X	X	X	X	X
RAA15-B19	B19	0-1 ft	X	--	--	--	--
RAA15-B20	B20	0-1 ft	X	--	--	--	--
RAA15-B21	B21	0-1 ft	X	X	X	X	X
		6-10 ft	--	X	X	X	X
RAA15-B22	B22	0-1 ft	X	--	--	--	--
		1-3 ft	--	X	X	X	X
RAA15-B23	B23	0-1 ft	X	--	--	--	--
RAA15-B24	B24	0-1 ft	X	X	X	X	X

TABLE 4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

COMMERCIAL/INDUSTRIAL AND RECREATIONAL PARCELS/AREAS

PROPOSED SOIL SAMPLING LOCATIONS, DEPTHS, AND PARAMETERS

SAMPLE ID	GRID COORDINATE	SAMPLE DEPTH	ANALYSES				
			PCBs	VOCs	SVOCs	INORGANICS	PCDDs/PCDFs
RAA15-C4	C4	0-1 ft	X	X	X	X	X
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-C5	C5	0-1 ft	X	--	--	--	--
RAA15-C6	C6	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-C7	C7	0-1 ft	X	--	--	--	--
RAA15-C8	C8	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-C9	C9	0-1 ft	X	--	--	--	--
RAA15-C11	C11	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-C13	C13	0-1 ft	X	--	--	--	--
RAA15-C15	C15	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-C17	C17	0-1 ft	X	X	X	X	X
RAA15-C18	C18	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-C19	C19	0-1 ft	X	X	X	X	X
RAA15-C20	C20	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-C21	C21	0-1 ft	X	--	--	--	--
RAA15-C22	C22	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-C23	C23	0-1 ft	X	X	X	X	X
RAA15-C24	C24	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-C25	C25	0-1 ft	X	--	--	--	--
RAA15-D2	D2	0-1 ft	X	--	--	--	--
RAA15-D3	D3	0-1 ft	X	X	X	X	X
RAA15-D4	D4	0-1 ft	X	--	--	--	--
RAA15-D5	D5	0-1 ft	X	--	--	--	--
RAA15-D6	D6	0-1 ft	X	--	--	--	--
RAA15-D7	D7	0-1 ft	X	--	--	--	--
RAA15-D8	D8	0-1 ft	X	X	X	X	X
RAA15-D9	D9	0-1 ft	X	--	--	--	--
RAA15-D11	D11	0-1 ft	X	--	--	--	--
RAA15-D13	D13	0-1 ft	X	X	X	X	X
RAA15-D15	D15	0-1 ft	X	--	--	--	--
RAA15-D17	D17	0-1 ft	X	--	--	--	--
RAA15-D20	D20	0-1 ft	X	--	--	--	--
RAA15-D21	D21	0-1 ft	X	X	X	X	X

TABLE 4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

COMMERCIAL/INDUSTRIAL AND RECREATIONAL PARCELS/AREAS

PROPOSED SOIL SAMPLING LOCATIONS, DEPTHS, AND PARAMETERS

SAMPLE ID	GRID COORDINATE	SAMPLE DEPTH	ANALYSES				
			PCBs	VOCs	SVOCs	INORGANICS	PCDDs/PCDFs
RAA15-D22	D22	0-1 ft	X	--	--	--	--
RAA15-D23	D23	0-1 ft	X	--	--	--	--
RAA15-D24	D24	0-1 ft	X	--	--	--	--
RAA15-D25	D25	0-1 ft	X	X	X	X	X
RAA15-D26	D26	0-1 ft	X	--	--	--	--
RAA15-D27	D27	0-1 ft	X	X	X	X	X
RAA15-E1	E1	0-1 ft	X	X	X	X	X
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-E2	E2	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-E3	E3	0-1 ft	X	--	--	--	--
RAA15-E4	E4	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-E5	E5	0-1 ft	X	X	X	X	X
RAA15-E6	E6	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-E7	E7	0-1 ft	X	X	X	X	X
RAA15-E8	E8	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-E9	E9	0-1 ft	X	--	--	--	--
RAA15-E11	E11	0-1 ft	X	X	X	X	X
		1-3 ft	X	--	--	--	--
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-E13	E13	0-1 ft	X	--	--	--	--
RAA15-E15	E15	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-E18	E18	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-E19	E19	0-1 ft	X	--	--	--	--
RAA15-E20	E20	1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-E21	E21	0-1 ft	X	X	X	X	X
RAA15-E22	E22	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-E23	E23	0-1 ft	X	--	--	--	--
RAA15-F1	F1	0-1 ft	X	--	--	--	--
RAA15-F2	F2	0-1 ft	X	X	X	X	X
		1-3 ft	--	X	X	X	X
		3-6 ft	--	X	X	X	X
		6-10 ft	--	X	X	X	X

TABLE 4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

COMMERCIAL/INDUSTRIAL AND RECREATIONAL PARCELS/AREAS

PROPOSED SOIL SAMPLING LOCATIONS, DEPTHS, AND PARAMETERS

SAMPLE ID	GRID COORDINATE	SAMPLE DEPTH	ANALYSES				
			PCBs	VOCs	SVOCs	INORGANICS	PCDDs/PCDFs
RAA15-F3	F3	0-1 ft	X	--	--	--	--
RAA15-F4	F4	0-1 ft	X	--	--	--	--
RAA15-F5	F5	0-1 ft	X	--	--	--	--
RAA15-F6	F6	0-1 ft	X	--	--	--	--
RAA15-F7	F7	0-1 ft	X	--	--	--	--
RAA15-F8	F8	0-1 ft	X	--	--	--	--
RAA15-F9	F9	0-1 ft	X	--	--	--	--
RAA15-F11	F11	0-1 ft	X	--	--	--	--
RAA15-F13	F13	0-1 ft	X	--	--	--	--
RAA15-F17	F17	0-1 ft	X	--	--	--	--
RAA15-F18	F18	0-1 ft	X	--	--	--	--
RAA15-F19	F19	0-1 ft	X	X	X	X	X
RAA15-F21	F21	0-1 ft	X	--	--	--	--
RAA15-F22	F22	0-1 ft	X	X	X	X	X
RAA15-F23	F23	0-1 ft	X	--	--	--	--
RAA15-F24	F24	0-1 ft	X	X	X	X	X
		1-3 ft	--	X	X	X	X
RAA15-G1	G1	0-1 ft	X	--	--	--	--
RAA15-G2	G2	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-G3	G3	0-1 ft	X	--	--	--	--
RAA15-G4	G4	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-G5	G5	0-1 ft	X	--	--	--	--
RAA15-G6	G6	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-G7	G7	0-1 ft	X	--	--	--	--
RAA15-G9	G9	0-1 ft	X	--	--	--	--
RAA15-G11	G11	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-G13	G13	0-1 ft	X	--	--	--	--
RAA15-G15	G15	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-G17	G17	0-1 ft	X	X	X	X	X
RAA15-G18	G18	10-15 ft.	X	--	--	--	--
RAA15-G19	G19	0-1 ft	X	--	--	--	--
RAA15-G20	G20	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-G21	G21	0-1 ft	X	--	--	--	--
RAA15-G22	G22	1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-G23	G23	0-1 ft	X	--	--	--	--
RAA15-H2	H2	0-1 ft	X	X	X	X	X
RAA15-H3	H3	0-1 ft	X	--	--	--	--
RAA15-H4	H4	0-1 ft	X	--	--	--	--
RAA15-H5	H5	0-1 ft	X	--	--	--	--

TABLE 4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

COMMERCIAL/INDUSTRIAL AND RECREATIONAL PARCELS/AREAS

PROPOSED SOIL SAMPLING LOCATIONS, DEPTHS, AND PARAMETERS

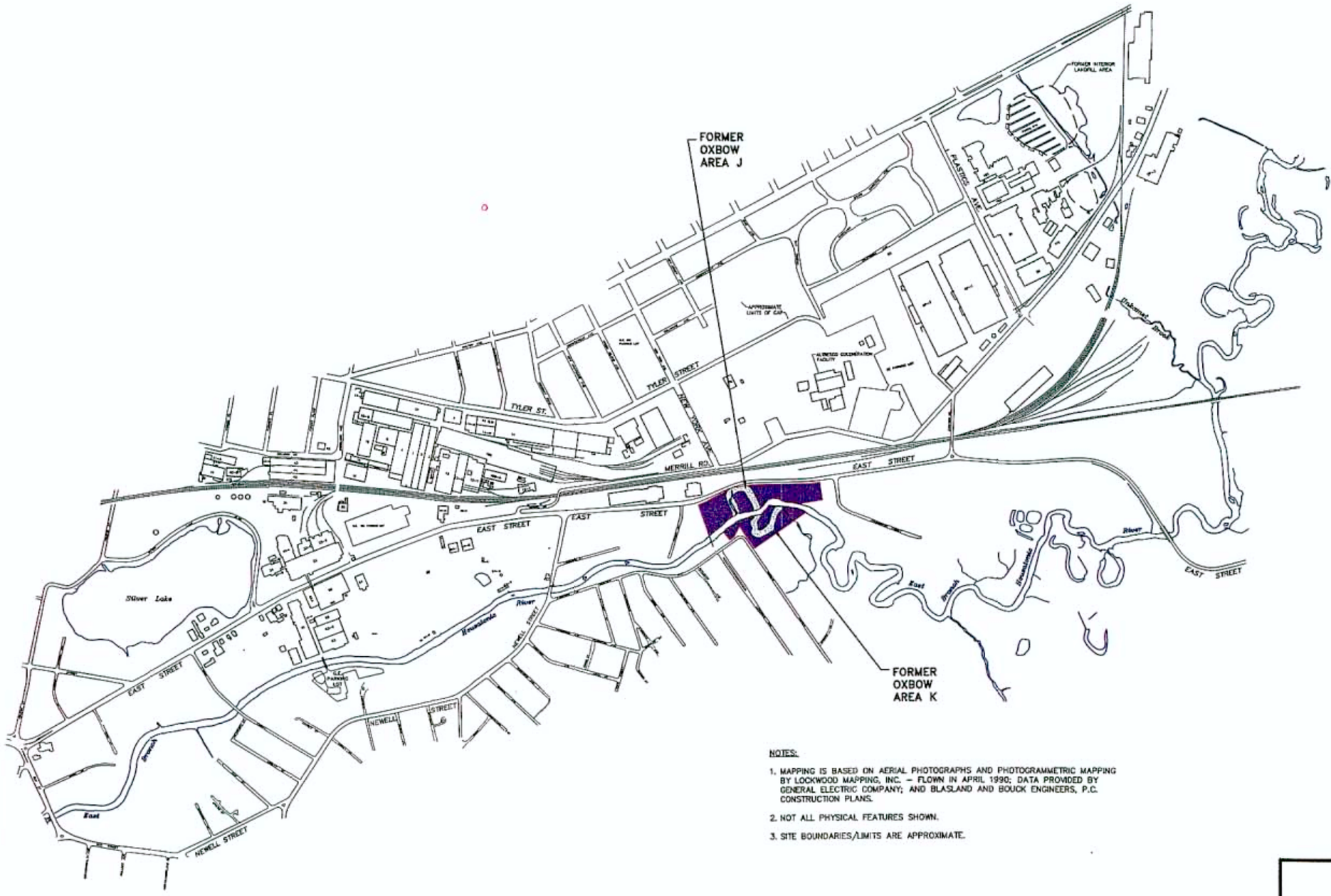
SAMPLE ID	GRID COORDINATE	SAMPLE DEPTH	ANALYSES				
			PCBs	VOCs	SVOCs	INORGANICS	PCDDs/PCDFs
RAA15-H7	H7	0-1 ft	X	--	--	--	--
RAA15-H8	H8	0-1 ft	X	X	X	X	X
		1-3 ft	--	X	X	X	X
		10-15 ft	--	X	X	X	X
RAA15-H9	H9	0-1 ft	X	--	--	--	--
RAA15-H11	H11	0-1 ft	X	X	X	X	X
RAA15-H15	H15	0-1 ft	X	X	X	X	X
RAA15-H17	H17	0-1 ft	X	--	--	--	--
RAA15-H18	H18	0-1 ft	X	X	X	X	X
RAA15-H19	H19	0-1 ft	X	--	--	--	--
RAA15-H20	H20	0-1 ft	X	--	--	--	--
RAA15-H21	H21	0-1 ft	X	X	X	X	X
RAA15-J2	J2	0-1 ft	X	X	X	X	X
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-J3	J3	0-1 ft	X	--	--	--	--
RAA15-J4	J4	0-1 ft	X	X	X	X	X
		1-3 ft	X	--	--	--	--
		3-6 ft	X	X	X	X	X
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-J6	J6	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	X	X	X	X
RAA15-J7	J7	0-1 ft	X	X	X	X	X
RAA15-J8	J8	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-J9	J9	0-1 ft	X	--	--	--	--
RAA15-J17	J17	0-1 ft	X	--	--	--	--
RAA15-J18	J18	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	X	X	X	X
		10-15 ft	X	--	--	--	--
RAA15-J19	J19	0-1 ft	X	X	X	X	X
RAA15-J20	J20	0-1 ft	X	--	--	--	--
		1-3 ft	X	--	--	--	--
		3-6 ft	X	--	--	--	--
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-L2	L2	0-1 ft	X	--	--	--	--
RAA15-L3	L3	0-1 ft	X	X	X	X	X
RAA15-L5	L5	0-1 ft	X	--	--	--	--
RAA15-L6	L6	0-1 ft	X	X	X	X	X
RAA15-L7	L7	0-1 ft	X	--	--	--	--
RAA15-L17	L17	0-1 ft	X	X	X	X	X
RAA15-L18	L18	0-1 ft	X	--	--	--	--
RAA15-L19	L19	0-1 ft	X	--	--	--	--
RAA15-N6	N6	0-1 ft	X	--	--	--	--
		1-3 ft	X	X	X	X	X
		3-6 ft	X	X	X	X	X
		6-10 ft	X	--	--	--	--
		10-15 ft	X	--	--	--	--
RAA15-N7	N7	0-1 ft	X	--	--	--	--

NOTES:

1. This table identifies soil samples to be collected and the analyses to be performed as part of the pre-design investigation at Oxbow Areas J and K.
2. The Appendix IX+3 sample depth intervals shown above may be modified in the field based on the results of photoionization detector (PID) readings and visual observations at the time of sample collection.

Figures

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists



LEGEND:

- FORMER OXBOW AREAS J AND K
- FORMER OXBOW/LOW-LYING 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 AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES/LIMITS ARE APPROXIMATE.

0 500' 1000'
APPROXIMATE SCALE

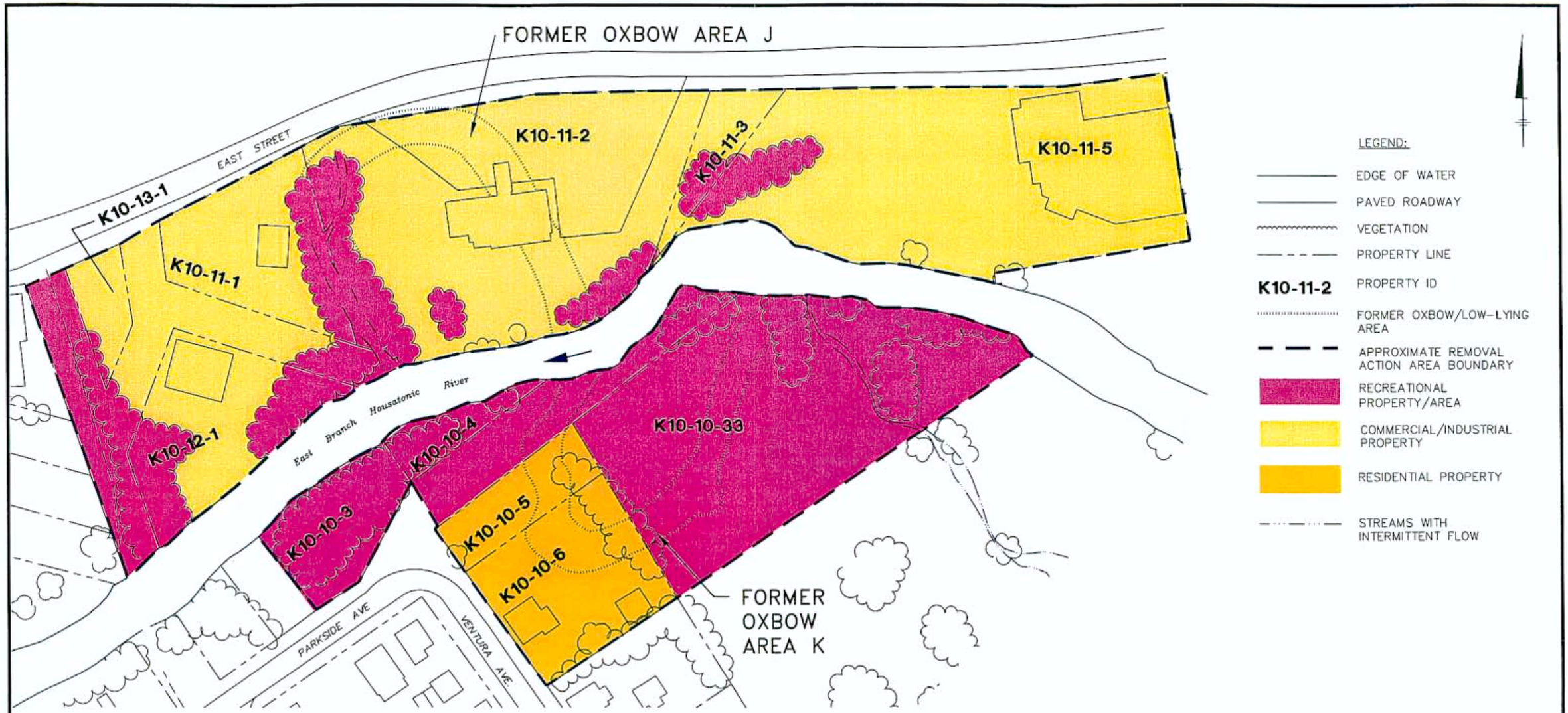
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FORMER OXBOW AREAS J AND K

SITE LOCATION

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 1

X: NONE
L: ON=*, OFF=REF*
P: PAGESET/PLT-BL (PLTHALF)
6/26/02 SYR-54-LAS LAF DMW
N/30154001/30154G18.DWG



NOTES:

1. THE BASE MAP FEATURES PRESENTED ON THIS FIGURE WERE PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. TAX ASSESSORS' PARCEL IDENTIFICATION NUMBERS AND BOUNDARY INFORMATION OBTAINED FROM CITY OF PITTSFIELD'S TAX ASSESSOR'S OFFICE, CURRENT THROUGH MAY 2002.
3. PROPERTY USE DESIGNATIONS REFLECT CURRENT AND FORESEEABLE FUTURE USE.
4. RECREATIONAL AREAS DEPICTED AT FORMER OXBOW AREA J ARE SUBJECT TO MODIFICATION BASED ON DISCUSSIONS WITH EPA.

0 100' 200'
GRAPHIC SCALE

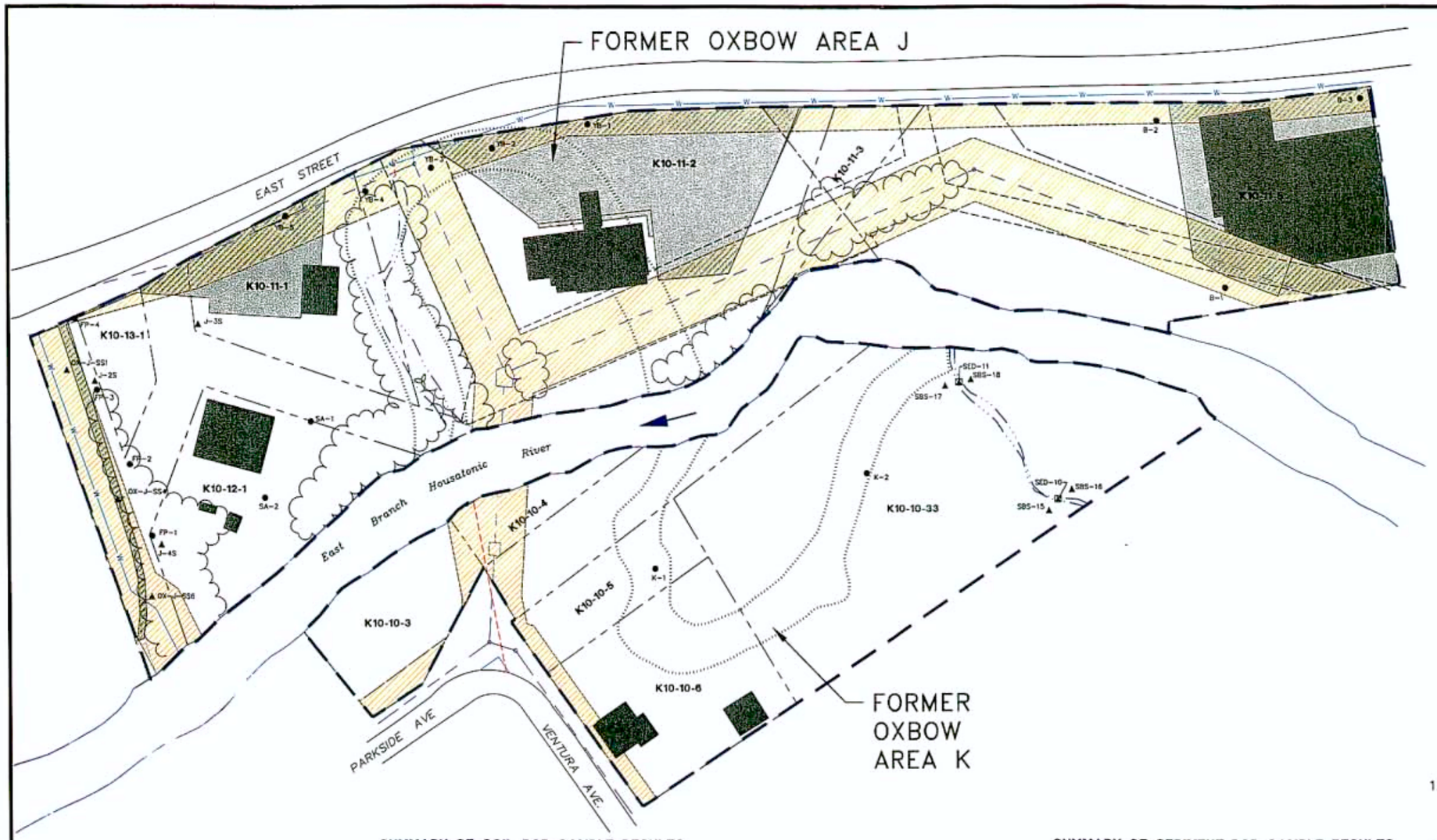
GENERAL ELECTRIC COMPANY
PITTSFIELD MASSACHUSETTS
FORMER OXBOW AREAS J AND K

SITE MAP

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2

X: 30154X04.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-BL (PLTHALF)
6/26/02 SYR-54-LAF LJP DMW
N/30154001/30154B01.DWG



LEGEND

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY
- PROPERTY LINE
- WESTERN MASS. ELECTRIC CO. EASEMENT
- SEWER EASEMENT
- VEGETATION
- K10-10-6 PROPERTY ID
- ▲ OX-J-SS4 EXISTING SURFACE SOIL SAMPLE LOCATION
- ● YB-3 EXISTING SOIL BORING LOCATION (1-FOOT OR GREATER SAMPLE DEPTH)
- ■ SED-11 EXISTING SEDIMENT SAMPLE LOCATION
- APPROXIMATE SEWER LOCATION
- APPROXIMATE STORM DRAIN LOCATION
- APPROXIMATE WATER MAIN LOCATION
- BUILDING
- PAVED AREA
- FORMER OXBOW/LOW-LYING AREA
- APPROXIMATE LOCATION OF BAND SURROUNDING SUBSURFACE UTILITIES (25 FEET WIDE ON EACH SIDE OF UTILITY)
- STREAMS WITH INTERMITTENT FLOW

GENERAL NOTES:

1. BASE MAP MODIFIED FROM PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC – FLOWN IN APRIL 1990.
2. FORMER RIVER CHANNEL AND OXBOW/LOW-LYING AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. EASEMENTS AND PROPERTY LINES ARE APPROXIMATE.

0 100' 200'

GRAPHIC SCALE

SUMMARY OF SOIL PCB SAMPLE RESULTS

(PPM DRY WT.)(SAMPLE INCREMENTS IN FEET)

Location ID	0 – 0.3	0 – 0.5	2 – 4	4 – 6	6 – 8	8 – 10	10 – 12	12 – 14	14 – 16	16 – 18	18 – 20	20 – 24	24 – 28	28 – 30
FP-1	0-4ft: ND(0.05)			4-8ft: ND(0.05)		8-12ft: ND(0.05)		12-16ft: ND(0.05)		16-20ft: ND(0.05)		ND(0.05)	ND(0.05)	ND(0.05)
FP-2	0-4ft: 13			4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
FP-3	0-4ft: 2.8			4-8ft: 0.38		--	--	--	--	--	--	--	--	--
FP-4	0-4ft: 0.19			4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
J-2S	0.53	--	--	--	--	--	--	--	--	--	--	--	--	--
J-3S	ND(0.022)	--	--	--	--	--	--	--	--	--	--	--	--	--
J-4S	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--
OX-J-SS1	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--
OX-J-SS4	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--
OX-J-SS6	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--
SA-1	0-4ft: 0.25			4-8ft: ND(0.05)		8-12ft: 0.05		--	--	--	--	--	--	--
SA-2	0-4ft: 0.2			4-8ft: 0.13		8-12ft: ND(0.05)		--	--	--	--	--	--	--
YB-1	0-4ft: 0.95			4-8ft: 0.43		--	--	--	--	--	--	--	--	--
YB-2	0-4ft: 2.3			4-8ft: 0.8		--	--	--	--	--	--	--	--	--
YB-3	0-4ft: 0.57			4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
YB-4	0-4ft: 0.55			4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
YB-5	0-4ft: 1.8			4-8ft: 0.08		--	--	--	--	--	--	--	--	--
K-1	0-2ft: 0.15		ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	--	--	--
K-2	0-2ft: 0.07		ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	--	--	--	--	--	--	--	--
SBS-15		0.69	--	--	--	--	--	--	--	--	--	--	--	--
SBS-16		0.22	--	--	--	--	--	--	--	--	--	--	--	--
SBS-17		1.2	--	--	--	--	--	--	--	--	--	--	--	--
SBS-18		0.88	--	--	--	--	--	--	--	--	--	--	--	--
B-1	--	--	ND(0.250)	--	--	--	--	--	--	--	--	--	--	--
B-2	--	--	2-6ft: 8.58			--	--	--	--	--	--	--	--	--
B-3	--	--	2-6ft: 2.27			--	--	--	--	--	--	--	--	--

TABLE NOTES:

1. -- = No sample collected.
2. ND = Not detected.
3. (0.05) = Detection limit.

SUMMARY OF SEDIMENT PCB SAMPLE RESULTS

(PPM DRY WT.)(SAMPLE INCREMENTS IN FEET)

Location ID	0 – 0.5	0.5 – 1	1 – 1.5
SED-10	5.3	6.7	3.5
SED-11	6.4	0.43	ND(0.037)

X: 30154X05.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-BL (PLTHALF)
6/26/02 SYR-54-KMD LJP DMW
N/30154001/30154G11.DWG

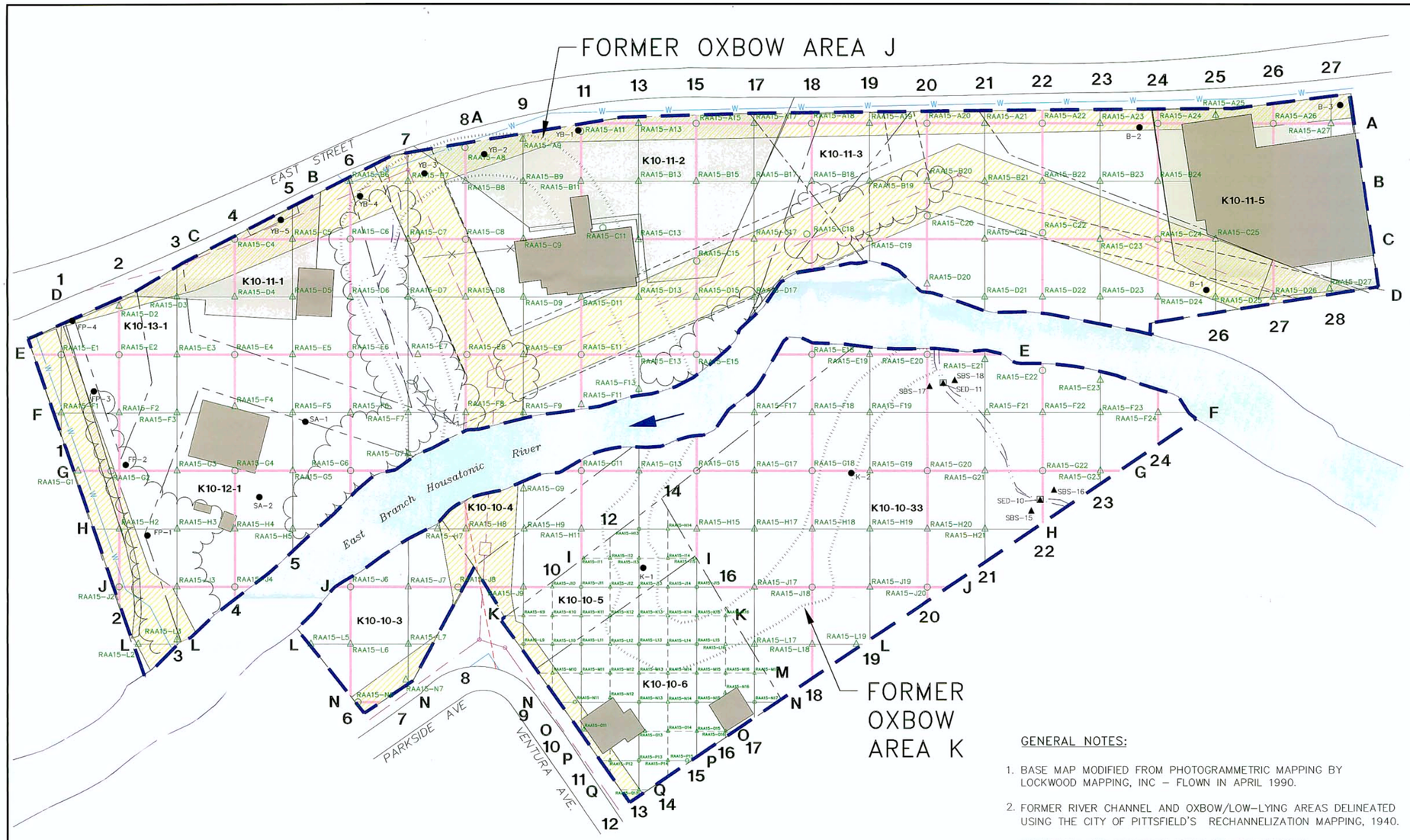
GENERAL ELECTRIC COMPANY
PITTSFIELD MASSACHUSETTS

FORMER OXBOW AREAS J AND K

EXISTING SOIL SAMPLE LOCATIONS

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3



LEGEND

- APPROXIMATE REMOVAL ACTION AREA BOUNDARY
- PROPERTY LINE
- WESTERN MASS. ELECTRIC CO. EASEMENT
- SEWER EASEMENT
- K10-10-6 PROPERTY ID
- ▲FP-1 EXISTING SURFACE SOIL SAMPLE LOCATION
- ●YB-3 EXISTING SOIL BORING LOCATION (1-FOOT OR GREATER SAMPLE DEPTH)
- ▲SED-10 EXISTING SEDIMENT SAMPLE LOCATION
- △RAA15-G5 PROPOSED SURFACE SOIL SAMPLE LOCATION
- ○RAA15-G6 PROPOSED SOIL BORING LOCATION
- BUILDING
- PAVED AREA
- FORMER OXBOW/LOW-LYING AREA
- APPROXIMATE SEWER LOCATION
- APPROXIMATE STORM DRAIN LOCATION
- W APPROXIMATE WATER MAIN LOCATION
- APPROXIMATE LOCATION OF BAND SURROUNDING SUBSURFACE UTILITIES (25 FEET WIDE ON EACH SIDE OF UTILITY)
- STREAMS WITH INTERMITTENT FLOW

GENERAL NOTES:

1. BASE MAP MODIFIED FROM PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC - FLOWN IN APRIL 1990.
2. FORMER RIVER CHANNEL AND OXBOW/LOW-LYING AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. EASEMENTS AND PROPERTY LINES ARE APPROXIMATE.

SUMMARY OF SOIL PCB SAMPLE RESULTS

(PPM DRY WT.)(SAMPLE INCREMENTS IN FEET)

Location ID	0 - 0.5	2 - 4	4 - 6	6 - 8	8 - 10	10 - 12	12 - 14	14 - 16	16 - 18	18 - 20	20 - 24	24 - 28	28 - 30
FP-1	0-4ft: ND(0.05)		4-8ft: ND(0.05)		8-12ft: ND(0.05)		12-16ft: ND(0.05)		16-20ft: ND(0.05)		ND(0.05)	ND(0.05)	ND(0.05)
FP-2	0-4ft: 13		4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
FP-3	0-4ft: 2.8		4-8ft: 0.38		--	--	--	--	--	--	--	--	--
FP-4	0-4ft: 0.19		4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
SA-1	0-4ft: 0.25		4-8ft: ND(0.05)		8-12ft: 0.05		--	--	--	--	--	--	--
SA-2	0-4ft: 0.2		4-8ft: 0.13		8-12ft: ND(0.05)		--	--	--	--	--	--	--
YB-1	0-4ft: 0.95		4-8ft: 0.43		--	--	--	--	--	--	--	--	--
YB-2	0-4ft: 2.3		4-8ft: 0.8		--	--	--	--	--	--	--	--	--
YB-3	0-4ft: 0.57		4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
YB-4	0-4ft: 0.55		4-8ft: ND(0.05)		--	--	--	--	--	--	--	--	--
YB-5	0-4ft: 1.8		4-8ft: 0.08		--	--	--	--	--	--	--	--	--
K-1	0-2ft: 0.15	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	--	--	--
K-2	0-2ft: 0.07	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	--	--	--	--	--	--	--	--
SBS-15	0.69	--	--	--	--	--	--	--	--	--	--	--	--
SBS-16	0.22	--	--	--	--	--	--	--	--	--	--	--	--
SBS-17	1.2	--	--	--	--	--	--	--	--	--	--	--	--
SBS-18	0.88	--	--	--	--	--	--	--	--	--	--	--	--
B-1	--	ND(0.250)	--	--	--	--	--	--	--	--	--	--	--
B-2	--	2-6ft: 8.58		--	--	--	--	--	--	--	--	--	--
B-3	--	2-6ft: 2.27		--	--	--	--	--	--	--	--	--	--

TABLE NOTES:

1. -- = No sample collected.
2. ND = Not detected.
3. (0.05) = Detection Limit

SUMMARY OF SEDIMENT PCB SAMPLE RESULTS

(PPM DRY WT.)(SAMPLE INCREMENTS IN FEET)

Location ID	0 - 0.5	0.5 - 1	1 - 1.5
SED-10	5.3	6.7	3.5
SED-11	6.4	0.43	ND(0.037)

0 100' 200'

GRAPHIC SCALE

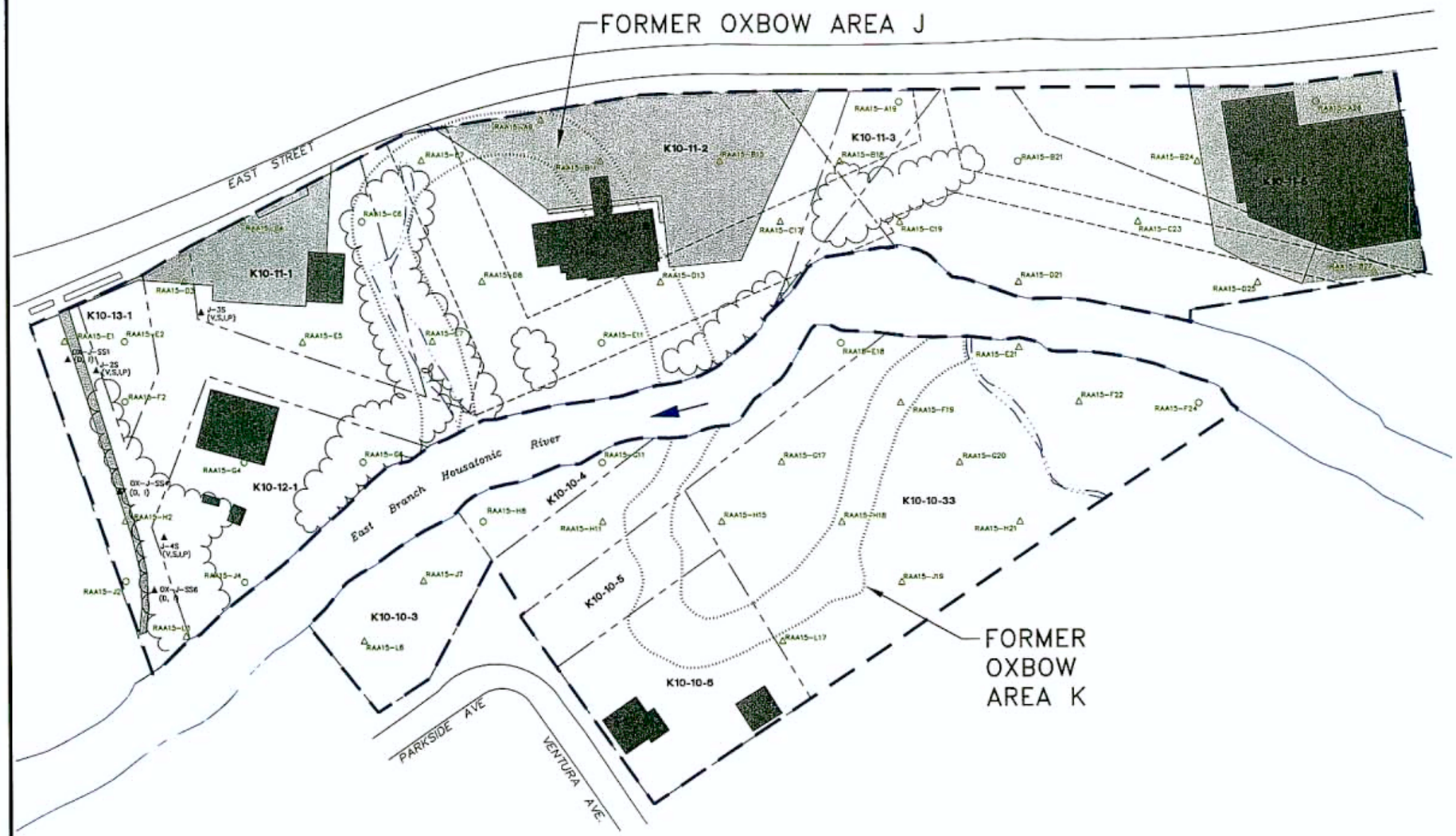
X: 30154X05.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-DL (PLTHALF)
6/26/02 SYR-54-LAS LJP DMW
N:/30154001/30154G07.DWG

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FORMER OXBOW AREAS J AND K

PROPOSED AND EXISTING PCB CHARACTERIZATION LOCATIONS

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 4



GENERAL NOTES:

1. BASE MAP MODIFIED FROM PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC – FLOWN IN APRIL 1990.
2. FORMER RIVER CHANNEL AND OXBOW/LOW-LYING AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. EASEMENTS AND PROPERTY LINES ARE APPROXIMATE.
4. SOIL SAMPLES INCLUDE THE FOLLOWING PARAMETERS (EXCLUDING HERBICIDES AND PESTICIDES) UNLESS OTHERWISE INDICATED IN PARENTHESES.

   V = VOLATILE ORGANIC COMPOUNDS (VOCs)
   S = SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)
   D = POLYCHLORINATED DIBENZO-P-DIOXINS (PCDDs) AND POLYCHLORINATED DIBENZOFURANS (PCDFs)
   I = INORANICS
   P = PESTICIDES AND HERBICIDES

5. PROPOSED APPENDIX IX+3 SAMPLE LOCATIONS ARE NOT SHOWN ON THE TWO RESIDENTIAL PARCELS BECAUSE LOCATION AND DEPTH INCREMENT OF EACH SAMPLE IS BASED ON FIELD ACTIVITES.

X: 30154X05.DWG
L: ON=*, OFF=REF*
P: PAGESET/PLT-BL (PLTHALF)
6/26/02 SYR-54-KMD LJP DMW
N:/30154001/30154C13.DWG

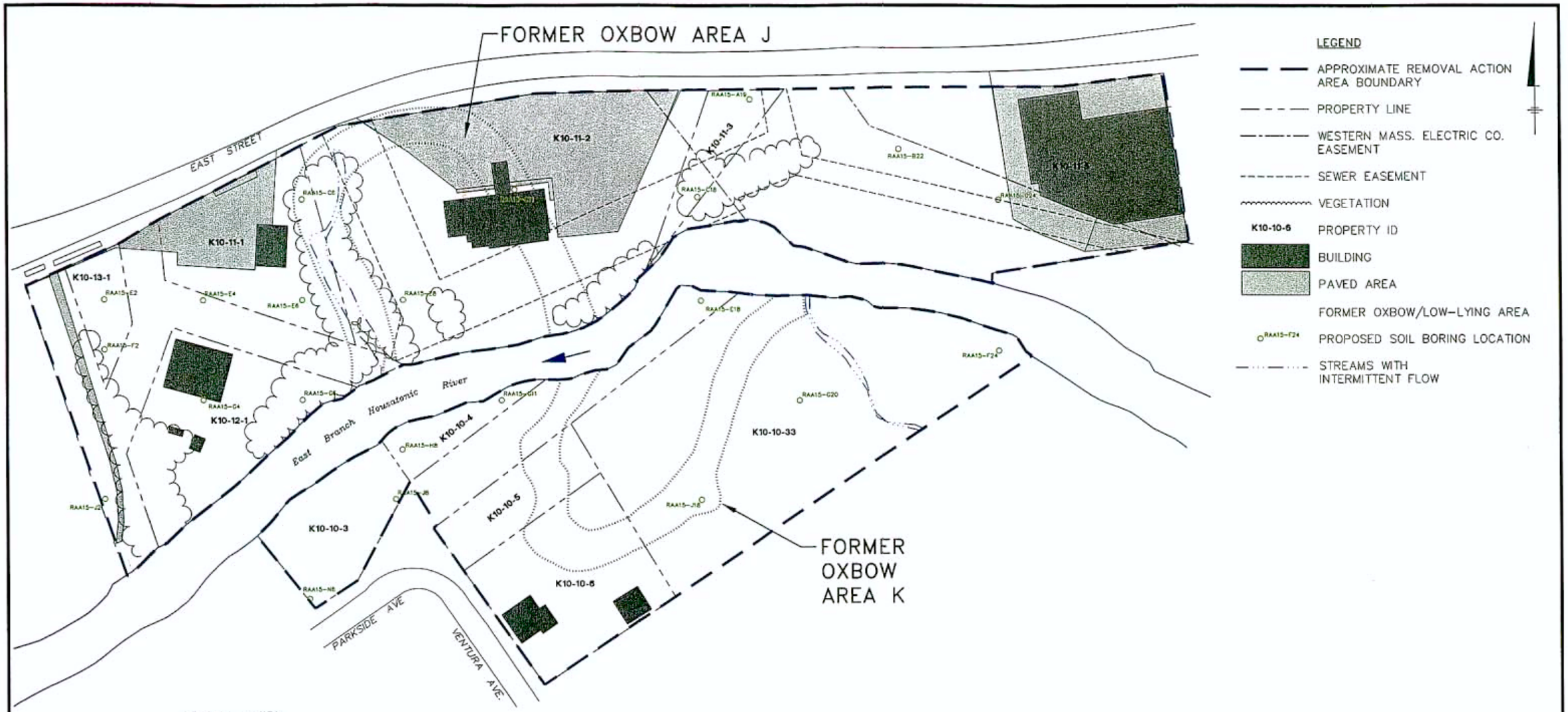
0 100' 200'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FORMER OXBOW AREAS J AND K

EXISTING AND PROPOSED APPENDIX IX + 3 SOIL SAMPLE LOCATIONS (0- TO 1- FOOT INTERVAL)

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 5



GENERAL NOTES:

1. BASE MAP MODIFIED FROM PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC – FLOWN IN APRIL 1990.
2. FORMER RIVER CHANNEL AND OXBOW/LOW-LYING AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. EASEMENTS AND PROPERTY LINES ARE APPROXIMATE.
4. SOIL SAMPLES INCLUDE THE FOLLOWING PARAMETERS (EXCLUDING HERBICIDES AND PESTICIDES) UNLESS OTHERWISE INDICATED IN PARENTHESES.

   V = VOLATILE ORGANIC COMPOUNDS (VOCs)
   S = SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)
   D = POLYCHLORINATED DIBENZO-P-DIOXINS (PCDDs) AND POLYCHLORINATED DIBENZOFURANS (PCDFs)
   I = INORANICS
   P = PESTICIDES AND HERBICIDES

5. PROPOSED APPENDIX IX+3 SAMPLE LOCATIONS ARE NOT SHOWN ON THE TWO RESIDENTIAL PARCELS BECAUSE LOCATION AND DEPTH INCREMENT OF EACH SAMPLE IS BASED ON FIELD ACTIVITES.

X: 30154X05.DWG
L: ON=*, OFF=REF*
P: PAGESET/PLT-BL (PLTHALF)
6/25/02 SYR-34-LAS LAF DMW
N/30154001/30154G14.0WG

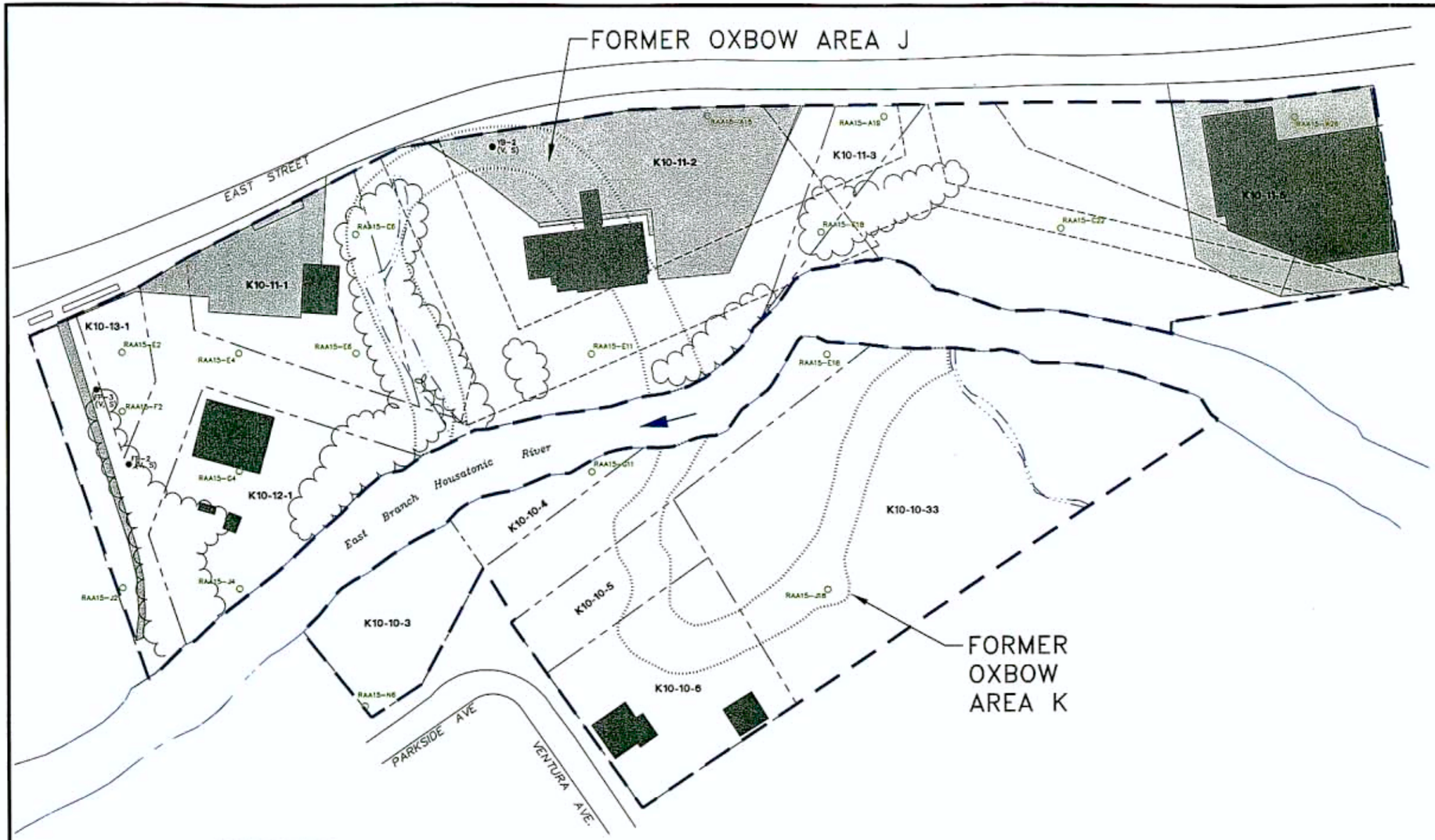
0 100' 200'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FORMER OXBOW AREAS J AND K

EXISTING AND PROPOSED APPENDIX IX + 3 SOIL SAMPLE LOCATIONS (1- TO 3- FOOT INTERVAL)

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 6



GENERAL NOTES:

1. BASE MAP MODIFIED FROM PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC – FLOWN IN APRIL 1990.
2. FORMER RIVER CHANNEL AND OXBOW/LOW-LYING AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. EASEMENTS AND PROPERTY LINES ARE APPROXIMATE.
4. SOIL SAMPLES INCLUDE THE FOLLOWING PARAMETERS (EXCLUDING HERBICIDES AND PESTICIDES) UNLESS OTHERWISE INDICATED IN PARENTHESES.

   V = VOLATILE ORGANIC COMPOUNDS (VOCs)
   S = SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)
   D = POLYCHLORINATED DIBENZO-P-DIOXINS (PCDDs) AND POLYCHLORINATED DIBENZOFURANS (PCDFs)
   I = INORANICS
   P = PESTICIDES AND HERBICIDES

5. PROPOSED APPENDIX IX+3 SAMPLE LOCATIONS ARE NOT SHOWN ON THE TWO RESIDENTIAL PARCELS BECAUSE LOCATION AND DEPTH INCREMENT OF EACH SAMPLE IS BASED ON FIELD ACTIVITES.

0 100' 200'
GRAPHIC SCALE

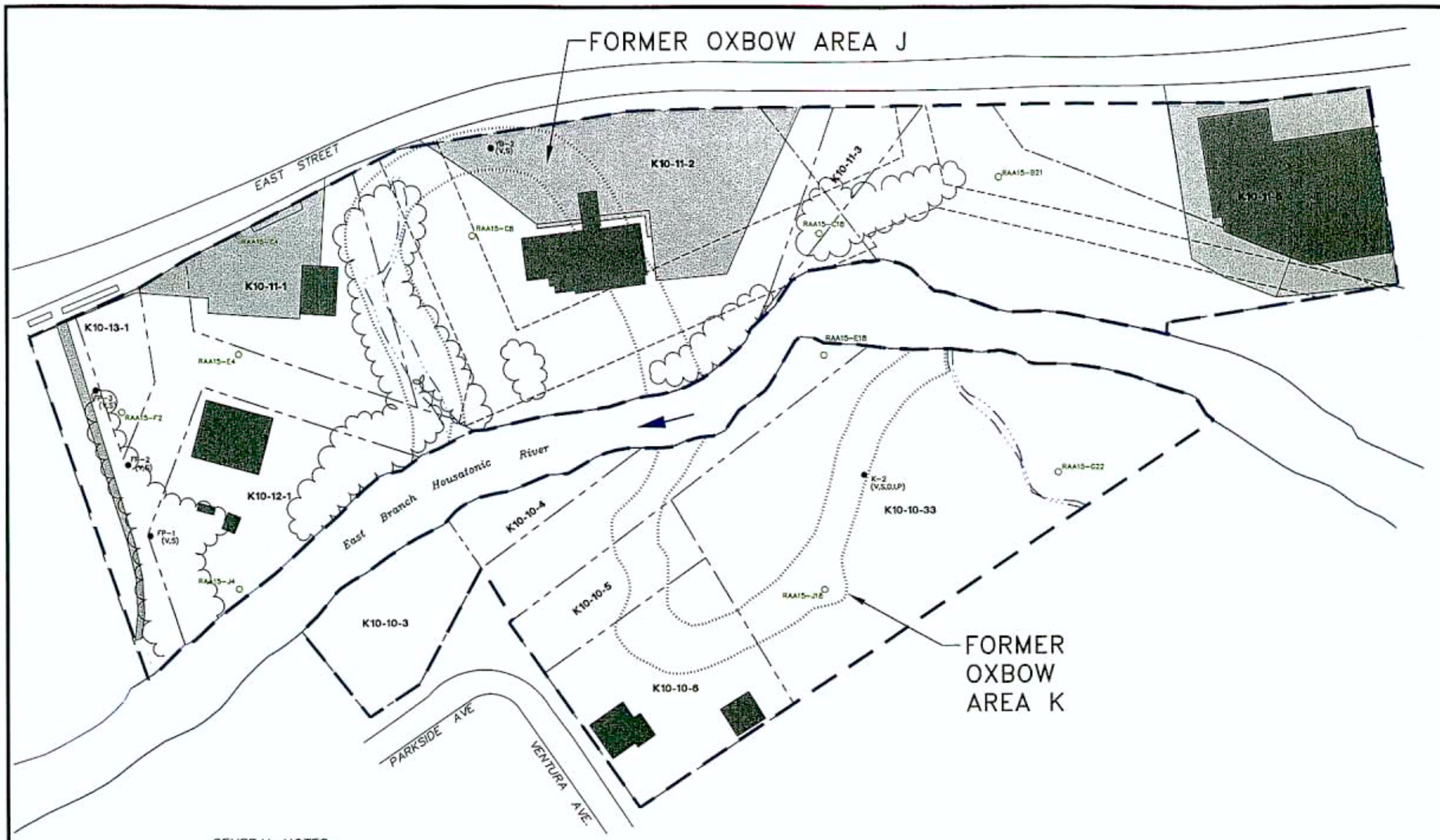
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FORMER OXBOW AREAS J AND K

EXISTING AND PROPOSED APPENDIX IX + 3 SOIL SAMPLE LOCATIONS (3- TO 6- FOOT INTERVAL)

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 7

X: 30154X05.DWG
L: ON=*, OFF=REF*
P: PAGESET/PLT-BL (PLTHALF)
6/26/02 SYR-54-LAS KMD DMW
C/30154001/30154G15.DWG



GENERAL NOTES:

1. BASE MAP MODIFIED FROM PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC – FLOWN IN APRIL 1990.
2. FORMER RIVER CHANNEL AND OXBOW/LOW-LYING AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. EASEMENTS AND PROPERTY LINES ARE APPROXIMATE.
4. SOIL SAMPLES INCLUDE THE FOLLOWING PARAMETERS (EXCLUDING HERBICIDES AND PESTICIDES) UNLESS OTHERWISE INDICATED IN PARENTHESES.

   V = VOLATILE ORGANIC COMPOUNDS (VOCs)
   S = SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)
   D = POLYCHLORINATED DIBENZO-P-DIOXINS (PCDDs) AND POLYCHLORINATED DIBENZOFURANS (PCDFs)
   I = INORANICS
   P = PESTICIDES AND HERBICIDES

5. PROPOSED APPENDIX IX+3 SAMPLE LOCATIONS ARE NOT SHOWN ON THE TWO RESIDENTIAL PARCELS BECAUSE LOCATION AND DEPTH INCREMENT OF EACH SAMPLE IS BASED ON FIELD ACTIVITES.

0 100' 200'
GRAPHIC SCALE

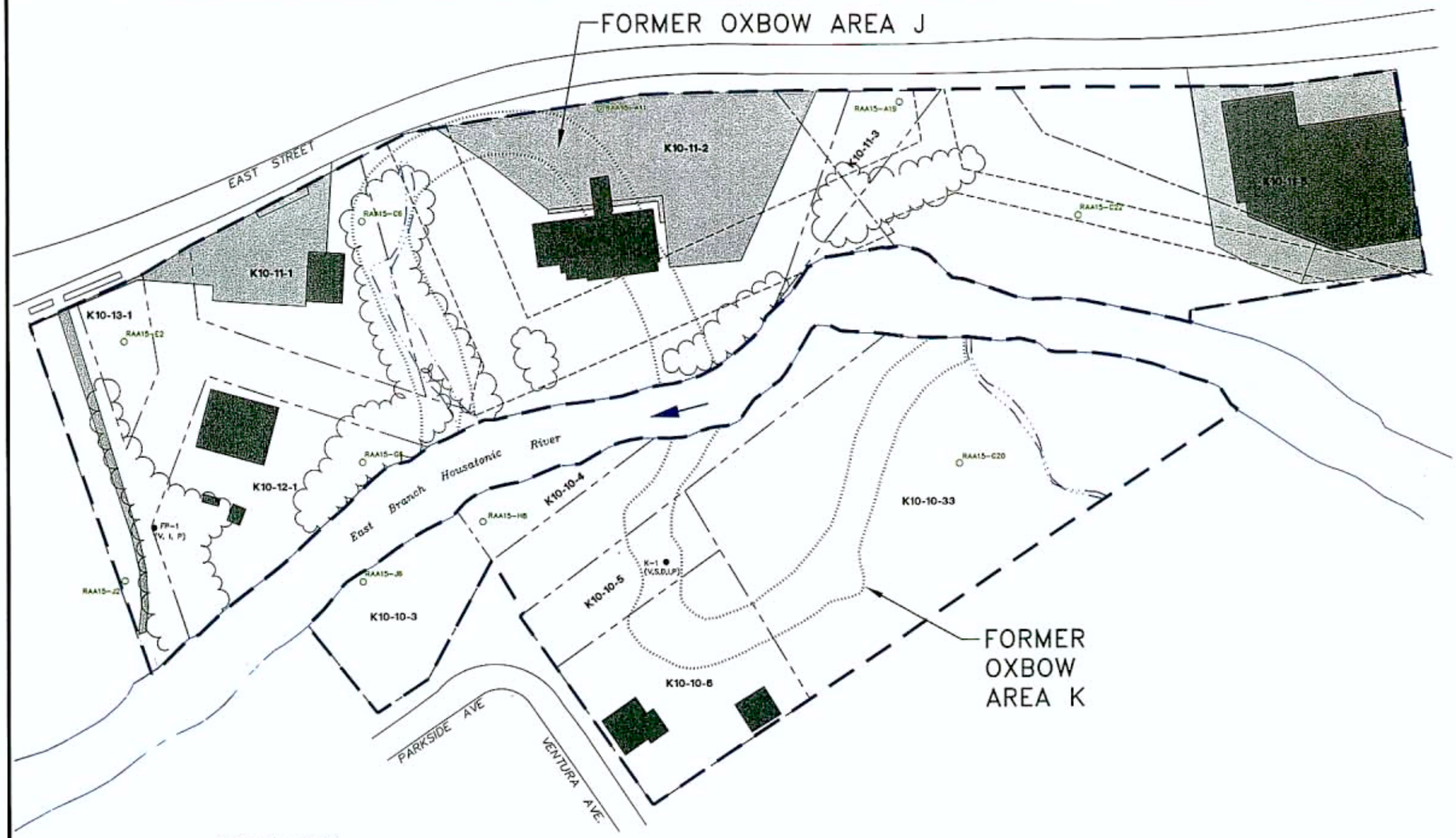
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FORMER OXBOW AREAS J AND K

EXISTING AND PROPOSED APPENDIX IX + 3 SOIL SAMPLE LOCATIONS (6- TO 10- FOOT INTERVAL)

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 8

X: 30154X05.DWG
L: ON=*, OFF=REF*
P: PAGESET/PLT-BL (PLTHALF)
6/26/02 SYR-54-LJP LAF DMW
N/30154001/30154G16.DWG



GENERAL NOTES:

1. BASE MAP MODIFIED FROM PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC – FLOWN IN APRIL 1990.
2. FORMER RIVER CHANNEL AND OXBOW/LOW-LYING AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. EASEMENTS AND PROPERTY LINES ARE APPROXIMATE.
4. SOIL SAMPLES INCLUDE THE FOLLOWING PARAMETERS (EXCLUDING HERBICIDES AND PESTICIDES) UNLESS OTHERWISE INDICATED IN PARENTHESES.

   V = VOLATILE ORGANIC COMPOUNDS (VOCs)
   S = SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)
   D = POLYCHLORINATED DIBENZO-P-DIOXINS (PCDDs) AND POLYCHLORINATED DIBENZOFURANS (PCDFs)
   I = INORANICS
   P = PESTICIDES AND HERBICIDES

5. PROPOSED APPENDIX IX+3 SAMPLE LOCATIONS ARE NOT SHOWN ON THE TWO RESIDENTIAL PARCELS BECAUSE LOCATION AND DEPTH INCREMENT OF EACH SAMPLE IS BASED ON FIELD ACTIVITES.

0 100' 200'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FORMER OXBOW AREAS J AND K

EXISTING AND PROPOSED APPENDIX IX + 3 SOIL SAMPLE LOCATIONS (10- TO 15- FOOT INTERVAL)

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 9

X: 30154X05.DWG
L: ON=*, OFF=REF*
P: PAGESET/PLT-BL (PLTHALF)
6/26/02 SYR-54-LAS KMD DMW
N/30154001/30154G17.DWG

Appendix

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engineers & scientists

Appendix A

Compilation of Prior Soil Sampling Data

BBL®
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engineers & scientists

TABLE A-1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF PCB DETECTIONS IN SOIL/SEDIMENT

Location	Sample ID	Depth (feet)	Sample Date	Total PCB Concentration (ppm)
Oxbow J				
FP-1	FP-1 , 0-4	0-4	10/5/89	ND (0.05)
FP-1	FP-1 , 4-8	4-8	10/5/89	ND (0.05)
FP-1	FP-1 , 8-12	8-12	10/5/89	ND (0.05)
FP-1	FP-1 , 12-16	12-16	10/5/89	ND (0.05)
FP-1	FP-1 , 16-20	16-20	10/5/89	ND (0.05)
FP-1	FP-1 , 20-24	20-24	10/5/89	ND (0.05)
FP-1	FP-1 , 24-28	24-28	10/5/89	ND (0.05)
FP-1	FP-1 , 28-30	28-30	10/5/89	ND (0.05)
FP-2	FP-2 , 0-4	0-4	10/5/89	13
FP-2	FP-2 , 4-8	4-8	10/5/89	ND (0.05)
FP-3	FP-3 , 0-4	0-4	10/5/89	2.8
FP-3	FP-3 , 4-8	4-8	10/5/89	0.38
FP-4	FP-4 , 0-4	0-4	10/5/89	0.19
FP-4	FP-4 - 4-8	4-8	10/5/89	ND (0.05)
SA-1	SA-1 , 0-4	0-4	10/5/89	0.25
SA-1	SA-1 , 4-8	4-8	10/5/89	ND (0.05)
SA-1	SA-1 , 8-12	8-12	10/5/89	0.05
SA-2	SA-2 , 0-4	0-4	10/5/89	0.20
SA-2	SA-2 , 4-8	4-8	10/5/89	0.13
SA-2	SA-2 , 8-12	8-12	10/5/89	ND (0.05)
YB-1	YB-1 , 0-4	0-4	10/6/89	0.95
YB-1	YB-1 , 4-8	4-8	10/6/89	0.43
YB-2	YB-2 , 0-4	0-4	10/6/89	2.3
YB-2	YB-2 , 4-8	4-8	10/6/89	0.80
YB-3	YB-3 , 0-4	0-4	10/6/89	0.57
YB-3	YB-3 , 4-8	4-8	10/6/89	ND (0.05)
YB-4	YB-4 , 0-4	0-4	10/6/89	0.55
YB-4	YB-4 , 4-8	4-8	10/6/89	ND (0.05)
YB-5	YB-5 , 0-4	0-4	10/6/89	1.8
YB-5	YB-5 , 4-8	4-8	10/6/89	0.08
J-2S	ROJ2S	0-0.3	12/10/91	0.53
J-3S	ROJ3S	0-0.3	12/10/91	ND (0.022)
J-4S	ROJ4S	0-0.3	12/10/91	1.9
OX-J-SS1	OX-J-SS1	0-0.3	9/16/94	0.63
OX-J-SS4	OX-J-SS4	0-0.3	9/16/94	1.3
OX-J-SS6	OX-J-SS6	0-0.3	9/16/94	0.28
B-1	B-1 2-4	2-4	7/5/01	ND (0.250)
B-2	B-2 2-6	2-6	7/5/01	8.58
B-3	B-3 2-6	2-6	7/5/01	2.27
Oxbow K				
K-1	ROO1B0002	0-2	1/31/91	0.15
K-1	ROO1B0204	2-4	1/31/91	ND (0.05)
K-1	ROO1B0406	4-6	1/31/91	ND (0.05)
K-1	ROO1B0608	6-8	1/31/91	ND (0.05)
K-1	ROO1B0810	8-10	1/31/91	ND (0.05)
K-1	ROO1B1012	10-12	1/31/91	ND (0.05)
K-1	ROO1B1214	12-14	1/31/91	ND (0.05)
K-1	ROO1B1416	14-16	1/31/91	ND (0.05)
K-1	ROO1B1618	16-18	1/31/91	ND (0.05)
K-1	ROO1B1820	18-20	1/31/91	ND (0.05)

TABLE A-1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF PCB DETECTIONS IN SOIL/SEDIMENT

Location	Sample ID	Depth (feet)	Sample Date	Total PCB Concentration (ppm)
K-2	ROO2B0002	0-2	1/31/91	0.07
K-2	ROO2B0204	2-4	1/31/91	ND (0.05)
K-2	ROO2B0406	4-6	1/31/91	ND (0.05)
K-2	ROO2B0608	6-8	1/31/91	ND (0.05)
K-2	ROO2B0810	8-10	1/31/91	ND (0.05)
SBS-15	K10-10-33-SBS-15	0-0.5	4/28/98	0.69
SBS-16	K10-10-33-SBS-16	0-0.5	4/28/98	0.22
SBS-17	K10-10-33-SBS-17	0-0.5	4/28/98	1.2
SBS-18	K10-10-33-SBS-18	0-0.5	4/28/98	0.88
SED-10	K10-10-33-SED-10	0-0.5	4/28/98	5.3
SED-10	K10-10-33-SED-10	0.5-1	4/28/98	6.7
SED-10	K10-10-33-SED-10	1-1.5	4/28/98	3.5
SED-11	K10-10-33-SED-11	0-0.5	4/28/98	6.4
SED-11	K10-10-33-SED-11	0.5-1	4/28/98	0.43
SED-11	K10-10-33-SED-11	1-1.5	4/28/98	ND (0.037)

NOTES:

1. Concentrations are reported in dry weight parts per million (ppm). Only detected analytes are shown.
2. ND - Not detected with detection limit in parentheses.
3. K10-10-33-SBS and -SED series data obtained from: *Supplemental Investigation Summary Report for* Goodrich *Brook (Parcel K10-10-33)* ; BBL; May 18, 1998.
4. B-1, B-2, and B-3 data obtained from: *Environmental Site Assessment, 1400 East Street* ; Scalise . Associates, Inc.; July 2001.
5. Remaining data obtained from: *MCP Phase I and Interim Phase II Report for Former Housatonic River Oxbow Areas A, B, C, J and K, Volume I of II;* BBL; February 1996.

TABLE A-2

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF VOC DETECTIONS IN SOIL

	Oxbow J								Oxbow K	
Location:	**FP-1**	**FP-2**	**FP-3**	**YB-2**	**YB-4**	**J-2S**	**J-3S**	**J-4S**	**K-1**	**K-2**
Depth (feet):	8-12	4-8	4-8	4-8	0-4	0-0.3	0-0.3	0-0.3	14-16	8-10
Sample Date:	10/5/89	10/5/89	10/5/89	10/6/89	10/6/89	12/10/91	12/10/91	12/10/91	01/31/91	01/31/91
Parameter										
Methylene Chloride	0.006 B	0.006 B	0.005 BJ	0.003 BJ	0.002 BJ	0.074 B	0.055 B	0.087 B	0.033 B	0.038 B
Acetone	NA	NA	NA	NA	NA	0.039	0.028	0.059	0.022 B	0.032 B
Toluene	0.004 J	0.003 J	0.003 J	0.001 J	ND (0.005)	ND (0.006)	ND (0.005)	ND (0.007)	ND (0.006)	ND (0.006)
1, 1, 1-Trichloroethane	ND (0.005)	ND (0.005)	ND (0.005)	0.004 J	0.005	ND (0.012)	ND (0.005)	ND (0.007)	ND (0.006)	ND (0.006)
1, 1, 2-Trichloro-1, 2, 2, -Trifluoroethene	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.003 J	0.002 J	0.003 J	ND (0.012)	ND (0.012)
Trichloroethene	0.001 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.006)	ND (0.005)	ND (0.007)	ND (0.006)	ND (0.006)

NOTES:

1. Concentrations are reported in dry weight parts per million (ppm). Only detected analytes are shown.
2. ND - Not detected with detection limits in parentheses.
3. NA - Parameter not analyzed.
4. J - Indicates an estimated concentration below the sample quantitation limit.
5. B - Indicates the compound was found in the associated blank, as well as in the sample
6. Data obtained from : *MCP Phase I and Interim Phase II Report for Former Housatonic River, Oxbow Areas A, B, C, J and K, Volume I of II;* BBL; February 1996.

TABLE A-3

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF SVOC DETECTIONS IN SOIL

	Oxbow J								Oxbow K	
Location:	**FP-1**	**FP-2**	**FP-3**	**YB-2**	**YB-4**	**J-2S**	**J-3S**	**J-4S**	**K-1**	**K-2**
Depth (feet):	8 - 12	4 - 8	4 - 8	4 - 8	0 - 4	0-0.3	0-0.3	0-0.3	14-16	8-10
Sample Date:	10/5/89	10/5/89	10/5/89	10/6/89	10/6/89	12/10/91	12/10/91	12/10/91	01/31/91	01/31/91
Parameter										
Acenaphthene	ND (2)	ND (1.9)	1.3 J	ND (2)	ND (2)	0.052 J	0.063 J	ND (1.2)	ND (0.39)	ND (0.4)
Acenaphthylene	ND (2)	ND (1.9)	0.43 J	0.27 J	0.42 J	NA	ND (0.36)	0.25 J	ND (0.39)	ND (0.4)
Anthracene	ND (2)	ND (1.9)	3.6	ND (2)	0.26 J	0.14 J	0.1 J	0.18 J	ND (0.39)	ND (0.4)
Benzo(a)anthracene	ND (2)	0.26 J	8.1	0.30 J	0.65 J	0.57	0.63	1.5	ND (0.39)	0.045 J
Benzo(a)pyrene	ND (2)	0.20 J	5.6	0.37 J	0.93 J	0.45	0.60	1.5	ND (0.39)	0.042 J
Benzo(b)fluoranthene	ND (2)	ND (1.9)	5.0	0.38 J	1.0 J	0.58 X	0.65 X	3.2 X	ND (0.39)	0.086 JX
Benzo(g,h,i)perylene	ND (2)	ND (1.9)	3.5	ND (2)	0.77 J	0.28 J	0.35 J	ND (1.2)	ND (0.39)	ND (0.4)
Benzo(k)fluoranthene	ND (2)	ND (1.9)	4.2	0.46 J	0.91 J	0.58 X	0.65 X	3.2 X	ND (0.39)	0.086 JX
bis(2-Ethylhexyl)phthalate	ND (2)	ND (1.9)	ND (2)	ND (2)	ND (2)	ND (0.38)	0.053 J	0.42 J	ND (0.39)	0.067 J
Chrysene	ND (2)	0.23 J	5.8	0.31 J	0.64 J	0.7	0.64	2.2	ND (0.39)	0.059 J
Dibenzo(a,h)anthracene	ND (2)	ND (1.9)	0.73 J	ND (2)	0.24 J	0.097 J	0.088 J	ND (1.2)	ND (0.39)	ND (0.4)
Di-n-butylphthalate	ND (2)	ND (1.9)	ND (2)	ND (2)	ND (2)	ND (0.38)	ND (0.36)	0.15 J	ND (0.39)	0.053 J
Fluoranthene	0.35 J	0.55 J	15	0.47 J	0.89 J	1	1.2	2.8	ND (0.39)	0.080 J
Fluorene	ND (2)	ND (1.9)	1.5 J	ND (2)	ND (2)	0.058 J	0.049 J	0.14 J	ND (0.39)	ND (0.4)
Ideno(1,2,3-cd)pyrene	ND (2)	ND (1.9)	3.0	ND (2)	0.66 J	0.32 J	0.29 J	ND (1.2)	ND (0.39)	ND (0.4)
Naphthalene	ND (2)	ND (1.9)	1.2 J	ND (2)	ND (2)	NA	ND (0.36)	0.15 J	ND (0.39)	ND (0.4)
N-nitrosodiphenylamine	ND (2)	ND (1.9)	0.25 J	ND (2)	0.63 J	ND (0.38)	ND (0.36)	ND (1.2)	ND (0.39)	ND (0.4)
Phenanthrene	0.48 J	0.48 J	17	0.29 J	0.43 J	0.77	0.63	1.7	ND (0.39)	0.053 J
Pyrene	0.27 J	0.42 J	13	0.70 J	0.94 J	0.81	1.0	2.4	ND (0.39)	0.097 J
Total Phenols	NA	NA	NA	NA	NA	ND (0.12)	ND (0.11)	0.29	ND (0.12)	ND (0.12)

NOTES:

1. Concentrations are reported in dry weight parts per million (ppm). Only detected analytes are shown.
2. ND - Not detected with detection limits in parentheses.
3. NA - Parameter not analyzed.
4. J - The analyte was detected and is considered an estimated value.
5. X - Indicates coeluting indistinguishable isomers.
6. Data obtained from: *MCP Phase I and Interim Phase II Report for Former Housatonic River Oxbow Areas A, B, C, J and K, Volume I of II;* BBL; February 1996.

TABLE A-4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF PCDDs and PCDFs DETECTIONS IN SUBSURFACE SOIL

(Results are presented in parts per million, ppm)

Location: / Depth (feet): / Sample Date: / Parameter	J-2S 0-0.3 12/10/91	J-4S 0-0.3 12/10/91	OX-J-SS1 0-0.3 09/16/94	OX-J-SS4 0-0.3 09/16/94	OX-J-SS6 0-0.3 09/16/94	K-1 0-0.3 01/31/91	K-2 0-0.3 01/31/91
Furans							
1,2,7,8-TCDF	NA	NA	0.0000026	0.000019	0.0000083	NA	NA
2,3,7,8-TCDF	ND(0.000018) X	0.00023	0.0000068	0.000035	0.000013	ND(0.00024)	ND(0.000032)
TCDFs (total)	ND(0.000018) X	0.017	ND(0.000059) X	ND(0.00032) X	ND(0.00011) X	ND(0.000040)	ND(0.000067)
1,2,3,7,8-PeCDF	NA	NA	0.0000023 J	0.000018	0.0000035	NA	NA
2,3,4,7,8-PeCDF	NA	NA	0.0000098	0.000039	0.0000069	NA	NA
PeCDFs (total)	0.00015	0.057	ND(0.00013) X	ND(0.00045) X	ND(0.000094) X	ND(0.000049)	ND(0.000043)
1,2,3,4,7,8-HxCDF	NA	NA	0.0000046	0.000036	0.0000048	NA	NA
1,2,3,6,7,8-HxCDF	NA	NA	0.0000066	ND(0.000032) X	ND(0.0000065) X	NA	NA
1,2,3,7,8,9-HxCDF	NA	NA	0.0000011 J	0.0000062	0.0000011 J	NA	NA
2,3,4,6,7,8-HxCDF	NA	NA	0.0000094	0.000031	ND(0.0000077) X	NA	NA
HxCDFs (total)	0.00017	0.023	ND(0.00013) X	ND(0.00050) X	ND(0.000092) X	ND(0.000077)	ND(0.000079)
1,2,3,4,6,7,8-HpCDF	NA	NA	ND(0.000026) X	ND(0.00015) X	ND(0.000022) X	NA	NA
1,2,3,4,7,8,9-HpCDF	NA	NA	0.0000021 J	0.000013	0.0000019 J	NA	NA
HpCDFs (total)	ND(0.000068) X	0.0026	ND(0.000061) X	ND(0.00042) X	ND(0.000046) X	ND(0.00011)	ND(0.00010)
OCDF	0.000045	0.00031	0.000033	0.00029	0.000022	ND(0.00018)	ND(0.00018)
Total Furans	0.00037	0.10	0.000033	0.00029	0.000022	ND(0.00024)	ND(0.00018)
Dioxins							
2,3,7,8-TCDD	ND(0.000019)	ND(0.000028)	ND(0.00000046)	0.00000055	0.00000047	ND(0.000048)	ND(0.000071)
TCDDs (total)	ND(0.000035)	ND(0.000027) X	0.00000082	0.0000099	0.0000038	ND(0.000048)	ND(0.000071)
1,2,3,7,8-PeCDD	NA	NA	ND(0.00000083) I	ND(0.0000030) X	0.00000071	NA	NA
PeCDDs (total)	ND(0.000011)	0.0016	ND(0.0000012) I	0.000011	0.0000019	ND(0.000072)	ND(0.000070)
1,2,3,4,7,8-HxCDD	NA	NA	0.0000011 J	0.0000043	0.00000078 J	NA	NA
1,2,3,6,7,8-HxCDD	NA	NA	0.0000029	0.000023	0.0000022 J	NA	NA
1,2,3,7,8,9-HxCDD	NA	NA	0.0000019 J	0.0000068	0.0000014 J	NA	NA
HxCDDs (total)	ND(0.000014)	0.0085	0.000024	0.00013	0.000020	ND(0.00011)	ND(0.00011)
1,2,3,4,6,7,8-HpCDD	NA	NA	0.000050	0.00068	0.000037	NA	NA
HpCDDs (total)	0.000061	0.0067	0.00010	0.0021	0.00010	ND(0.00012)	ND(0.00013)
OCDD	0.00021	0.0020	0.00039	0.0065	0.00027	ND(0.00024)	ND(0.00022)
Total Dioxins	0.00027	0.019	0.00051	0.0088	0.00040	ND(0.00024)	ND(0.00022)
WHO TEF	NC	NC	0.0000098	0.000047	0.0000084	NC	NC

TABLE A-4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF PCDDs and PCDFs DETECTIONS IN SUBSURFACE SOIL

(Results are presented in parts per million, ppm)

NOTES:

1. NA - Not Analyzed - Laboratory did not report results for this analyte.
2. NC - Not Calculated
3. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
4. Total dioxins/furans determined as the sum of the total homolog concentrations; non-detect values considered as zero.
5. Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and published by Van den Berg et al. In Environmental Health Perspectives 106(2), December 1998.
6. J series samples analyzed by ChemWest Analytical Laboratories, Inc.
7. OX series samples analyzed by Alta Analytical Laboratory, Inc., El Dorado Hills, CA.
8. Data obtained from: MCP Phase I and Interim Phase II Report for Former Housatonic River, Oxbow Areas A, B, C, J and K, Volume I of II, February 1996.
9. Data Qualifiers:
   J - The compound or analyte was positively identified, but the associated numerical value is an estimated concentration.
   X - Estimated maximum possible concentration.
   I - Indicates the presence of chemical interferences.

TABLE A-5

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF INORGANIC DETECTIONS IN SOIL

	Oxbow J						Oxbow K	
Location:	**J-2S**	**J-3S**	**J-4S**	**OX-J-SS1**	**OX-J-SS4**	**OX-J-SS6**	**K-1**	**K-2**
Depth (feet):	0 - 0.3	0 - 0.3	0 - 0.3	0 - 0.3	0 - 0.3	0 - 0.3	14 - 16	8 - 10
Sample Date:	12/10/91	12/10/91	12/10/91	09/16/94	09/16/94	09/16/94	01/31/91	01/31/91
Parameter								
Aluminum	5,670*	5,500	10,100*	NA	NA	NA	4,200	2,900
Antimony	10.5 JN	ND (7.7)	11.1 JN	NA	NA	NA	ND (1.2)	ND (1.2)
Arsenic	21.9 A	5.5 A	9.5	NA	NA	NA	2	ND (1.2)
Barium	41.5 J	28.0 J	66.8	NA	NA	NA	ND (24)	ND (24)
Beryllium	ND (0.24)	ND (0.21)	0.30 J	NA	NA	NA	ND 0.59)	ND (0.6)
Calcium	9,570 E	8,240 E	18,100 E	NA	NA	NA	17,000	ND (600)
Chromium	41	7.7	17.8	NA	NA	NA	3.2	4.2
Cobalt	9.4 J	5.6 J	14.8 J	NA	NA	NA	ND (5.9)	ND (6.0)
Copper	95.6 N	12.0 N	58.8 N	NA	NA	NA	11	ND (3.0)
Iron	68,700*	14,400*	44,200*	NA	NA	NA	12,000	7,400
Lead	121*	13.5*	195*	NA	NA	NA	ND (12)	ND (12)
Magnesium	7,150	4,590	11,500	NA	NA	NA	9,800	1,300
Manganese	854 N*	214 N*	987 N*	NA	NA	NA	300	56
Mercury	0.60	ND (0.11)	0.21	NA	NA	NA	ND (0.12)	ND (0.12)
Nickel	43.8	9.9	27.9	NA	NA	NA	9.3	ND (4.8)
Potassium	393 J	969 J	1,120 J	NA	NA	NA	ND (590)	ND (600)
Sodium	120 J	166 J	174 J	NA	NA	NA	ND (590)	ND (600)
Vanadium	14.1	11.6	27.3	NA	NA	NA	5.9	ND (6.0)
Zinc	164	33	266	NA	NA	NA	38	19
Sulfide	65	ND (11)	ND (14.9)	NA	NA	NA	NA	NA
Cyanide	120	ND (0.55)	ND (0.75)	ND (0.6)	ND (0.63)	ND (0.56)	ND (0.59)	ND (0.6)
TOC	NA	NA	NA	30,900	32,300	11,600 [133,300]	NA	NA

TABLE A-5

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF INORGANIC DETECTIONS IN SOIL

NOTES:

1. Concentrations are reported in dry weight parts per million (ppm). Only detected analytes are shown.
2. ND - Not detected with detection limits in parentheses.
3. NA - Parameter not analyzed.
4. J - Indicates the reported value is less than the contract required detection limit (CRDL), but greater than the instrument detection limit (IDL).
5. E - The reported value is estimated because of a reported interference.
6. * - Indicates a non-homogeneous sample matrix in regard to the flagged analyte.
7. N - Indicates the sample matrix spike analysis was outside control limits.
8. A - Indicates spike recoveries are outside the range of 85% to 115%. Reported results are produced from a single-point method-of-standard-addition calculation.
9. Data obtained from: *MCP Phase I and Interim Phase II Report for Former Housatonic River Oxbow Areas A, B, C, J and K, Volume I of II;* BBL; February 1996.

TABLE A-6

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR
FORMER OXBOW AREAS J AND K REMOVAL ACTION

SUMMARY OF PESTICIDE AND HERBICIDE DETECTIONS IN SOIL

Location: / Depth (feet): / Sample Date: / Parameter	J-2S 0 - 0.3 12/10/91	J-3S 0 - 0.3 12/10/91	J-4S 0 - 0.3 12/10/91	K-1 14 - 16 1/31/91	K-2 8 - 10 1/31/91
Organochloride Pesticides:					
4, 4'-DDT	ND (0.021)	0.0069	ND (0.0052)	ND (0.0041)	ND (0.0041)
Organophosphorus Pesticides:					
None Detected	--	--	--	--	--
Herbicides:					
2, 4-D	ND (0.120)	ND (0.11)	ND (0.15)	0.22	ND (0.120)
2, 4, 5-TP (silvex)	ND (0.029)	ND (0.027)	ND (0.037)	0.051	ND (0.03)
2, 4, 5-T	ND (0.029)	ND (0.027)	ND (0.037)	0.052	ND (0.03)

NOTES:

1. Concentrations are reported in dry weight parts per million (ppm). Only detected analytes are shown.
2. ND - Not detected with detection limits in parentheses.
3. -- Indicates that all analytes for a parameter group (e.g., Organophosphorus Pesticides) are not detected.
4. Data obtained from: *MCP Phase I and Interim Phase II Report for Former Housatonic River Oxbow Areas A, B, C, J and K, Volume I of II;* BBL; February 1996.