UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

August 24, 2000

Mr. Andrew T. Silfer
Corporate Environmental Programs
General Electric Company
100 Woodlawn Ave.
Pittsfield, MA 01201

Re: **Comments on General Electric's April 2000 "Baseline Monitoring Program Proposal for Plant Site 1 Groundwater Management Area", General Electric (GE) Housatonic River Project Site, Pittsfield, Massachusetts.**

Dear Mr. Silfer:

The United States Environmental Protection Agency (EPA) has reviewed the April 2000 submittal prepared by the General Electric Company (GE) titled "Baseline Monitoring Program Proposal for Plant Site 1 Groundwater Management Area" (GMA-1).

The majority of the proposed baseline monitoring plan (see attachment and below for exceptions) presented by GE meets the relevant requirements of the Consent Decree and its accompanying Statement of Work (SOW). It is also consistent with the discussions from prior meetings with GE concerning groundwater monitoring issues.

However, GE is required, as part of the CD and SOW, to conduct an assessment of existing NAPL recovery systems and/or programs, including proposals to optimize NAPL recovery, and to conduct an assessment of additional characterization of known NAPL plumes and other potential NAPL areas.

In GE's April 2000 submittal, GE has proposed minor changes to its NAPL monitoring plans and has started to evaluate potential preferential pathways near buildings, but GE has not, in this document, proposed any significant changes to optimize NAPL recovery systems or addressed investigating other potential sources from a site-wide.

The EPA recognizes that proposals to optimize the NAPL recovery systems and to conduct additional characterization of known/suspected NAPL areas may be presented in the annual and semi-annual NAPL reports that GE submits to EPA and the Massachusetts Department of

Environmental Protection (DEP). Therefore, if GE does not address these issues more fully in the revised baseline monitoring program proposal for GMA 1, it shall include such proposals, where appropriate, along with a proposed implementation schedule, in the periodic NAPL reports. These proposals shall include, an analysis/discussion of all currently identified NAPL plumes, as well as any others which are discovered in the future.

Currently GE submitts the following NAPL reports:

• East Street Area I	Semi-annual NAPL Report
• East Street Area II	Semi-annual NAPL Report
• Lyman Street Area	Annual NAPL Report
• Newell Street Area II	Semi-annual NAPL Report

To simplify the NAPL reporting process, EPA recommends that GE consolidate the various NAPL reports into a single NAPL document, to be submitted semi-annually, covering all of GMA-1. This approach will minimize the number of submittals (and approvals). Also, "economies of scale" will be realized when sampling and wells/borings are conducted concurrently at various NAPL areas (e.g., minimizing mobilization/demobilization costs, leveraging of contracting, etc.).

NAPL reporting in the semi-annual reports shall include all known/suspected LNAPL and DNAPL areas in the GMA (listed above) and the following NAPL areas that have been identified including, but not limited to:

- Lyman Street Area LNAPL and DNAPL
- Newell Street Area II DNAPL and LNAPL
- East Street Area I LNAPL
- East Street Area II LNAPL - Building 12 and 3C Vault oil plume
- East Street Area II LNAPL - Building 64/66 area oil plume
- East Street Area II DNAPL - Deep coal tar at glacial till surface
- East Street Area II DNAPL - Shallow coal tar associated with Cell C sediment
- East Street Area II DNAPL - Associated with NPDES outfall 005 and Cell G1
- Building 68 DNAPL

One of the semi-annual NAPL reports should report primarily data and the other recommendations for system changes, if appropriate.

In addition to the aforementioned general issue, Attachment I presents other EPA comments on GE's proposed baseline monitoring program for GMA 1. Some of those comments relate specifically to GE's baseline monitoring program proposal, while others relate to subsequent assessments or activities that GE shall conduct during the course of the groundwater or NAPL monitoring. GE shall indicate how it will comply with such assessments and/or activiites in its GMA proposal.

GE shall provide a revised "Baseline Monitoring Program Proposal for Plant Site 1 Groundwater Management Area" by October 1, 2000 for EPA approval. GE's revised GMA-1 proposal shall respond to the aforementioned general issue (at least by referencing proposals for optiminization of NAPL recovery and NAPL characterization in the semi-annual NAPL reports) as well as comments identified in Attachment I. According to the terms of the Consent Decree that was lodged with the Court in October 1999, GE shall implement the Baseline Monitoring Program for the GMA-1 60 days after the Consent Decree is entered by the Court.

In the event the Consent Decree does not get entered by the Court, the EPA reserves the right to require additional investigations and response activities pursuant to its statutory and regulatory authorities, including, but not limited to, the Resource Conservation Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

If you have any questions, please contact Michael Nalipinski at (617) 918-1268.

Sincerely,

M.J. Nalipinski

for/ Bryan Olson
GE Team Leader

cc:

Michael Nalipinski,	EPA
Tim Conway,	EPA
John Kilborn,	EPA
Holly Inglis,	EPA
J. Lyn Cutler,	MA DEP
Dawn Veilleux,	WESTON
Mayor Doyle,	City of Pittsfield
Michael Carroll,	GE - Pittsfield
James Bieke,	Shea & Gardner
PEDA	
Public Site Repositories ✓	

Attachment(s)

Attachment I

Comments on GE's Baseline Monitoring Program GMA 1

General Comments:

1. During the course of the groundwater monitoring program, GE shall evaluate the need for further assessment of the groundwater associated with each of the other potential soil sources which may be identified during the various Removal Action Area soil investigations.

2. GE shall also evaluate the need for additional GW-2 monitoring for potential preferential pathways near occupied buildings.

Specific Comments

1. GE needs to investigate the potential for NAPL in the area of Oxbow F and its associated drainage swale (see attached Figure 1). PCBs were detected at up to 34,000 ppm in surface soil near Oxbow F. Most of the existing soil samples were collected near the surface (maximum depth 6 ft) and there are no existing wells or borings down to the top of till in the area. It has been reported that drums of waste oil were formerly dumped weekly at the Newell Street site (as reported by a GE employee in a 1983 interview). Some of the drums may have been dumped in the Oxbow F area.
2. Page 2-6. According to the GMA-1 proposal, a bedrock production well exists or existed inside Building 31. Provide any available historic groundwater sampling data/well logs from the well inside Building 31. Provide any abandonment information if appropriate. If the well is accessible, obtain a groundwater sample to be analyzed for Appendix IX constituents will be discussed between GE and the Agencies. Deterioration of the former industrial water supply well is a potential preferential pathway that should be addressed, particularly if the well was improperly abandoned. GE should provide well construction and well abandonment information for this well if it has been abandoned.
3. Page 2-10. The EPA has received under separate cover GE's evaluation of the pumping tests performed on wells 34 and 72. Given that wells 34 and 72 are formation packed wells, the minimal yield supplied during pumping of these wells suggest that well construction may be a limiting factor to recovery of LNAPL at these locations. Therefore, in its next semi-annual NAPL report, GE shall re-evaluate LNAPL/groundwater recovery at this location and use a more suitably constructed well to determine possible LNAPL recovery rates at this location.
4. Section 4.2.2 and Figures 2 and 3. According to the MCP, the average annual depth to groundwater needs to be used for determining areas where GW-2 standards are applicable. GE has presented the average high and low groundwater elevations in the GMA-1 proposal. GE needs to use the overall average or explain how it is using the high and low groundwater levels to determine areas where GW-2 standards are applicable.

This issue was discussed during the May 24th meeting, but it should be included in the final GMA-1 proposal.

5. Page 4-5, 2nd bullet. The Agencies agree to eliminate well RF-4 as a GW-2 sentinel well. However, monitoring well RF-4 should be added as a GW-2 sentinel well if further evaluation of groundwater levels indicates that the average water level in this well is within 15 feet of the ground surface.

6. Page 4-8, 3rd paragraph. Monitoring wells RF-3 and Prop-18 do not represent a well cluster. The text should be changed to RF-3/Prop-17.

7. Section 4.2.7. The use of passive-diffusion bag samplers is reasonable in principle, but the details on how they will be used and how the sampling data will be qualified need to be presented prior to any decision to proceed. The sampling procedures need to be included in GE's revised FSP/QAPP and presented to the Agencies for approval. Assuming approval is given by the EPA for the use of passive-diffusion sampling, GE should explain how these data will be compared to historical VOC analyses such that trends in groundwater VOC data may be established.

8. Page 4-11. As part of its semi-annual NAPL monitoring, GE shall ensure that monitoring wells 13, 14, and 15R proposed for removal/recovery testing at the LNAPL area south of Building 64 and 66 are suitable for LNAPL recovery. Table 3 indicates that sediment is present in wells 13 and 14 and, therefore, these wells may need to be redeveloped to ensure recovery of LNAPL. Additional wells may be needed at this location pending the results of the recovery tests for wells 13, 14, and 15R.

9. Page 5-1, 3rd paragraph. Replacement wells associated with the Merrill Road reconstruction project may be required prior to completion of the road construction activities to avoid potential delays in the schedule for the baseline monitoring program. GE should coordinate installation of new wells with the Massachusetts Highway Department to attempt to avoid potential delays in implementing and completing the baseline monitoring activities.

10. Page 5-4. GE should propose, for EPA approval, the time required to receive and validate analytical data considering that completion of these items will be used to determine completion of the baseline monitoring program for GMA-1. GE shall provide the analytical data in an electronic format which is compatible with the EPA computer systems.

11. Figure 4. GE needs to identify on a revised figure areas where NAPL is located at average depths of 15 feet or less from the ground surface and potentially within 30 feet of occupied buildings. Where NAPL is identified in GW-2 monitoring wells in such areas, GE shall demonstrate, in accordance with the NAPL performance standards in the SOW, that the constituents present in NAPL do not pose an unacceptable risk to building occupants.

12. Figure 5 and Table 5. GE shall propose a schedule for installation of replacement well 31R, which is proposed for LNAPL monitoring at East Street Area I – South. Well 31R is being proposed to replace wells 31 and 32 which were reportedly abandoned during

Merrill Road reconstruction. Given that there are no other wells downgradient from the northside caisson, replacement well 31R is needed in the short term to ensure control of the NAPL at the upgradient caisson.

13. Figure 5. A downgradient monitoring well is needed south of the south side caisson (East Street Area I - South) to monitor for the presence of LNAPL and to ensure the control of the upgradient LNAPL.

14. Figures. GE should provide a map of GMA-1 showing where they have determined that the average depth to groundwater is 15 feet or less for GW-2 monitoring purposes. Care must be taken when installing the new baseline monitoring wells to ensure, to the extent practicable based on an appropriate field assessment (taking into account the time of year and estimated seasonal water fluctuations), that the groundwater elevations at proposed GW-2 monitoring locations are less than 15 feet, on average. If the average depth to water at any of the proposed GW-2 monitoring well locations exceeds 15 feet, GE shall propose a replacement GW-2 monitoring well location in the same general area, to the extent that the average depth to groundwater is less than 15 feet.

15. Figures. To adequately judge areas where GW-2 standards are applicable, GE shall provide a figure in the GMA-1 proposal, showing which facility buildings will be destroyed, which buildings are occupied and which buildings may be occupied in the future. In the future, when additional buildings are constructed, GE shall propose additional GW-2 monitoring wells near such buildings to the extent that the average depth to groundwater in such areas is 15 feet or less.

16. Table 3. GE needs to take appropriate actions to repair or redevelop wells proposed for baseline monitoring and identified in Table 3 as requiring repair or containing sediment. If existing wells cannot be suitably repaired or redeveloped, GE shall install replacement wells at these locations for the purposes of the baseline monitoring program.

17. Table 3. Access to well 92 was denied by the owner the last time that GE tried to monitor the well (as stated in GE's well inventory). GE needs to resolve access issues for well 92 proposed for the East Street Area I – South RAA. If access issues cannot be resolved for this sampling location, an alternative monitoring location should be proposed. Additionally, based on the pattern of PCB contamination in the soil and the groundwater flow direction in the Lakewood residential area, GE's proposed GW-3 monitoring well 92 may not be optimally located. GE shall consider installing a new GW-3 monitoring well near the residences at 34 or 42 Lombard Street to replace well 92 (see attached Figure 1).

18. Table 4 and Table 5. Well U is proposed as both a GW-3 source area sentinel well and a NAPL monitoring well. Given the historical presence of NAPL in well U, this well is not suitable for use as a GW-3 source area sentinel well.

19. Table 4 and Figure 10. Two additional GW-3 perimeter wells need to be installed between Oxbow F and the Housatonic River to monitor any groundwater contamination associated with Oxbow F and its associated drainage swale (see attached Figure 1).

20. Table 4 and Figure 10. An additional GW-3 monitoring well needs to be installed

downgradient of the former Thermal Oxidizer Unit to better monitor the existing solvent plume (see Figure 1).

21. Table 4 and Figure 10.After installation of the additional monitoring well described in Specific Comment #13, GE shall propose to the EPA whether that well can serve as a GW-2 monitoring well for the Lakewood residential area between East Street and the Housatonic River. If not, GE shall evaluate the need for an additional GW-2 monitoring well in this area. In such a case, groundwater sampling at one of the existing wells (well numbers 77 or 89) or a new well in the same area should provide adequate coverage (see attached Figure 1).
22. Table 4 and Figure 10. To provide adequate coverage for GW-2 monitoring in the area of Buildings 3, 7, 12, and 100, an additional monitoring location is needed. Existing well A7 is in an appropriate location to monitor this area for GW-2 compliance (see attached Figure 1).
23. Appendix D. In the event of any discrepancy betwen the groundwater standards listed in Appendix D and those published in the MCP, the latter shall supercede.

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Legend

- GMA-1
- Oxbows
- Area of PCB Soil Contamination - Oxbow F
- Baseline Monitoring Wells Proposed By General Electric
- EPA Proposed GMA-1 Baseline Monitoring Well
- Existing GE Well Proposed By EPA For Baseline Monitoring Program
- Existing GE Well

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W E
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Scale in Feet

250 0 250 500 750 1000

Pittsfield/Housatonic River Project
Pittsfield, MA

Figure 1
Groundwater Management Area -1
Baseline Monitoring Wells

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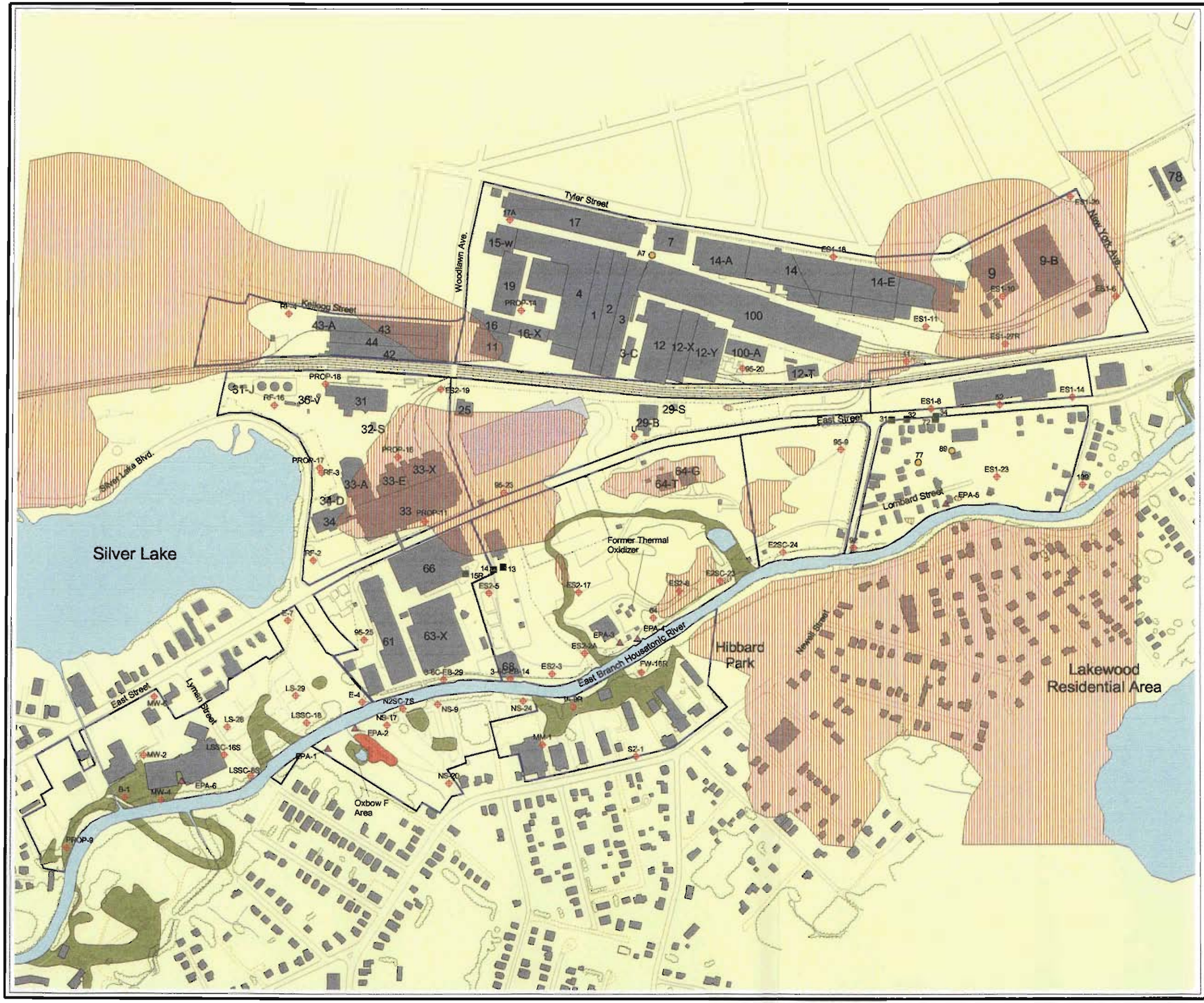

EPA United States Environmental Protection Agency

Legend

- GMA-1
- Oxbows
- Area of PCB Soil Contamination
- Areas where Groundwater <= 15 ft.
- Baseline Monitoring Wells Proposed By General Electric
- EPA Proposed GMA-1 Baseline Monitoring Well
- Existing GE Well Proposed By EPA For Baseline Monitoring Program
- Existing GE Well

N W E S

Notes:
1. Base features provided by BB&L.
2. Not all physical features are shown.
3. Site Boundaries are approximate.
4. Map created by Roy F. Weston, Inc.

Pittsfield/Housatonic River Project
Pittsfield, MA

Figure 2
Groundwater Management Area -1
GW-2 Area - High Water Levels

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EPA

United States Environmental Protection Agency

Legend

- GMA-1
- Oxbows
- Area of PCB Soil Contamination
- Areas where Groundwater <= 15 ft
- Baseline Monitoring Wells Proposed By General Electric
- EPA Proposed GMA-1 Baseline Monitoring Well
- Existing GE Well Proposed By EPA For Baseline Monitoring Program
- Existing GE Well

N
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Scale in Feet

250 0 250 500 750 1000

Notes:
1. Base features provived by BB&I..
2. Not all physical features are shown.
3. Site Boundaries are approximate.
4. Map created by Roy F. Weston, Inc.

Pittsfield/Housatonic River Project
Pittsfield, MA

Figure 3
Groundwater Management Area -1
GW-2 Area - Low Water Levels

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