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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
New England Office – Region I
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

October 30, 2008

Mr. Andrew T. Silfer, P.E.
General Electric Company
159 Plastics Avenue
Pittsfield, Massachusetts 01201 Sent via US Mail and Electronic Mail

RE: Direction on EPA's Specific Comment 42 on GE's March 2008 Corrective Measures Study

Dear Mr. Silfer:

Pursuant to Specific Comment 42 in EPA's comments dated September 9, 2008 to GE on its March 2008 Corrective Measures Study, EPA has consulted with state and federal agencies to identify one or more smaller sections of a floodplain area or reach with unique characteristics for more in-depth evaluation consistent with General Comments 10 and 16, which require GE to evaluate in a comprehensive manner the processes and methods for the avoidance, minimization and mitigation of impacts to the environment and for restoring impacted areas. As required in Specific Comment 42, EPA is directing GE in this letter to conduct the referenced comprehensive analyses for the six areas described below and depicted on Figures 1 through 6.

General Comment 10 states:

> EPA believes that the CMS does not address General Condition 4 of the April 13, 2007 Conditional Approval of the CMS-P, which directed GE as follows: "For each alternative being considered in the CMS evaluation, GE shall include restoration requirements commensurate with the alternative being considered." GE shall provide a detailed description of the restoration process and methods that may be used to restore habitats affected by removal and other construction activities, including steps that include avoidance, minimization, and mitigation and control of invasive species. This discussion will follow the principles outlined by EPA at http://www.epa.gov/owow/wetlands/restore/principles.html, the *Massachusetts Wildlife Habitat Protection Guidelines for Inland Wetlands* (2006), and the Society for Ecological Restoration International *Guidelines for Developing and Managing Ecological Restoration Projects*, 2nd Edition (2005). GE shall use the area(s) identified in Specific Comment 42 to illustrate this process.

This discussion at a minimum shall include:

- the process that will be used to identify and document ecological functions, services, and existing conditions in the river (bank and bottom), floodplain, and special habitats prior to implementation of an alternative. For example, as mentioned in the CMS, vernal pools have special hydrologic features. To increase the likelihood of successfully restoring these pools following removal, detailed topographic survey and information on hydrology would be required. The discussion shall describe how existing conditions for river bathymetry may be established and then replaced following potential corrective actions to achieve the pre-existing hydrologic conditions in the river.

- The methods that will be used to evaluate options for an alternative to avoid, minimize, or mitigate the impacts of the alternative, including a description of the decision-making process, taking into account the need to avoid and minimize impacts to wetlands and biota, including but not limited to Massachusetts Endangered Species Act (MESA) species to the maximum extent practicable. These methods shall include but not be limited to the following to avoid or minimize impacts from construction: the ability to iteratively evaluate contaminant concentrations and risk, the sequencing and timing of construction activities, and emphasis on timely restoration of impacted habitats following remediation.

- The methods that can be used to restore or replicate the ecological functions and services of habitat (including short-term measures such as boulder clusters in channel, placement of woody debris on the floodplain) that are affected by implementation of an alternative.

- The process by which performance standards shall be established with stakeholder input to assess the success of the restoration, including the need for specific measures to evaluate the effectiveness and control of invasive species, and the success of bank stabilization (including consideration of the ecological functions and services).

General Comment 16 states:

> There are numerous references in the CMS to the detrimental effects of construction activities for the various alternatives, including specifically the effects of roads and staging areas in the floodplain, truck traffic related to removal of soil and sediment, and general disruption of local populations of biota. There is comparatively little discussion, however, of the numerous avoidance and minimization measures that should be implemented to lessen or eliminate these effects if a remedy were implemented.
>
> GE shall provide a detailed discussion of the procedures that will be followed to use existing infrastructure and minimize habitat loss or adverse effects to MESA

species in the construction of staging areas and roads in coordination with the remediation to be performed in the alternative being evaluated. In addition, GE shall describe their process to avoid, minimize and mitigate the potential for detrimental effects of construction activities on the quality of life of affected communities as well as MESA species. As part of the discussion, GE shall provide a more detailed description of the decision process that will be used to balance considerations including but not limited to the following: the type of a removal action (e.g. dredge type), measures that can be taken to minimize the footprint of construction, requirements for supporting infrastructure such as roads, costs, and geomorphology of restored river. GE shall provide further discussion of the assumptions made in the CMS regarding staging areas, roads and infrastructure. The description shall include a graphic depicting the decision tree that will be followed during the decision process. Such decision trees have been used effectively to transparently outline these thought processes at other contaminated sediment sites (e.g. Fox River). GE shall use the area(s) identified in Specific Comment 42 to illustrate the implementation of such a decision tree.

GE shall submit detailed analyses, in narrative form, for each of the six areas described below that address, in a clear and comprehensive manner, the range of processes and methods called for in General Comments 10 and 16. These analyses shall, in particular, describe how the specifics of the above-referenced processes and methods can be applied to the unique features of each area. A few examples of the matters that shall be analyzed, addressing each of the components of General Comments 10 and 16, include, but are not limited to:

- An area-specific analysis of whether a rare species and its associated priority habitat can be avoided, and if not, a detailed discussion of the status and life history characteristics of the species and its habitat;
- An analysis of how activities can be managed, including specifying the management methods to be used, to avoid, minimize or mitigate impacts to that species;
- A detailed examination of all natural community types within an area boundary and the surrounding area to avoid or minimize impacts from the implementation of infrastructure requirements;
- An analysis of how any unavoidable impacts can then be restored; including how specific types of river banks may be evaluated and treated if they occur within an area boundary.

GE shall use the following assumptions in its response to Comment 42:

- This is an exercise to illustrate the thought process described in GE's response to Comments 10 and 16. EPA's selection of Areas 1-6 below for this in-depth evaluation, and GE's response to this requirement, are not to be viewed as selected response actions or remediation or restoration plans for such areas.
- New data shall not be collected; GE's response shall be based on all existing data that have been collected by any party.

- While EPA did not select areas in Reaches 7 or 8, EPA has not yet made any decision on corrective measures for these reaches.
- GE shall assume that all species of plants or animals that have been observed in each of the six areas are in fact using that area consistent with their life history characteristics, i.e. none of these species should be considered transient.
- When the river channel is included within the boundary of an area, GE shall also include an evaluation of the associated banks and channel in the response.
- Quality of life impacts are not part of this evaluation, yet remain important and a component of the response to General Comment 16.

The following is a brief overview of the areas with unique characteristics depicted on Figures 1 to 6 that GE shall use to illustrate the decision processes established in GE's responses to Comments 10 and 16:

Area 1 contains several vernal pools, transitional floodplain forest, steep erodable banks, and two rare dragonflies, the zebra clubtail and riffle snaketail (Figure 1). Belted kingfishers have nested in the banks in this area in previous years.

Area 2 is located in the Canoe Meadows Wildlife Sanctuary and contains transitional floodplain forest, deep emergent marsh, the eastern black currant, and the only known occurrence of black maple in the area (Figure 2). The river in this section is just downstream of the only known occurrence of the triangle floater, a rare mussel, and it should be assumed for the purpose of this response that the triangle floater occurs in the river in Area 2.

Area 3 is located across the river and upstream of the neighborhood that includes Joseph Drive (Figure 3). This area contains several vernal pools, transitional floodplain forest, red maple swamp, and a rare plant, the mudflat spikesedge.

Area 4 is located just upstream of the Pittsfield waste water treatment plant and contains several vernal pools and a high terrace floodplain forest (Figure 4). The area also has shrub swamp, deep emergent marsh, and shallow emergent marsh habitats. Rare plants found in this area include downy wild rye and early blue cohosh, both indicative of the rich soils found in the high terrace floodplain community. Two rare dragonflies also were observed here, the zebra clubtail and arrow clubtail.

Area 5 is located south of New Lenox Road and east of the Sportsmen's Club (Figure 5). This area contains shrub swamp, deep emergent marsh, shallow emergent marsh and wet meadow habitats. The adjacent upland contains a rare plant, the crooked-stemmed aster. One vernal pool is present in the area. Much of the river bank is highly erodable. American bitterns were observed in this area in the emergent marsh habitat, and may nest in the floodplain.

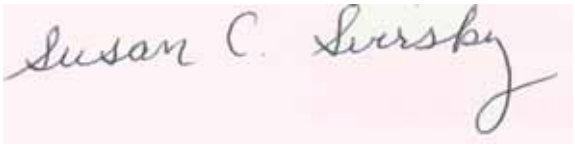
Area 6 is located upstream of Woods Pond and east of the railroad track (Figure 6). This area contains a large contiguous black ash-red maple-tamarack calcareous seepage

swamp, which has pockets of bur oak. Gray's sedge occurs in this seepage swamp. Other natural communities in this area include transitional floodplain forest, shrub swamp and deep emergent marsh and open water. The common moorhen is known to breed in this area.

GE shall submit this analysis as a component of the CMS Supplement required by EPA's comment letter dated September 9, 2008.

EPA reserves its right to require further information or evaluation from GE as part of Specific Comment 42. EPA reserves all of its rights under the Decree, including but not limited to, the right to perform and/or require additional sampling or response actions, if necessary, to meet the requirements of the Consent Decree.

If you have any questions, please give me a call.



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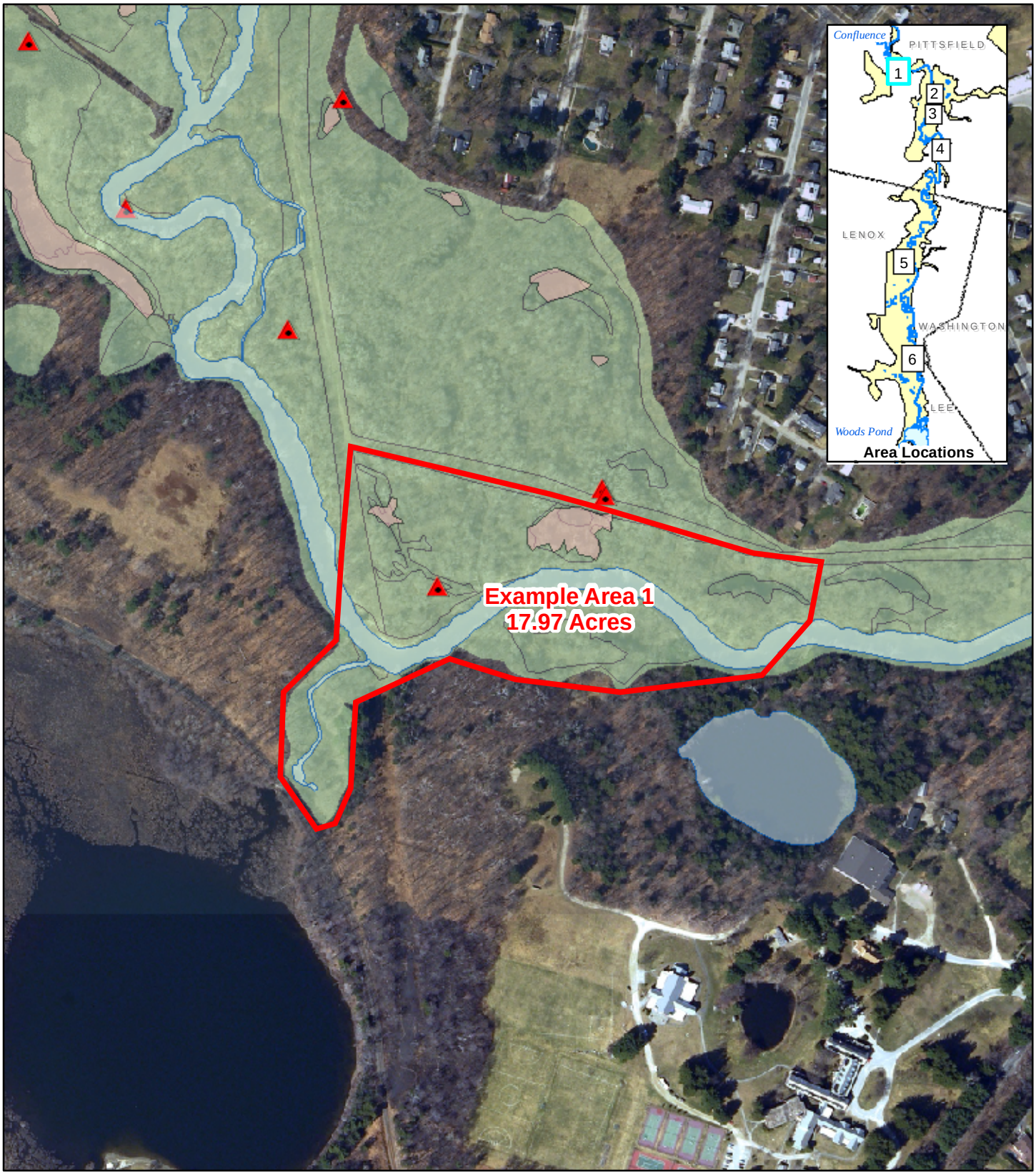
Public Information Repositories



Legend

- Rare Species Occurence
- Vernal Pools
- Wetland Communities
- Example Area Boundary

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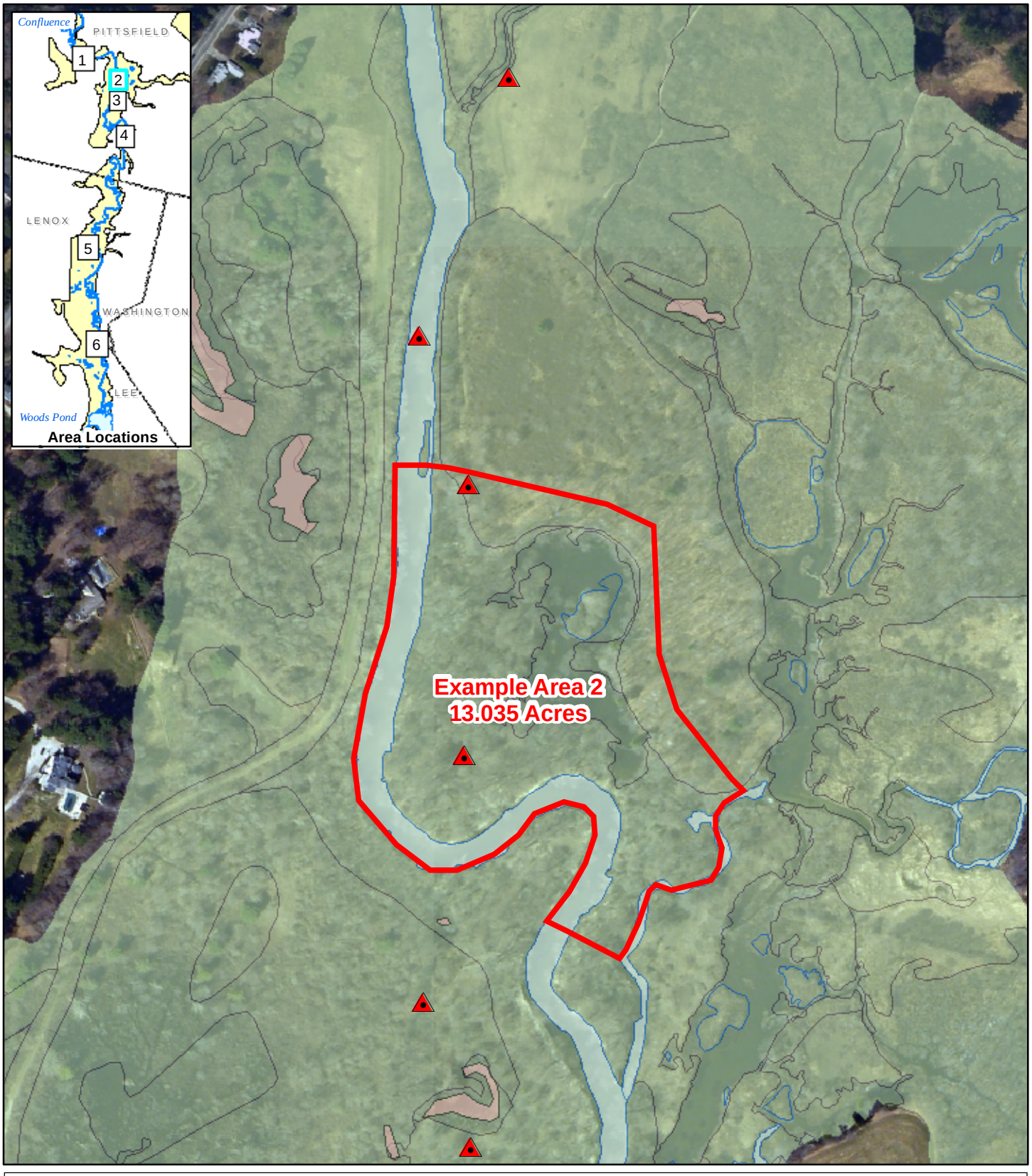
Scale in Feet

CMS Restoration Example Areas
GE/Housatonic River Site - Rest of River

AREA 1



Legend

- Rare Species Occurence
- Vernal Pools
- Wetland Communities
- Example Area Boundary

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Scale in Feet

CMS Restoration Example Areas
GE/Housatonic River Site - Rest of River

AREA 2

Legend

- Rare Species Occurence
- Vernal Pools
- Wetland Communities
- Example Area Boundary

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Scale in Feet

CMS Restoration Example Areas
GE/Housatonic River Site - Rest of River

AREA 3

Legend

- Rare Species Occurence
- Vernal Pools
- Wetland Communities
- Example Area Boundary

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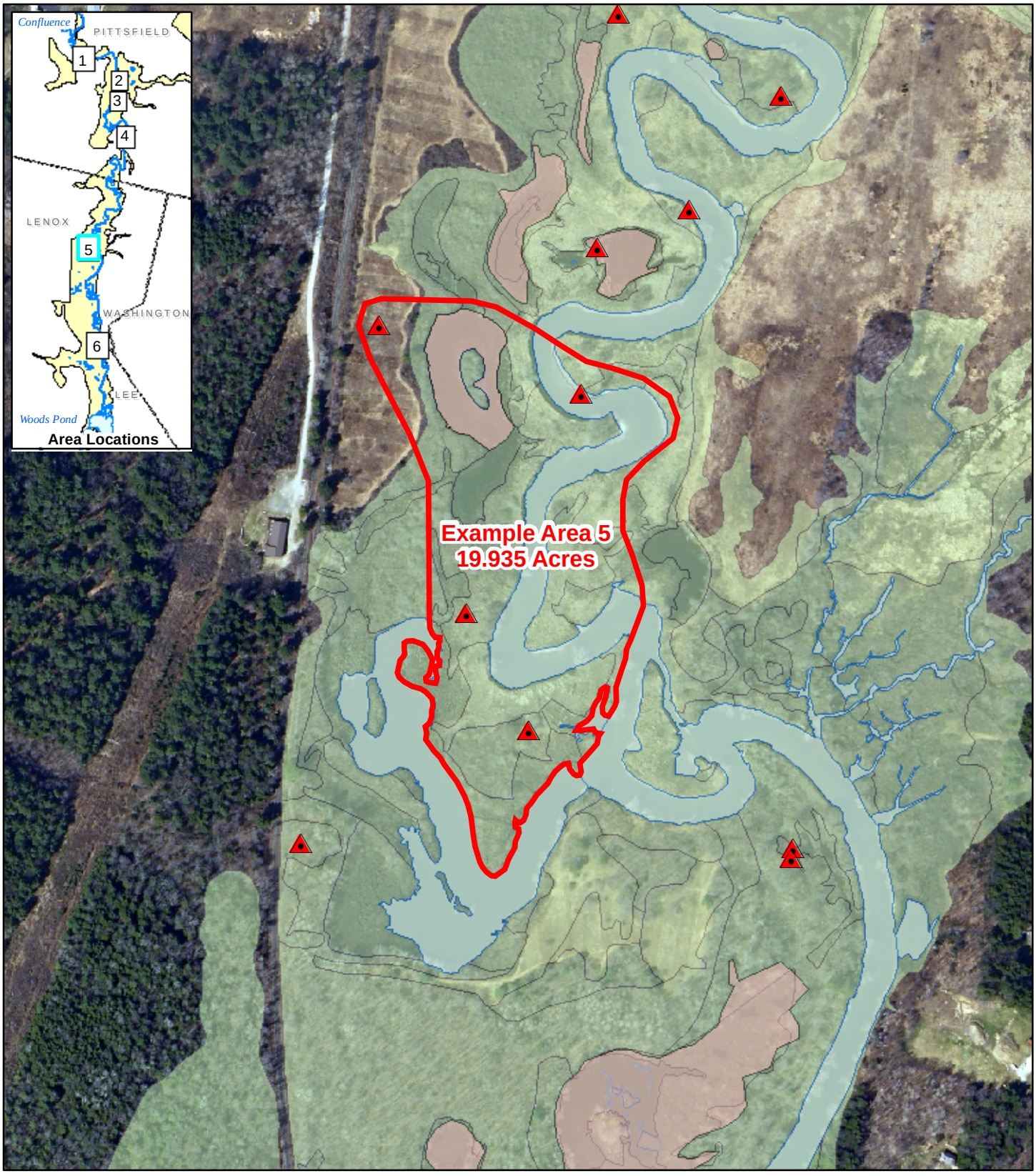
Scale in Feet

CMS Restoration Example Areas
GE/Housatonic River Site - Rest of River

AREA 4



Legend

- Rare Species Occurence
- Vernal Pools
- Wetland Communities
- Example Area Boundary

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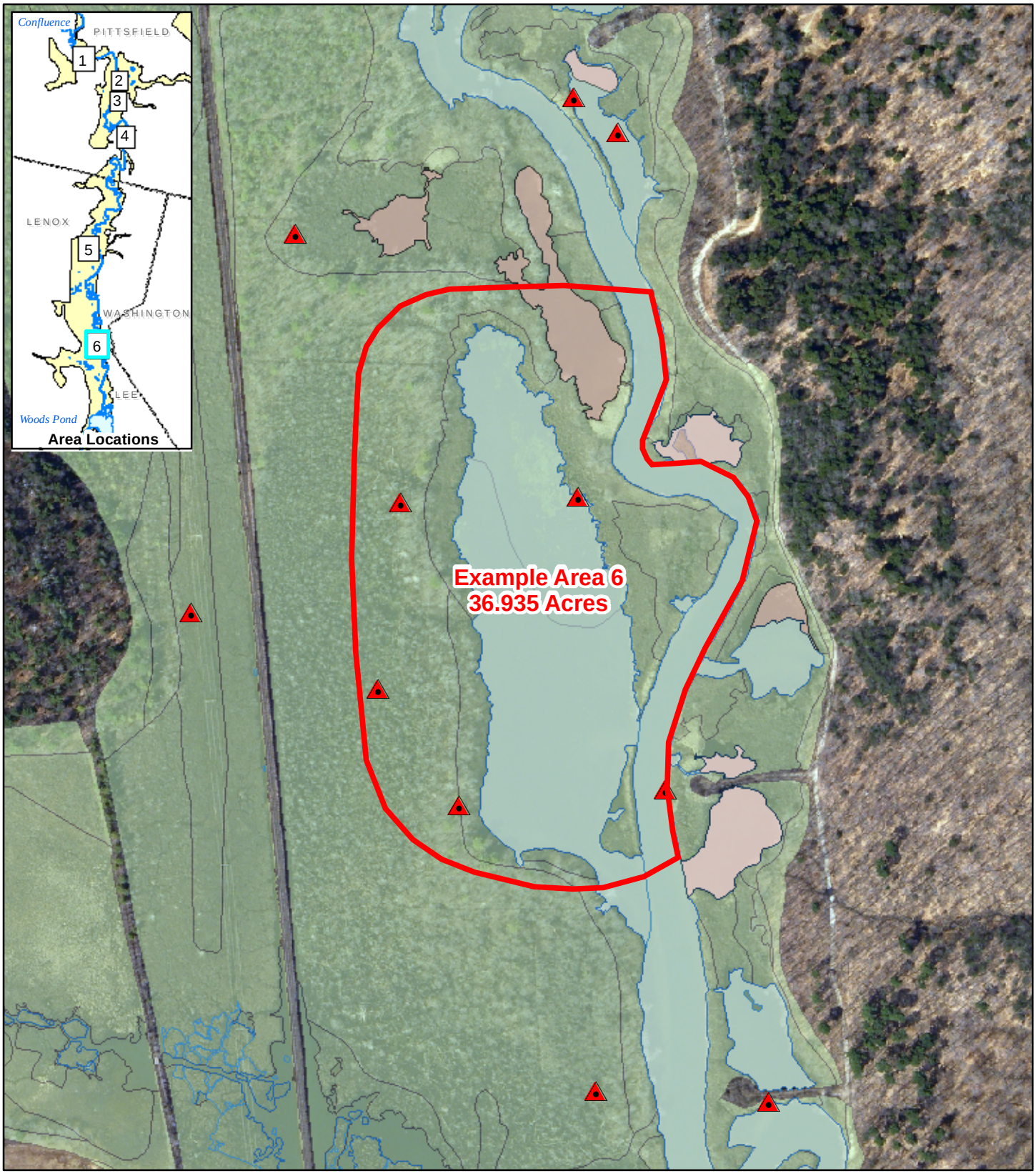
Scale in Feet

CMS Restoration Example Areas
GE/Housatonic River Site - Rest of River

AREA 5



Legend

- Rare Species Occurence
- Vernal Pools
- Wetland Communities
- Example Area Boundary

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Scale in Feet

CMS Restoration Example Areas
GE/Housatonic River Site - Rest of River

AREA 6