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Via Electronic Mail

September 16, 2022

Mr. Dean Tagliaferro
EPA Project Coordinator
U.S. Environmental Protection Agency
c/o HDR, Inc.
10 Lyman Street, Suite 2
Pittsfield, MA 01201

**Re: GE-Pittsfield/Housatonic River Site
Rest of River (GECD850)
Water Withdrawal and Uses Plan**

Dear Mr. Tagliaferro:

In accordance with Sections II.B.8 and II.H.22 of the Revised Final RCRA Permit issued by EPA and Section 4.2.1.8 of the Final Revised Rest of River Statement of Work, enclosed is GE's Water Withdrawal and Uses Plan for the Rest of River Remedial Action.

Please let me know if you have any questions about this Plan.

Very truly yours,

Kevin G. Mooney
Senior Project Manager – Environmental Remediation

Enclosure

Cc: (via electronic mail)
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Public Information Repository at David M. Hunt Library in Falls Village, CT
GE Internal Repository



September 2022
GE-Pittsfield/Housatonic River Site



Water Withdrawal and Uses Plan

September 2022
GE-Pittsfield/Housatonic River Site

Water Withdrawal and Uses Plan

Prepared for
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Prepared by
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TABLE OF CONTENTS

1	Introduction	1
1.1	Background.....	1
1.2	Site Description.....	1
1.3	Plan Objectives and Scope	2
1.4	Plan Organization.....	2
2	Pre-Design Activities.....	4
2.1	Identification of River Water Withdrawals.....	4
2.1.1	Review of Available Online Records.....	5
2.1.2	Outreach to MassDEP	5
2.1.3	Outreach to Local Municipalities.....	6
2.1.4	Outreach to Industrial Facilities and Agricultural Operations.....	6
2.1.5	Outreach to Adjacent Private Property Owners/Lessees	6
2.1.6	Visual Observations from Field Pre-Design Investigations	7
2.2	Water Withdrawal and Use Information to Be Collected	7
3	Design Evaluations and Process.....	8
3.1	Data Compilation	8
3.2	Design Assessment of Potential Impacts.....	8
3.3	Measures to Minimize/Mitigate Impacts	8
4	Schedule.....	10
5	References	11

FIGURES

Figure 1-1	Housatonic River Map
Figure 1-2	Housatonic River Map (Subreaches in Reaches 5 and 7)
Figure 2-1	Water Withdrawal and Use Evaluation Flow Chart

ABBREVIATIONS

CD	Consent Decree
CMR	Code of Massachusetts Regulations
EPA	U.S. Environmental Protection Agency
Final Revised OSS	<i>Final Revised Overall Strategy and Schedule for Implementation of the Corrective Measures</i>
Final Revised SOW	<i>Final Revised Rest of River Statement of Work</i>
GE	General Electric Company
MassDEP	Massachusetts Department of Environmental Protection
NLCD	National Land Cover Dataset
PCB	polychlorinated biphenyl
PDI	pre-design investigation
Plan	<i>Water Withdrawal and Uses Plan</i>
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial Design/Remedial Action
ROR	Rest of River
RU	Remediation Unit
SOW	Statement of Work

1 Introduction

1.1 Background

On December 16, 2020, pursuant to the 2000 Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site (EPA and GE 2000), the U.S. Environmental Protection Agency (EPA) issued to the General Electric Company (GE) a final revised modification of GE's Resource Conservation and Recovery Act (RCRA) Corrective Action Permit (Revised Final Permit) for the Housatonic Rest of River (ROR) (EPA 2020). The ROR is defined as that portion of the Housatonic River and its backwaters and floodplain (excluding Actual/Potential Lawns as defined in the CD) located downstream of the confluence of the East and West Branches of the Housatonic River (the Confluence). The Revised Final Permit set forth a Remedial Action selected by EPA to address polychlorinated biphenyls (PCBs) in the ROR.

The Revised Final Permit required GE to develop and submit a Statement of Work (SOW) specifying the deliverables and activities that GE will conduct to design and implement the ROR Remedial Action. In accordance with that requirement, after receipt of EPA's comments on an earlier version, GE submitted a *Final Revised Rest of River Statement of Work* on September 14, 2021 (Final Revised SOW; Anchor QEA et al. 2021), and EPA approved it on September 16, 2021 (EPA 2021).

Section II.B.8 of the Revised Final Permit establishes a Performance Standard requiring GE to minimize/mitigate impacts during implementation of the Remedial Action to withdrawals and/or uses of water from the ROR by any entity. It provides further that the Performance Standard will be achieved by: (1) identifying all industrial, commercial, private, or other withdrawals and/or uses of water from the ROR; (2) identifying requirements associated with those uses (including water quality and quantity) that may be affected by implementation of the Remedial Action; and (3) proposing methods to minimize/mitigate impacts during implementation of the Remedial Action.

Section II.H.22 of the Revised Final Permit requires GE to prepare a Water Withdrawal and Uses Plan that provides details regarding achievement of the applicable Performance Standard and requirements of the Revised Final Permit. Section 4.2.1.8 of the Final Revised SOW provides further information regarding the contents of the Water Withdrawal and Uses Plan. This *Water Withdrawal and Uses Plan* (Plan) constitutes that document.

1.2 Site Description

The ROR area consists of the portion of the Housatonic River and its backwaters and floodplain (excluding portions of certain residential properties) downstream of the Confluence (located approximately two miles downstream from the GE facility in Pittsfield, Massachusetts). The ROR area is shown on Figure 1-1 and identified according to river reach designations established by EPA. In

accordance with the Final Revised Permit, remediation activities are planned in Reaches 5A through 8, which are shown on Figure 1-2.

1.3 Plan Objectives and Scope

The Housatonic River is designated as a Class B water under 314 Code of Massachusetts Regulations (CMR) 4.06(6)(b). In accordance with 314 CMR 4.05(3)(b), Class B waters are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth, and other critical functions, and for primary and secondary contact recreation. Class B waters are suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. Also, these waters have consistently good aesthetic value. Class B waters can also be suitable as a source of public water supply with appropriate treatment when a waterbody is designated as a “Treated Water Supply” under 314 CMR 4.06(1)(d)6. and (6)(b); however, the Housatonic River does not have this designation.

As provided in Section 4.2.1.8 of the Final Revised SOW, this Plan describes proposed activities to identify industrial, commercial, private, or other withdrawals and uses of water from the portions of the Housatonic River that will be subject to remediation activities (i.e., Reaches 5 through 8), as well as to determine requirements associated with these uses (e.g., water quality and quantity) that may be affected by implementation of the Remedial Action.¹ In addition, this Plan includes the following:

- A description of information to be gathered for each identified river water user;
- A description of the evaluation to be performed to assess potential impacts that may occur to the water withdrawals and uses during remedial activities;
- A description of the design process to minimize and mitigate impacts, if any, to identified river water withdrawals and users during implementation of the remedial activities;
- A description of documents to be prepared to summarize the river water withdrawal and usage details and the evaluation and design of any mitigative measures; and
- A schedule for performing the water withdrawal and uses evaluation.

1.4 Plan Organization

The remainder of this Plan is organized into the following three sections:

- Section 2 presents a description of the pre-design activities that will be conducted to identify industrial, commercial, and private river water withdrawals and uses and gather information for each identified river water user.

¹ For this evaluation, river water uses are considered activities in which water is physically withdrawn from the river for residential, agricultural, industrial, or other uses outside the river. This Plan is not intended to evaluate uses of the river for recreational purposes (e.g., boating, swimming, and fishing).

- Section 3 presents a description of the evaluations to be performed to assess potential impacts to identified river water withdrawals and uses during remedial activities, and how the information will be used during the design process to minimize/mitigate those potential impacts.
- Section 4 presents the schedule for performing the water withdrawal and uses evaluation.

2 Pre-Design Activities

This section describes the pre-design activities that will be conducted to identify industrial, commercial, and private river water withdrawals and gather information for each identified river water user.

2.1 Identification of River Water Withdrawals

The first step in the water withdrawal and uses evaluation will be to identify industrial, commercial, and private water withdrawals and uses from the portions of the Housatonic River that will be subject to remediation activities (i.e., Reaches 5 through 8).

River water withdrawals will be identified by implementing the following tasks (each of which is described in subsequent sections):

- Review of available online records;
- Outreach to Massachusetts Department of Environmental Protection (MassDEP);
- Outreach to local municipalities;
- Outreach to industrial facilities and agricultural operations along the river;
- Outreach to private property owners/lessees; and
- Visual observations during the field pre-design investigation (PDI) activities for each Remediation Unit (RU).²

The first five tasks listed above will be conducted initially on a site-wide basis for all portions of Reaches 5 through 8 following EPA approval of this Plan. During that same period, the sixth above-listed task will be performed for Reach 5A. For each RU downstream of Reach 5A, the results of the first five tasks will subsequently be verified and updated, and the sixth task will be performed, concurrently with the PDI for the subject RU so the details are as accurate and up-to-date as possible prior to the design phase. The results of the pre-design activities to identify the river water users that could potentially be affected by remediation in a given RU will be summarized in a water withdrawal and uses evaluation that will be included in the Conceptual Remedial Design/Remedial Action (RD/RA) Work Plan for each respective RU, as discussed further in Section 3.

² As described in Section 3.2 of GE's *Final Revised Overall Strategy and Schedule for Implementation of Corrective Measures* (Final Revised OSS; Anchor QEA 2022), approved by EPA on July 6, 2022, the ROR has been segmented into separate RUs to manage workflow and schedule for the ROR Remedial Action.

The following subsections describe the process that will be followed to identify industrial, commercial, and private river water withdrawals along Reaches 5 through 8. Figure 2-1 presents a flowchart that shows each step in the water withdrawal and use evaluation process.

2.1.1 Review of Available Online Records

An initial step to identify potential river water users will include a review of internet-based records related to public water supplies. This effort will focus on reviewing and verifying the water sources for public water suppliers to Berkshire County communities along Reaches 5A through 8 of the Housatonic River. This task will include, but may not be limited to, a review of online records maintained by the Commonwealth of Massachusetts Bureau of Geographic Information (i.e., MassGIS). Based on preliminary review of available online records, it appears that no public or private entity draws water from the Housatonic River in Massachusetts for potable use. As described in Section 1.3, the Housatonic River is designated as a Class B water and is not designated as a "Treated Water Supply"; thus, water from the river is not identified as a public water supply.

Further review of online records will be conducted concurrently with the PDI for each RU to identify any changes to potable water uses by a public or private entity. If any public or private water suppliers are identified during this pre-design effort, GE will conduct further outreach to the water suppliers to gather additional information and details regarding the withdrawals and uses to obtain the information outlined in Section 2.2.

2.1.2 Outreach to MassDEP

In accordance with 310 CMR 36.00, any person withdrawing an average daily volume of more than 100,000 gallons of water from a surface or groundwater source within Massachusetts must file with the registration program (for uses that began before 1988) or obtain a permit (for new users after 1988), except for some uses that are exempt under 310 CMR 36.05. Withdrawers that typically require registration or a permit include public water suppliers, golf courses, cranberry growers, ski areas, sand and gravel facilities, fish hatcheries, agricultural users, and industrial users.

GE will contact MassDEP to request any available registration and permit documents and information for known uses of water withdrawn from the Housatonic River between the Confluence and Rising Pond Dam. Based on MassDEP permit application requirements, information associated with registered and permitted withdrawals (if any) from registrations, permit applications, or permits is anticipated to include, but will not be limited to, the following information: facility name, address, contact persons, sources and locations of the withdrawals, water withdrawal frequency and volumes, withdrawal use description, and discharge information (if any).

Depending on the details included with any registration and permitting records provided by MassDEP, GE may conduct further outreach to some or all the identified water withdrawal users to gather additional information and details regarding the withdrawals.

2.1.3 Outreach to Local Municipalities

GE will also contact the local municipalities along Reaches 5 through 8 of the Housatonic River to gather information on any known industrial, commercial, or private withdrawals and users of the river water and to confirm that no known public water suppliers draw water directly from the Housatonic River. This outreach will include Berkshire County, the City of Pittsfield, and the Towns of Lenox, Lee, Stockbridge, and Great Barrington. GE representatives will contact (and may meet with, as necessary) these local municipalities to obtain this information.

2.1.4 Outreach to Industrial Facilities and Agricultural Operations

GE will directly contact known industrial facilities and agricultural operations along Reaches 5 through 8 to determine whether they withdraw any water from the river. Identification of industrial and agricultural operations prior to outreach will be accomplished through review of various sources of information such as current tax rolls, property maps, the National Land Cover Dataset (NLCD), aerial photographs, and information gathered previously by EPA as part of its Human Health Risk Assessment. GE will then contact the identified industrial and agricultural operations to determine if they currently withdraw and use water from the river or have future plans to do so.

2.1.5 Outreach to Adjacent Private Property Owners/Lesseees

GE will conduct public outreach efforts to determine whether the owners or lessees of private properties adjacent to the river in Reaches 5 through 8 withdraw and use water from the river. Prior to such outreach, GE will review any relevant information gathered during the other outreach activities described in Sections 2.1.1 through 2.1.4. Identification of the private property owners/lessees to contact will focus on properties in Reaches 5 through 8 that have developed land (e.g., properties with structures, dwellings, gardens, or ponds) with some reasonable chance of river water use. This identification will be accomplished through review of current tax rolls, property maps, aerial photographs, and information gathered previously by EPA as part of its Human Health Risk Assessment. For the identified property owners/lessees, the outreach effort will include, but may not be limited to, distributing a survey via mail or courier to those individuals to help identify potential river water withdrawals. The surveys will request general information regarding river water use, including owner/lessee name, property address, contact information, existing or planned river water withdrawal, and use of any water withdrawal (e.g., irrigation, bathing, washing, drinking). Property owners/lessees will be asked to respond to the survey by sending in a written response by mail using pre-paid envelopes, by electronic mail, or by filling out an online survey using a website link that will be established.

GE will compile a listing to summarize the information gathered from the survey responses to determine whether further outreach is necessary. GE will attempt to contact property owners/lessees through phone calls and/or door-to-door visits for any property owners/lessees who do not respond to the survey request(s). Follow-up phone calls, virtual meetings, or in-person meetings will be requested for any property owners/lessees who affirmatively indicate that they withdraw water from the river, so as to gather additional details related to their water use.

2.1.6 Visual Observations from Field Pre-Design Investigations

To supplement the efforts described in Sections 2.1.1 through 2.1.5, GE will review information and observations gathered during PDI field activities within each RU to determine if there are indications that adjacent property owners/lessees are withdrawing river water (e.g., pipes near or extending into the river, intake structures, or pumps located along the shoreline). Visual observations and other information (such as photographs) gathered as part of the floodplain soil, riverbank (where applicable), and sediment PDI activities will be reviewed to identify the potential water withdrawals, if any.

2.2 Water Withdrawal and Use Information to Be Collected

Once properties with river water withdrawals and uses are identified, detailed information associated with each will be collected to support the data evaluation and assessment of mitigation measures described in Section 3. Information specific to each water withdrawal will be gathered through outreach to the property owners or lessees (i.e., phone calls), in-person meetings, and/or field visits each property, as necessary. GE will attempt to gather the following information for each river water withdrawal, as applicable:

- Property owner or lessee and contact information;
- Property address and parcel identification number;
- Property land use category (e.g., residential, agricultural, industrial, commercial);
- Water source;
- Water intake location along the river;
- Water usage purpose (e.g., industrial, irrigation, bathing, washing, swimming pools, drinking);
- Water withdrawal period, frequency, and estimated quantities;
- Water intake and withdrawal system details (e.g., pipe sizing, materials, suction screens, pumps, related infrastructure);
- Water quality requirements;
- Sketches and/or schematics presenting the water withdrawal layout and details; and
- Photographs of the equipment and infrastructure used for the water withdrawal.

3 Design Evaluations and Process

Once the river water withdrawals and uses have been identified and information regarding uses has been collected, GE will prepare a summary of the known water withdrawals and uses, evaluate potential impacts to the withdrawals, and identify measures to minimize and mitigate those potential impacts during the remedial activities. These tasks are described below.

3.1 Data Compilation

The data and information collected during the pre-design activities described in Sections 2.1.1 through 2.1.5 (as well as Section 2.1.6 for Reach 5A) will be compiled into a water withdrawal and uses database. Maps will be developed to identify and show each known water withdrawal location within the RUs. The resulting database and maps documenting this initial water withdrawal and use information will be provided to EPA. Subsequently, after any updates to this database and maps during later PDI activities, the Conceptual RD/RA Work Plan for each RU will present an inventory of each identified water withdrawal/use that could potentially be affected by remediation in that RU, as described further in Section 3.2.

3.2 Design Assessment of Potential Impacts

During preparation of the Conceptual RD/RA Work Plan for each RU, potential impacts to the identified river water withdrawals and uses within or downstream of that RU that could be affected by remediation in that RU will be evaluated. Potential impacts to the water withdrawals will be dependent on the location, type, size, and use of any river water withdrawals. Each identified water withdrawal will be reviewed on a case-by-case basis to determine the potential impacts. Considerations that will be evaluated during this assessment will include the locations of each intake relative to the footprint where remedial actions will be conducted; the equipment, materials, and layout of the water intake; the type of upstream or nearby remedial action (e.g., removal, backfilling, or capping); the estimated effects of such remedial action on the river water (e.g., due to resuspension of sediments, runoff from banks or floodplain, other impacts on water quality, changes in water quantity, etc.); the need for withdrawal water during the remediation period; and the water quality and quantity requirements associated with the use. The assessment of potential impacts on each identified water withdrawal and use that could be affected will be described in the Conceptual RD/RA Work Plan for each RU.

3.3 Measures to Minimize/Mitigate Impacts

As part of the Final RD/RA Work Plan for each RU, GE will evaluate and identify appropriate measures to minimize and/or mitigate impacts, if any, to the identified river water withdrawals and uses that could be affected by implementation of the remedial activities in the subject RU.

The specific minimization/mitigative measures that will be considered will be evaluated on a case-by-case basis and will depend on the type, size, use, and location of any river water withdrawals, as well as the final remedial activities, schedule, and extents and the estimated impact (if any) of such activities on the water withdrawal and use. Examples of such measures that will be considered, as appropriate, include, but are not limited to, monitoring water quality, identifying an alternative water source, relocating the water intake, constructing a barrier around the water intake, adjusting the water withdrawal frequency, temporarily suspending the water withdrawal, and/or incorporating water treatment (e.g., filtration).

4 Schedule

The initial outreach activities described in Section 2.1 will begin following EPA approval of this Plan and will be conducted for all of Reaches 5 through 8 within approximately six months. This schedule assumes collaboration with and timely responses from the entities and individuals contacted. The database and maps documenting the initial river water withdrawal and use information will be provided to EPA after completion of the data compilation.

Given the amount of time that will elapse between approval of this Plan and the implementation of the remedial actions within the RUs downstream of Reach 5A, the water withdrawal and uses evaluation for each such RU will be verified and updated concurrently with the PDI and remedial design activities for each respective RU so details gathered during the outreach efforts are as accurate and up-to-date as possible.

Based on the information gathered during the initial outreach activities described in Section 2, as updated concurrently with the PDIs for the RUs downstream of Reach 5A, the potential impacts of remediation in each RU on identified water withdrawals and uses will be presented in the Conceptual RD/RA Work Plan for each respective RU. Specific minimization/mitigation measures (if any) that will be implemented for such water withdrawals and uses during the remedial activities will be described in the Final RD/RA Work Plan for each RU. The Conceptual RD/RA Work Plans and Final RD/RA Work Plans will be submitted for EPA review and approval in accordance with the schedule outlined in the Final Revised OSS (Anchor QEA 2022).

5 References

Anchor QEA, AECOM, and Arcadis, 2021. *Final Revised Rest of River Statement of Work*. Prepared for the General Electric Company. September 2021.

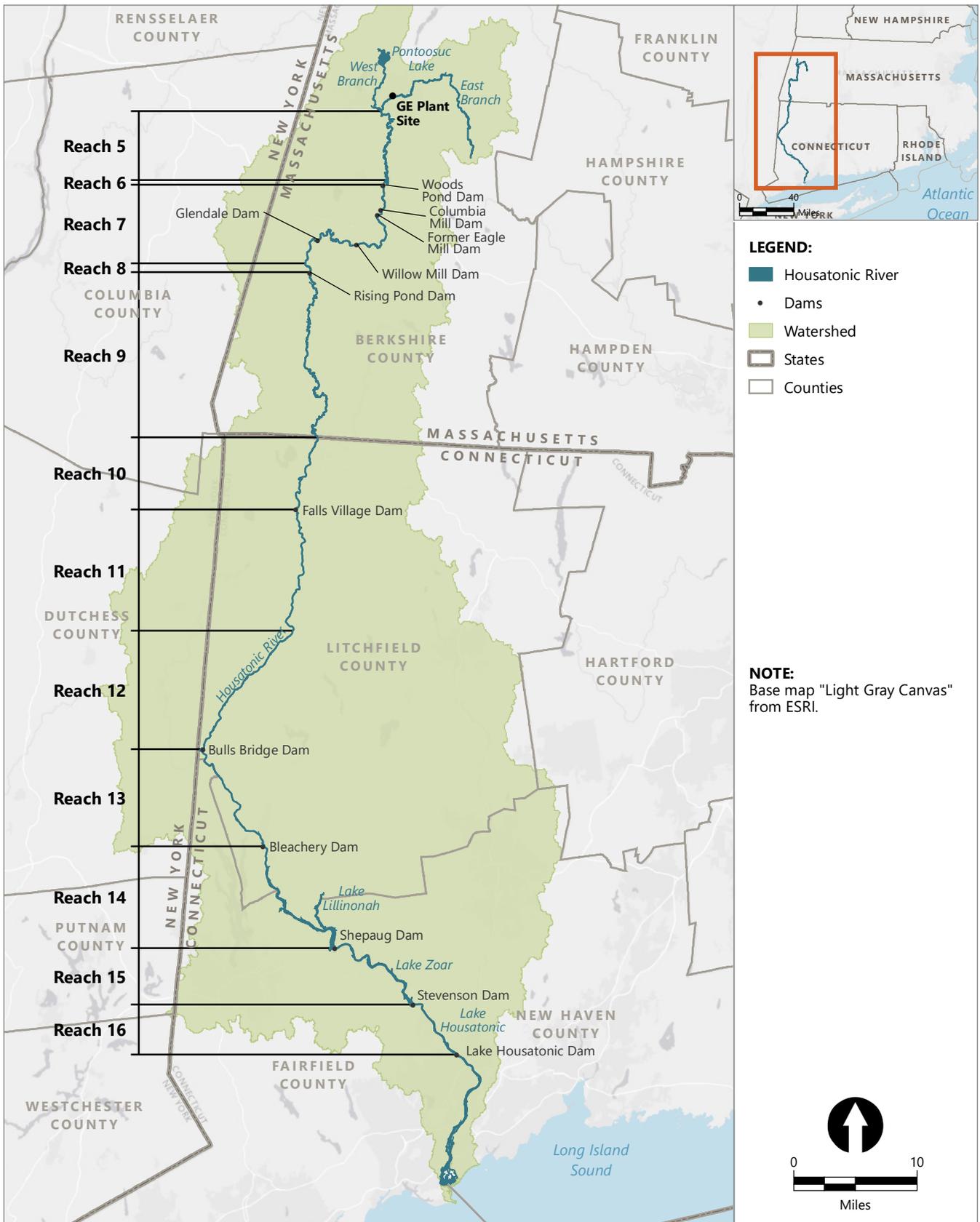
Anchor QEA, 2022. *Final Revised Overall Strategy and Schedule for Implementation of the Corrective Measures*. Prepared for the General Electric Company. July 2022.

EPA (U.S. Environmental Protection Agency), 2020. Revised Final Permit Modification to the 2016 Reissued RCRA Permit and Selection of CERCLA Remedial Action and Operation & Maintenance for Rest of River. December 2020.

EPA, 2021. Letter to: Andrew Silfer, General Electric Company. Regarding: Approval of GE's Final Revised Rest of River Statement of Work, Housatonic Rest of River, GE-Pittsfield/Housatonic River Site. September 16, 2021.

EPA and GE (U.S. Environmental Protection Agency and General Electric Company), 2000. Consent Decree. United States of America, State of Connecticut, and Commonwealth of Massachusetts v. General Electric Company, Civil Action Nos. 99-30225, 99-30226, 99-30227-MAP, entered by the United States District Court for the District of Massachusetts, Western Division. October 27, 2000.

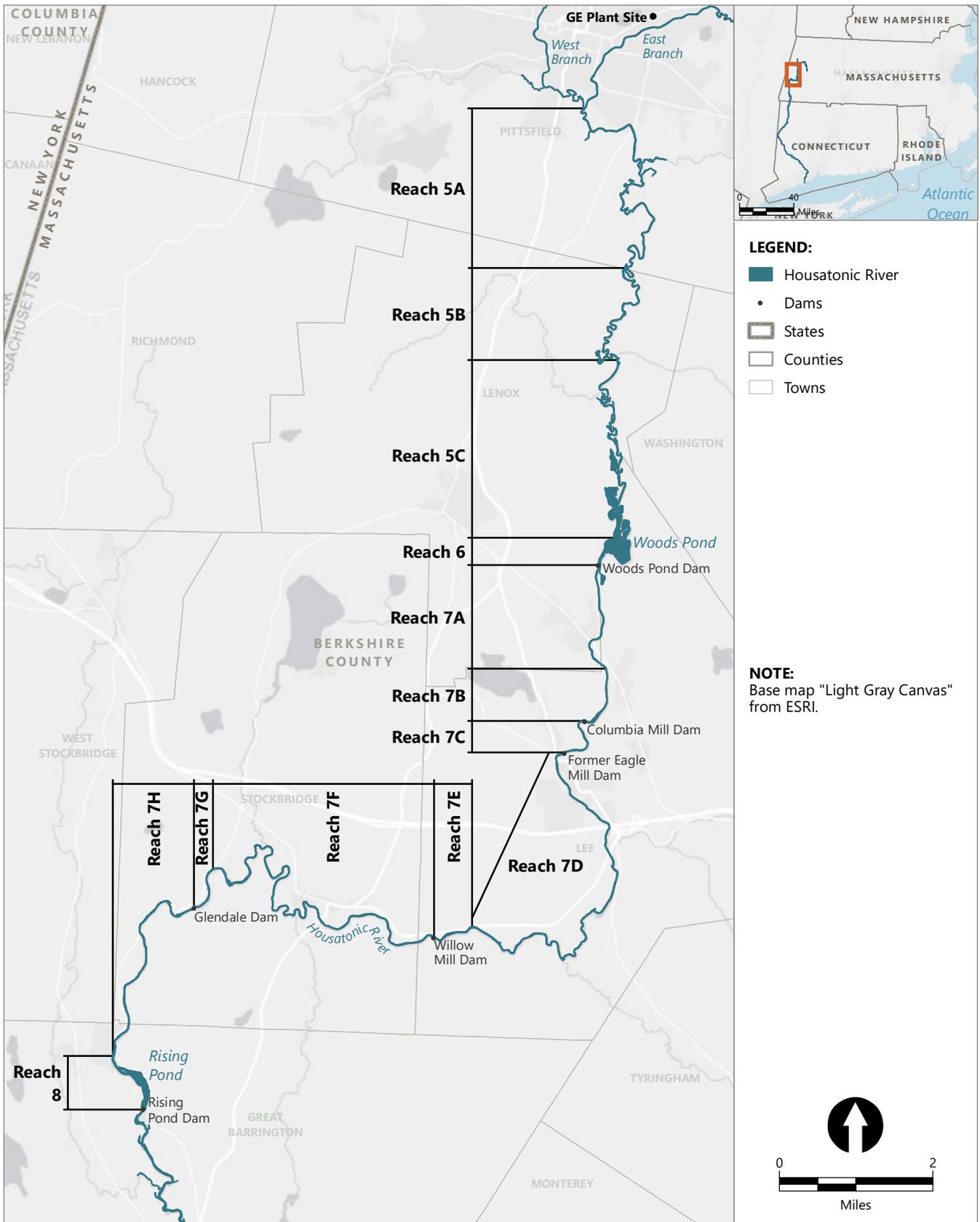
Figures



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Figure 1-1
Housatonic River Map
 Water Withdrawal and Uses Plan
 GE-Pittsfield/Housatonic River Site

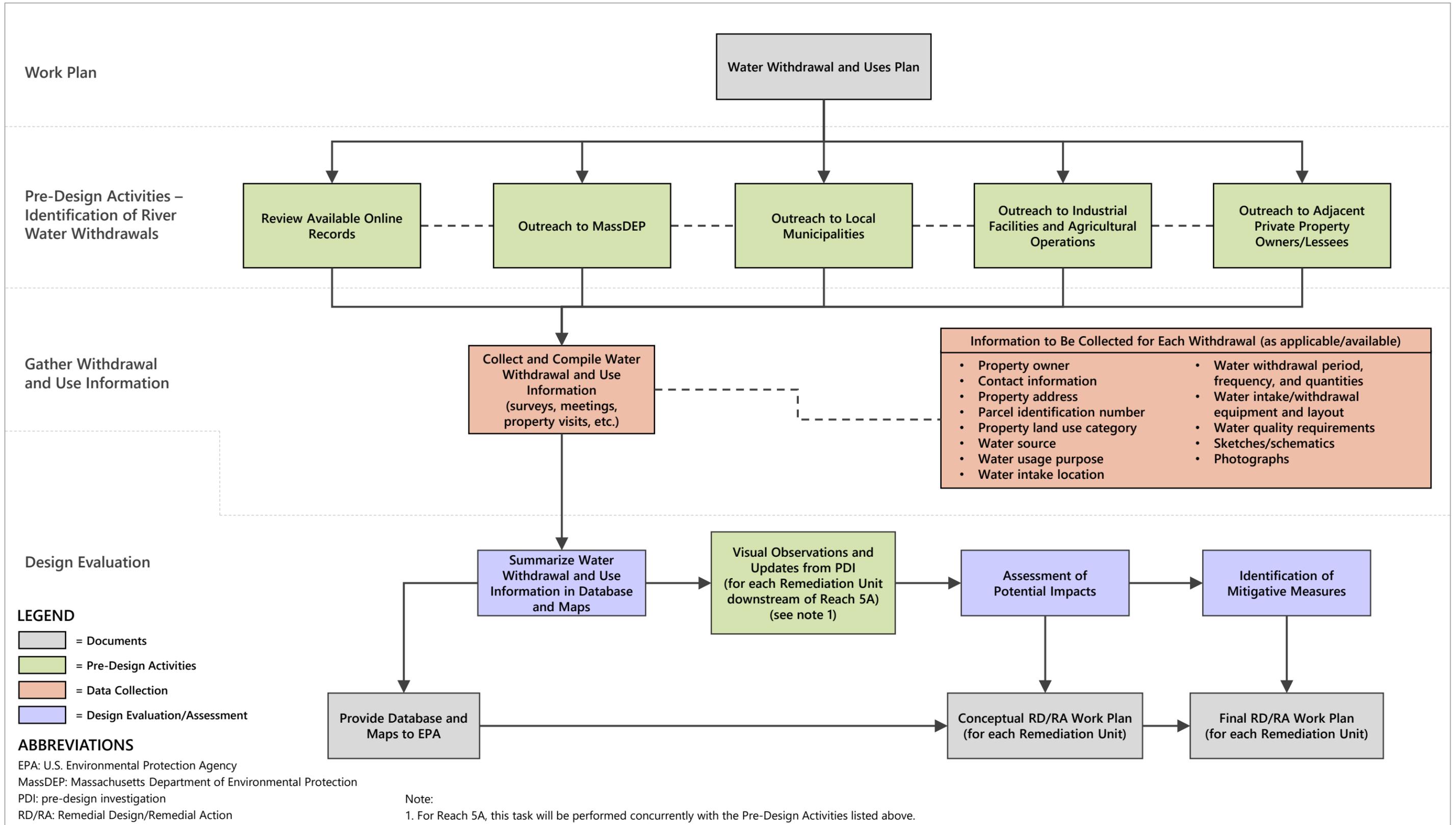


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Figure 1-2
Housatonic River Map (Subreaches in Reaches 5 and 7)

Water Withdrawal and Uses Plan
 GE-Pittsfield/Housatonic River Site



Last updated: September 13, 2022



Figure 2-1
Water Withdrawal and Use Evaluation Flow Chart
 Water Withdrawal and Uses Plan
 GE-Pittsfield/Housatonic River Site