GE
159 Plastics Avenue
Pittsfield, MA 01201
USA

August 29, 2008

Dean Tagliaferro
EPA Project Coordinator
U.S. Environmental Protection Agency
c/o Weston Solutions, Inc.
One Lyman Street
Pittsfield, MA 01201

Re: GE-Pittsfield/Housatonic River Site
1½-Mile Reach (GECD820)
Report on 2008 Inspection of Riverbank Soil Restoration, Riprap, Aquatic Habitat Enhancement Structures and Ancillary Items

Dear Mr. Tagliaferro:

During the period 2002-2006, the U.S. Environmental Protection Agency (EPA) performed sediment and riverbank soil remediation activities in the 1½-Mile Reach of the Housatonic River (1½-Mile), extending from the Lyman Street Bridge downstream to the confluence of the East and West Branches of the river. The EPA performed these activities, known as the 1½-Mile Reach Removal Action, under the terms of the Consent Decree (CD) for the General Electric (GE)-Pittsfield/Housatonic River Site. Following completion of remediation and associated restoration activities, EPA performed a number of post-remediation monitoring activities through 2007. Starting in 2008, GE has assumed responsibility for performance of the post-remediation monitoring and maintenance activities, known as Post-Removal Site Control activities, associated with the 1½-Mile, as provided in the CD. These activities are to be performed in accordance with an *Interim Post-Removal Site Control Plan: 1½-Mile Removal Reach* (PRSC Plan; May 2008) developed by EPA.

GE has separately performed and submitted reports on the 2008 monitoring of the vegetation planted as part of restoration activities on the riverbanks of the 1½-Mile, as well as certain non-riverbank areas. On July 31, 2008, in accordance with the PRSC Plan, GE performed the 2008 annual monitoring event for the restored riverbank soil (to assess erosion potential), riprap and articulated concrete block (ACB), aquatic habitat structures installed in the river, and certain critical and non-critical ancillary items constructed as part of the remediation (e.g., retaining walls, fences, gates, pavement, etc). This monitoring event was performed on GE's behalf by Todd Cridge and Lauren Putnam of ARCADIS, and was also attended by Izabela Zapisek of Weston Solutions and Randy Sujat of the U.S. Army Corps of Engineers as representatives of EPA.

This letter summarizes the July 31, 2008 monitoring event and describes the findings and identified response actions. It separately discusses the inspections of the restored riverbank soil, the riprap and ACB, the aquatic habitat enhancement structures, and the critical and non-critical ancillary items. These inspections were performed to assess the general condition of each of these components of the 1½-Mile restoration, evaluate achievement of the applicable Maintenance Standards set out in the PRSC Plan, and determine if corrective actions are necessary. Results of these various inspections, as well as associated corrective measures, if any, are described in the field inspection forms included in Attachment A hereto

and are summarized below for each restoration component. Table 1 lists the specific items that did not meet applicable Maintenance Standards and the proposed response actions for them. Figure 1 illustrates the general area associated with the 1½-Mile and identifies the locations of those areas where area-specific corrective actions or continued monitoring was identified in 2008.

On the day of the inspection, flow in the river was approximately 85 cubic feet per second (cfs), as measured at the United States Geological Survey (USGS) River Gauge Station No. 01197000 on the East Branch of the Housatonic River in Coltsville, MA. It should be noted that there were multiple high-flow events (i.e., estimated flow greater than 440 cfs) in 2008 prior to this inspection. For example, during the week prior to the inspection, the Coltsville gauge reported maximum daily flows greater than 440 cfs on July 24 and 28, 2008.

Restored Riverbank Soil Monitoring

In accordance with the PRSC Plan, a visual inspection of the riverbanks, consisting of walking the length of the banks along riprap and through herbaceous growth, was performed to assess general characteristics of the riverbanks and to identify potential issues such as sloughing, erosion and woody and herbaceous plant cover. The Maintenance Standard for the riverbank soil restoration is "no significant erosion (e.g., ruts, gullies, washouts, or sloughing)" (PRSC Plan, p. 2-1). Woody and herbaceous plant cover species were observed to be relatively abundant and providing thick ground cover with very few areas of bare or exposed soils. Three areas were noted with visually observable loss of bank materials and therefore may not meet the Maintenance Standard. Descriptions of these areas, along with proposed area-specific response actions, are presented below and summarized in Table 1.

Area 1 – This area consists of an area of erosion located near the top of bank on the west side of the river adjacent to on Parcel I9-4-203 (Figure 1; Attachment B, Photos 1 and 2). This erosion was likely caused by concentrated surface runoff from the parking lot located at the top of the bank. Less than 0.5 cubic yard (cy) of material loss was observed, and there was no evidence of eroded materials in the river. To reduce the potential for future erosion in this area, hay bales will be positioned, as appropriate, to help divert concentrated runoff, and riprap will be placed within the eroded area to restore the area to surrounding grades and protect it from future material losses.

Area 2 – This area consists of an area of minor erosion located near the top of bank on the east side of the river adjacent to on Parcel I7-20-2 (Figure 3; Attachment B, Photos 3 and 4). This erosion was likely caused by concentrated surface runoff from the road located at the top of the bank. Less than 0.5 cy of material loss was observed, and there was no evidence of eroded materials in the river. This area will be evaluated again during the 2009 annual inspection; and based on observations made during that inspection, remedial actions may be initiated if it appears that there is continuing erosion of bank soils in this area.

Area 3 – Area 3 consists of minor erosion of surface bank soils at two general locations in the 1 ½-Mile -- near Parcel I8-23-4 and across the river from Fred Garner Park south of Pomeroy Avenue Bridge (Parcel I6-1-69). Surface soil losses in these areas have resulted in the exposure of segments of the Geoweb that was installed to promote slope stability (Figures 2 and 5; Attachment B, Photos 5 through 8). This erosion may have been caused by concentrated surface runoff from certain adjacent areas located at the top of the bank, and/or may be related to poorly compacted materials within the Geoweb at the time of installation. At these locations, a total of less than 0.5 cy of material loss was observed, and there were no indications of eroded

materials in the river. The areas of affected Geoweb appear to be stable. These areas will be evaluated again during the 2009 annual inspection; and based on observations made during that inspection, remedial actions may be initiated if it appears that there is continued soil loss or other signs of further degradation.

The completed field form documenting the restored riverbank soil monitoring is included in Attachment A to this letter.

Riprap and ACB Monitoring

The riprap and ACB monitoring program consisted of visual inspections of all riprap located within the 1½-Mile Reach to observe the general condition of the riprap and underlying banks, including noting any indications of sloughing, erosion and/or movement of associated riprap. Additionally, visual observations of the riverbed ACB located immediately downstream of the Elm Street Bridge were made to assess the general condition of the ACB and to monitor for any cracked or loose blocks and/or any other potential structural deficiencies that may adversely impact the long-term performance of the ACB. As defined in the PRSC Plan (p. 2-2), the Maintenance Standards for riprap are that there be "no significant movement of the riprap or reduction in riprap thickness that threatens the stability of the riverbanks or river channel or results in the erosion of underlying soils or sediment," and for riprap placed in swales, that there be "no movement of riprap that results in the exposure of the underlying geotextile fabric." For ACB in the river channel, the Maintenance Standard is that there be "no significant damage to (i) the ACB, (ii) the shotcrete that is tying in the ACB to the base of the adjacent retaining wall on Parcel I8-10-5, and (iii) the shotcrete at the transition between the ACB and the adjacent riprap at the downstream end of the ACB."

During the 2008 monitoring inspection, there were no observations of sloughing, erosion or degradation of the riprap, and there were no bare areas or other indications of material loss. Note that due to water levels in the 1½-Mile at the time of inspection, the transition between the ACB and the adjacent riverbed riprap immediately downstream of the terminus of the ACB could not be inspected. However, during inspection of those portions that were visible, there were no observations of areas of instability or cracking, and the shotcrete present in these areas appeared to be stable and performing as intended.

In general, the riprap appears to meet the Maintenance Standards set forth in the PRSC, as there was no observed significant movement of the riprap or reduction in riprap thickness affecting the stability of the riverbanks or river channel, or resulting in erosion of underlying soils or sediment. The ACB also meets its Maintenance Standard, as there was no observed damage to the ACB or the associated shotcrete that transitions the ACB to the neighboring structures.

The same field form used for the restored riverbank soil monitoring was also used to document the monitoring of the riprap and ACB; that form is included in Attachment A to this letter.

Aquatic Habitat Enhancement Structure Monitoring

The assessment of the aquatic habitat enhancement structures included observations to document characteristics of the structures, such as shape and location, and a qualitative assessment of the function of the installations (e.g., flow speed and depth variability, sediment deposition and scour). The inspection also assessed attainment of the Maintenance Standards for these structures, which are "no significant movement of any riprap adjacent to the structures and no significant riverbank erosion caused by the presence of the structures" (PRSC Plan, p. 2-2).

In general, the aquatic habitat enhancement structures that were visible, such as boulder clusters, weirs and wing-walls, appeared to be providing good cover and habitat. These structures appeared to be structurally stable, creating variations in water velocity and flow patterns and associated variations in the stream bottom topography, as evidenced by the presence of scour/depositional areas, riffles and/or deep pools in the river channel. Further, the development of these variations in sediment elevation and the creation of variability in the water column appeared to be providing good habitat for fish and aquatic invertebrates, as indicated by the observed occurrence of riverine fauna in the vicinity of the structures. Overall, observations of the functionality of the aquatic habitat enhancement structures indicate that the habitat restoration objectives of these structures are being met.

In addition, no significant movement of any riprap adjacent to the structures and no significant riverbank erosion caused by the presence of the structures was observed. Therefore, the aquatic habitat enhancement structures met the Maintenance Standards defined in the PRSC.

The same field form used for the previously discussed restoration components was also used to document the monitoring of the aquatic habitat enhancement structures; that form is included in Attachment A. Photographs of the aquatic habitat enhancement structures are provided in Attachment C.

Ancillary Item Monitoring – Non-Critical Items

The monitoring program for ancillary items included visual inspections of the features identified in the PRSC Plan as non-critical restoration items. These include certain fencing, pavement, guardrails, gates and other restored areas, as well as the backflow prevention valves at Fred Garner Park, that were installed or restored in 2006. (As noted in the PRSC Plan, monitoring of ancillary items that were installed or restored prior to 2006 was previously completed by EPA.) The Maintenance Standard for these items is "no substantial variation from as-built conditions" (PRSC Plan, p. 2-3).

During the 2008 monitoring inspection, two ancillary items were observed to have variation from the as-built condition (as established in the PRSC), and therefore did not meet the Maintenance Standard. Descriptions of these items, along with proposed response actions, are presented below and summarized in Table 1:

Area 4 – A portion of the fencing adjacent to the parking lot on Parcel I8-24-1 was observed to be damaged (Figure 1; Attachment B, Photos 9 and 10), an apparent result of snow removal or plowing activities associated with the adjacent parking lot. As a result, the affected area of fencing will be repaired and/or replaced.

Area 5 – The backflow prevention valves at Fred Garner Park (Figure 5) had observable natural woody debris and leaf litter located within the valves. To maintain proper operation and to minimize the potential for future flooding events, the backflow valves will be cleaned out and/or flushed.

All other non-critical ancillary items met the Maintenance Standard defined in the PRSC. The field form documenting the monitoring of the non-critical ancillary items is included in Attachment A to this letter. It should be noted that the 2008 inspection of the non-critical restoration items was the final scheduled inspection of these items, as set forth in the PRSC Plan.

Ancillary Item Monitoring – Critical Items

The critical restoration items identified in the PRSC Plan include: (1) the retaining walls adjacent to Parcels I8-23-6, I8-24-1, I8-10-5 and I8-10-4, and the City Layout for High Street-abutting High Street (formerly lot I8-10-1); (2) fencing along the retaining walls at Parcels I8-10-5 and I8-10-4, and the City Layout for High Street-abutting High Street; (3) handrails on the Silver Lake outfall structure; (4) guardrails along High Street and Deming Street; and (5) fencing along Caledonia Street. The above-mentioned retaining walls were inspected and reviewed for stability and functionality. In general, inspection of the retaining walls was performed to visually assess the condition of the concrete. In the event that such walls were not exposed (e.g., obscured by vegetative growth), the inspection focused on the riverbank and the area beyond the top of the riverbank to determine if there had been any movement of the riverbank and potentially the walls. For the other critical restoration items listed above, the inspection consisted of a visual observation confirming the presence and assessing the general condition of each of these items with respect to the "as-built" condition.. The Maintenance Standard for all the critical restoration items is "no substantial variation from as-built conditions" (PRSC Plan, p. 2-3)

For all five retaining walls monitored during the 2008 inspection, the general condition of the physical features of the wall and the top-of-bank features behind the wall was observed to be good, and there were no observations of displacement of soil, settlement, sloughing/slumping, pronounced drop in ground surface elevation or excessively leaning fences, trees, utility poles or fences. The retaining walls met the Maintenance Standard defined in the PRSC. The approximate locations of the retaining walls included in the inspection are illustrated on Figures 2 and 3, and the field forms documenting the details of the monitoring inspection for the retaining walls are included in Attachment A. Each of the other critical items listed above was observed to be in good condition and structurally sound with no obvious damage.

Future Activities

GE will implement the identified restoration, repair, and maintenance actions identified above and in Table 1 (i.e., placement of riprap and hay bales to address the erosion on the west bank of the river adjacent to on Parcel I9-4-203, repair or replacement of the fencing adjacent to the parking lot on Parcel I8-24-1, and cleaning of the backflow prevention valves at Fred Garner Park) within 30 days of EPA approval of the actions proposed herein. Further, within 30 days of completing those corrective actions, as required by the PRSC Plan, GE will submit a report describing the corrective action and any required follow-up measures. In addition, these monitoring activities and the corrective actions performed will be summarized in the forthcoming 2008 Annual Report on 1½-Mile monitoring activities.

In accordance with the PRSC Plan, the next scheduled inspection of the restored riverbank soil, the riprap and ACB, the aquatic habitat enhancement structures, and the critical ancillary items will occur in summer 2009. In addition, the riverbank soil, riprap and ACB, and aquatic habitat enhancement structures will be inspected after any flow event that exceeds 3,500 cfs at the USGS River Gauge Station at Coltsville.

Please contact me if you have any questions regarding the information presented in this letter.

Sincerely,

Kevin Mooney /LJP

Kevin G. Mooney
Remediation Project Manager

Attachments

cc: Holly Inglis, EPA
John Kilborn, EPA
Rose Howell, EPA*
K.C. Mitkevicius, USACE
Linda Palmieri, Weston
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Michael Gorski, MDEP
Susan Steenstrup, MDEP
Jane Rothchild, MDEP*
Anna Symington, MDEP*
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Nancy E. Harper, MA AG*
Mayor James Ruberto, City of Pittsfield
Richard Nasman, Berkshire Gas Co.
Michael Carroll, GE*
Rod McLaren, GE*
James Bieke, Goodwin Procter
Mark Gravelding, ARCADIS
Todd Cridge, ARCADIS
Public Information Repositories
GE Internal Repositories

* *Without attachments*

Tables

Table 1
2008 Inspection of Riverbank Soil, Riprap, Aquatic Habitat Enhancement Structures, and Ancillary Items - Summary of Items Requiring Response

1 ½-Mile Reach of the Housatonic River
General Electric Company – Pittsfield, Massachusetts

Areas/Items Not Meeting Maintenance Standards	Description	Proposed Response Action
1 - West bank of river on Parcel I9-4-203	Top-of-bank erosion likely due to concentrated runoff from parking lot located at the top of the bank. Less than 0.5 cy of material loss; no evidence of eroded material in river.	Restoration activities will include installing riprap to restore affected area to surrounding grades and protect against further erosion, and placement of hay bales at top-of-bank to divert concentrated runoff.
2 - East bank of river on Parcel I7-20-2	Top-of-bank erosion likely due to concentrated runoff from road located at the top of the bank. Less than 0.5 cy of material loss; no evidence of eroded material in river.	Inspect during next monitoring visit.
3 - Areas of exposed Geoweb: Parcel I8-23-4 and Parcel I6-1-69	Minor mid-bank erosion has resulted in the exposure of some Geoweb. Less than 0.5 cy of material loss; no evidence of eroded material in river.	Inspect during next monitoring visit.
4 - Fencing around parking lot on Parcel I8-24-1	Portion of the fencing has been damaged and has fallen down, an apparent result of snow removal and plowing.	Repair and/or replace fencing.
5 - Backflow prevention valves at Fred Garner Park	Natural woody debris and leaf litter observed inside the valve.	Clean out and/or flush valves.

Figures

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NOTES:

1. THE BASEMAP IMAGES PRESENTED ON THIS FIGURE WERE OBTAINED FROM THE OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MassGIS) COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS 1:5000 COLOR ORTHO IMAGERY, 2005.
2. NOT ALL PHYSICAL FEATURES SHOWN.

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GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
1-1/2 MILE 2008 INSPECTION OF RIVERBANK SOIL, RIPRAP, AQUATIC HABITAT ENHANCEMENT STRUCTURES AND ANCILLARY ITEMS

STUDY AREA LOCATION MAP

ARCADIS

FIGURE
1

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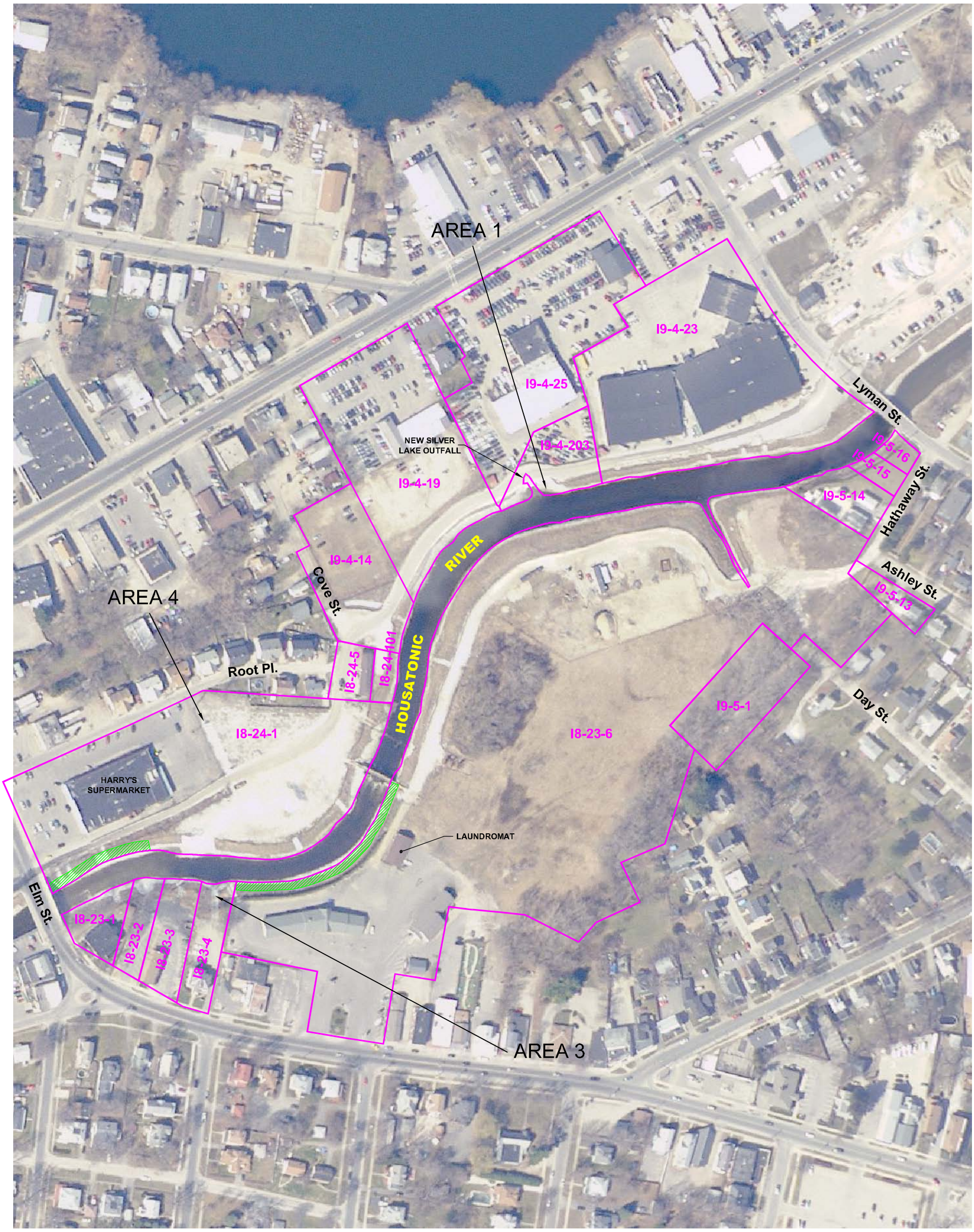

LEGEND

I9-4-19 PARCEL ID

APPROXIMATE PROPERTY LINE

APPROXIMATE LOCATION OF RETAINING WALL

NOTES:

1. THE BASEMAP IMAGES PRESENTED ON THIS FIGURE WERE OBTAINED FROM THE OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MassGIS) COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS 1:5000 COLOR ORTHO IMAGERY, 2005.
2. NOT ALL PHYSICAL FEATURES SHOWN.

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GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
1-1/2 MILE 2008 INSPECTION OF RIVERBANK SOIL, RIPRAP, AQUATIC HABITAT ENHANCEMENT STRUCTURES AND ANCILLARY ITEMS

PHASE 1 STUDY AREA LOCATION MAP

ARCADIS

FIGURE
2

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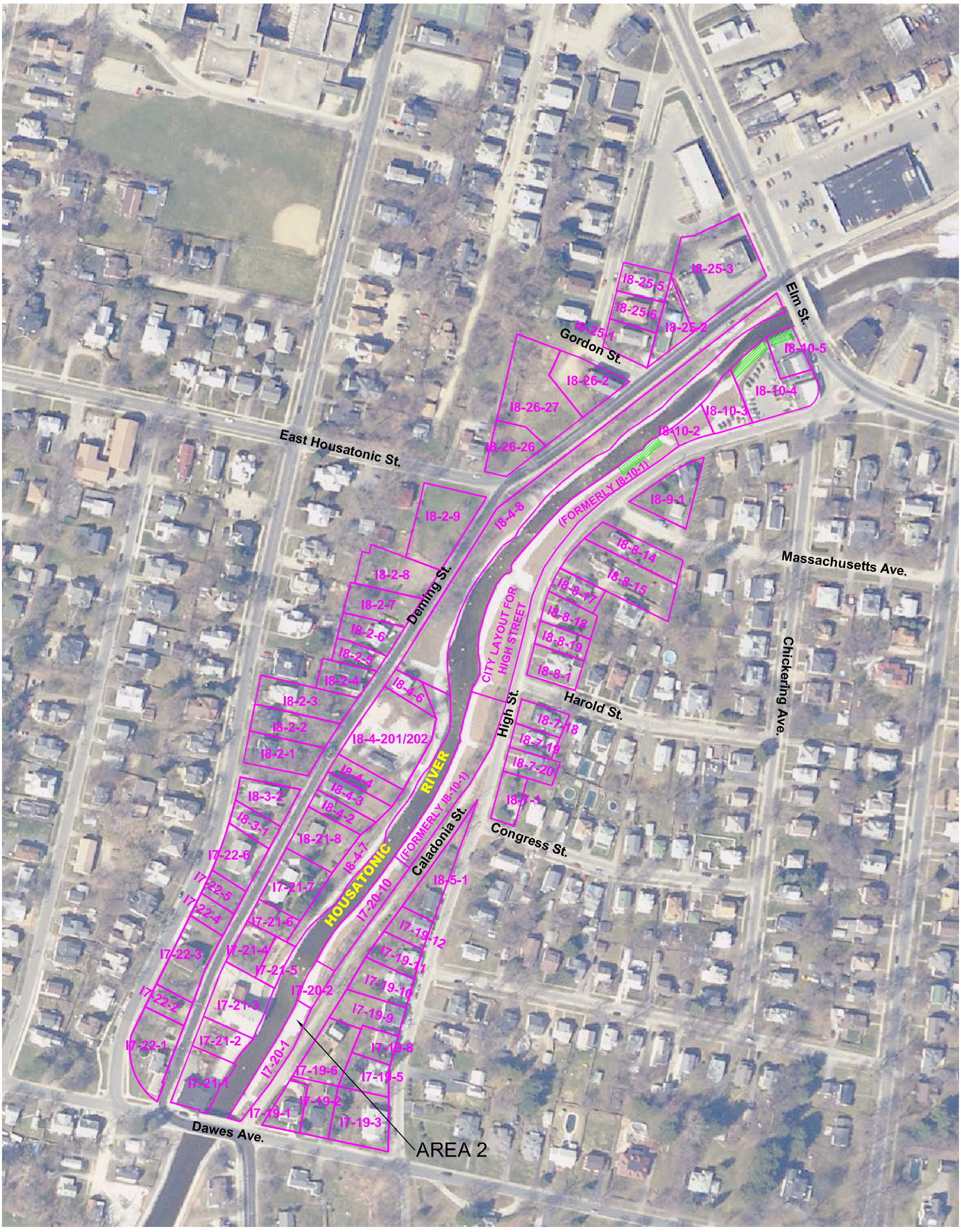

LEGEND

I7-19-1 PARCEL ID

APPROXIMATE PROPERTY LINE

APPROXIMATE LOCATION OF RETAINING WALL

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1. THE BASEMAP IMAGES PRESENTED ON THIS FIGURE WERE OBTAINED FROM THE OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MassGIS) COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS 1:5000 COLOR ORTHO IMAGERY, 2005.
2. NOT ALL PHYSICAL FEATURES SHOWN.

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GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
1-1/2 MILE 2008 INSPECTION OF RIVERBANK SOIL, RIPRAP, AQUATIC HABITAT ENHANCEMENT STRUCTURES AND ANCILLARY ITEMS

PHASE 2 STUDY AREA LOCATION MAP

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FIGURE
3

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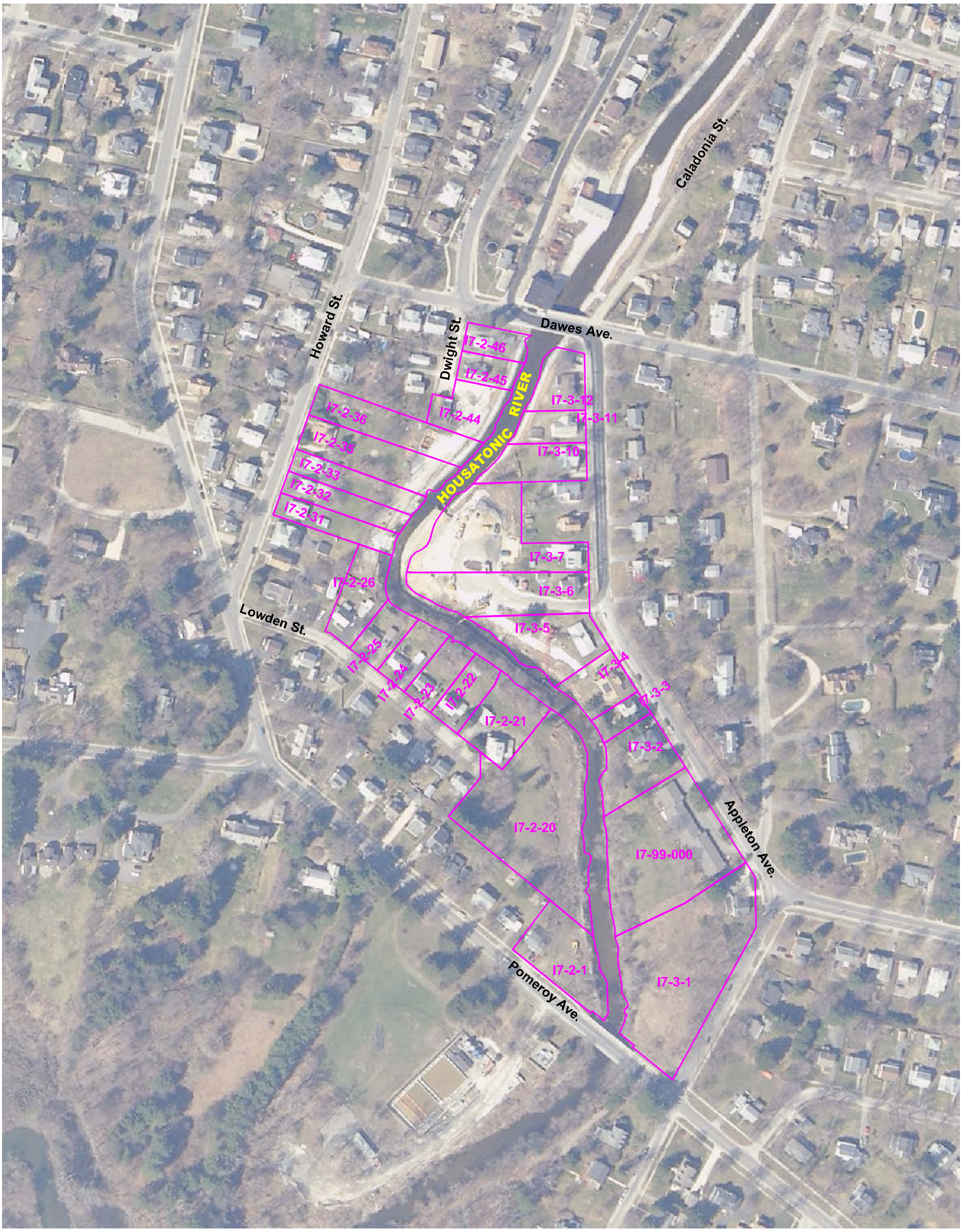

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I7-2-20 PARCEL ID

APPROXIMATE PROPERTY LINE

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1. THE BASEMAP IMAGES PRESENTED ON THIS FIGURE WERE OBTAINED FROM THE OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MassGIS) COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS 1:5000 COLOR ORTHO IMAGERY, 2005.
2. NOT ALL PHYSICAL FEATURES SHOWN.

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GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
1-1/2 MILE 2008 INSPECTION OF RIVERBANK SOIL, RIPRAP, AQUATIC HABITAT ENHANCEMENT STRUCTURES AND ANCILLARY ITEMS

PHASE 3 STUDY AREA LOCATION MAP

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FIGURE
4

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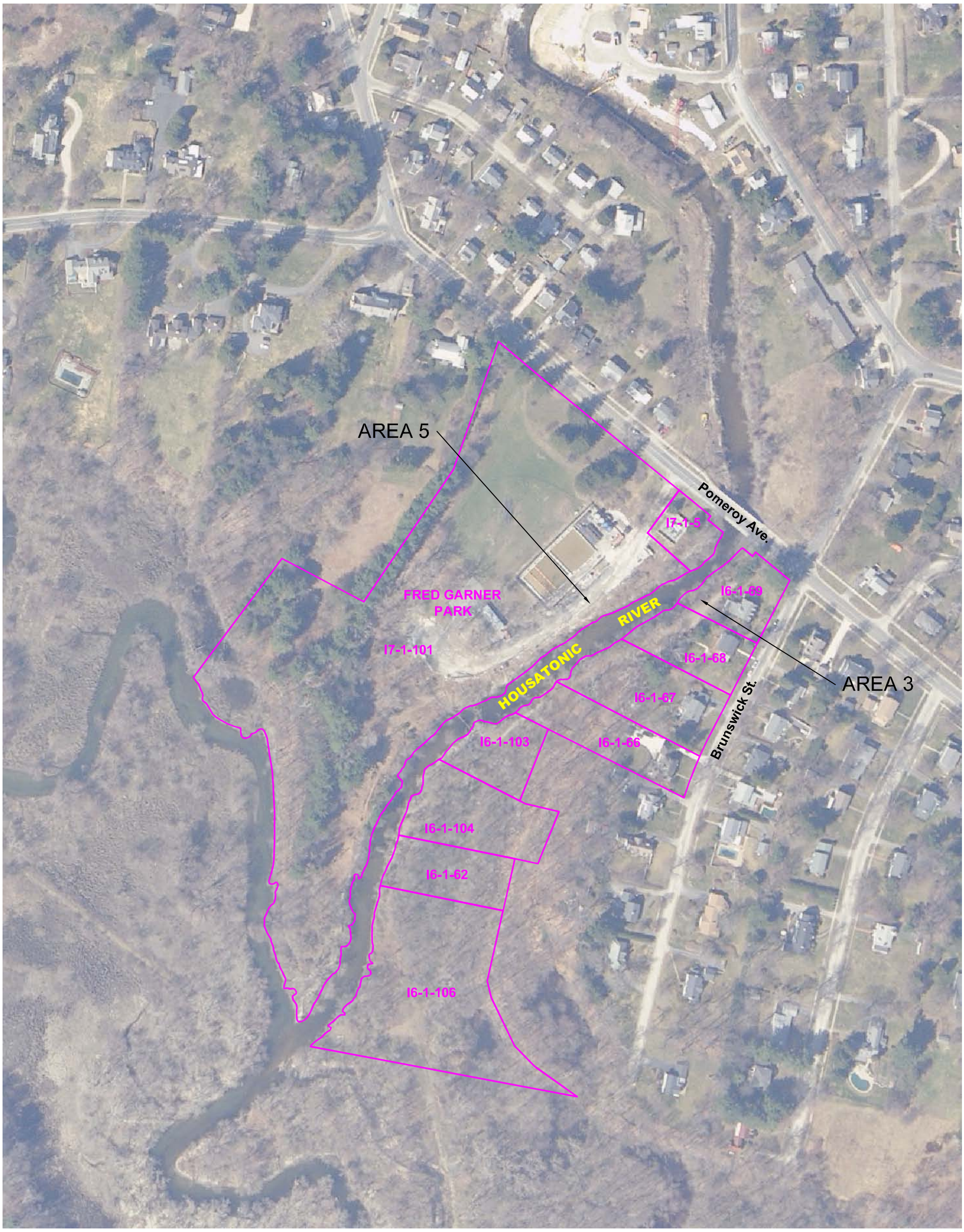

LEGEND

I6-1-106 PARCEL ID

APPROXIMATE PROPERTY LINE

NOTES:

1. THE BASEMAP IMAGES PRESENTED ON THIS FIGURE WERE OBTAINED FROM THE OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MassGIS) COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS 1:5000 COLOR ORTHO IMAGERY, 2005.
2. NOT ALL PHYSICAL FEATURES SHOWN.

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GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
1-1/2 MILE 2008 INSPECTION OF RIVERBANK SOIL, RIPRAP, AQUATIC HABITAT ENHANCEMENT STRUCTURES AND ANCILLARY ITEMS

PHASE 4 STUDY AREA LOCATION MAP

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FIGURE
5

Attachments

Attachment A

Monitoring Field Forms

RIVERBANK SOIL, RIPRAP AND SWALE, AND ARTICULATED CONCRETE BLOCKS (ACB) MONITORING FIELD FORM

Date: 7/31/08
Lead Monitor: Todd Cridge/Lauren Putnam

Monitoring Area	Monitoring Program	Comments and Brief Description of Specific Location
Lyman St Bridge to Elm Street Bridge	Soil:	Area 1 – Top-of-bank erosion near Parcel I9-4-203. Less than 0.5 cy of material loss; no evidence of eroded material in river. Area 3 – Minor mid-bank erosion resulting in exposed Geoweb (near Parcel I8-23-4). Less than 0.5 cy of material loss; no evidence of eroded material in river.
	Riprap:	
	Enhancement Structures:	
Elm Street Bridge to Dawes Ave Bridge	Soil:	Area 2 – Top-of-bank erosion on Parcel I7-20-2. Less than 0.5 cy of material loss; no evidence of eroded material in river.
	Riprap:	
	Enhancement Structures:	
	ACB:	Observation of the transition between rock/shotcrete was hindered by elevated water level in river.
Dawes Ave Bridge to Pomeroy Ave Bridge	Soil:	
	Riprap:	
	Enhancement Structures:	
Pomeroy Ave to the Confluence	Soil:	Area 3 – Minor mid-bank erosion resulting in exposed Geoweb (south of Pomeroy Ave. Bridge); Less than 0.5 cy of material loss; no evidence of eroded material in river.
	Riprap:	
	Enhancement Structures:	
	ACB:	

NON-CRITICAL RESTORATION ITEMS INSPECTION FIELD FORM

Date: 7/31/08
Lead Monitor: Todd Cridge/Lauren Putnam

Restoration Items (Installed or Restored in 2006)	Inspection	Corrective Action	Comments
Restored Areas including fencing and pavement I9-4-201	YES NO	YES NO	
Restored Areas including pavement and a portion of fencing adjacent to parking lot on Parcel I8-24-1	YES NO	YES NO	Some sections of fencing have been damaged (likely due to snow removal and plowing) and need repair/replacement.
Pavement, fencing and gates on Parcel I8-24-5	YES NO	YES NO	
Restored Areas including pavement on Hathaway Street	YES NO	YES NO	
Restored Areas including fencing, gates and guard rail on Parcel 18-23-6	YES NO	YES NO	
Black stone mix parking lot on Parcels I9-4-25 and I9-4-203	YES NO	YES NO	
Restored Areas including fencing and guardrail on Parcels I8-10-2 and I8-10-3	YES NO	YES NO	
Restored Areas including fencing and gate along the parking lot on Parcel I8-4-201/202	YES NO	YES NO	
Restored Areas including fencing and gates on Parcels I6-1-67 and I6-1-68 and I6-1-69	YES NO	YES NO	
Restored Areas including pavement, guardrail and gate at Fred Garner Park (Parcel I7-1-101)	YES NO	YES NO	
Backflow prevention valves at Fred Garner Park (including the need to clean out and flush out the valves).	YES NO	YES NO	Natural woody debris and leaf litter observed in valves.

THE RETAINING WALLS LOCATED AT PARCELS I8-23-6 AND I8-24-1 INSPECTION FIELD FORM

Date: 7/31/08
Lead Monitor: Todd Cridge/Lauren Putnam

Retaining wall: **Parcel I8-23-6 OR** **I8-24-I**
(circle one)

Wall Deflection Indicators		**Comments**
1. GENERAL CONDITION	GOOD FAIR POOR	
Good interlocking of riprap Protection	YES NO	
Scour of riprap @ Toe occurring (Length____, Width____, Depth____)	YES NO	
Loss of section of riprap or Soil (Length____, Width____, Depth____)	YES NO	
2. SLOPES		
General Condition	GOOD FAIR POOR	
Displacement of riprap or soil	YES NO	
Settlement	YES NO	
Sloughing/Slumping	YES NO	
Exposed Underlayer	YES NO	
3. TOP OF RIVERBANK		
General Condition	GOOD FAIR POOR	
Displacement of soil	YES NO	
Settlement	YES NO	
Sloughing/Slumping	YES NO	
Exposed Underlayer	YES NO	
4. OTHER		
Cracks in vegetative areas	YES NO	
Visible bulge on the riverbank slope	YES NO	
4. AREA 20-FT BEYOND TOP OF RIVERBANK		
Cracks in vegetative areas	YES NO	
Cracks in pavement parallel to top of bank	YES NO	
Pronounced drop in ground surface elevation	YES NO	
Excessively leaning trees, utility poles or fences	YES NO	
PHOTOGRAPHS:	YES NO	

RECOMMENDATIONS:

THE RETAINING WALL LOCATED AT PARCELS I8-10-5 INSPECTION FIELD FORM

Date: 7/31/08
Lead Monitor: Todd Cridge/Lauren Putnam

Retaining wall: ParcelI8-10-5

Wall Deflection Indicators		**Comments**
1. GENERAL CONDITION Exposed Wall Face Condition Parking Lot Condition	[GOOD] FAIR POOR [Good] Fair Poor [Good] Fair Poor	
2. EXPOSED WALL FACE General Condition Deteriorated Concrete (e.g., flaking, spalling) Cracking of wall Cracking around anchor heads (if Yes, describe pattern, e.g., parallel lines or circular_____) Interface between wall and Elm St. Bridge Abutment : Excessively wide gap Interface between wall and ACB: Excessively wide gap	[GOOD] FAIR POOR YES [NO] YES [NO] YES [NO] YES [NO] YES [NO]	
3. PARKING LOT (approx 20-ft behind wall) General Condition Cracks in asphalt pavement parallel to the wall Excessively leaning fences	[GOOD] FAIR POOR YES [NO] YES [NO]	
4. OTHER Depressed area along the rear of wall	YES [NO]	
PHOTOGRAPHS:	YES [NO]	
RECOMMENDATIONS:		

THE RETAINING WALLS LOCATED AT PARCELS I8-10-4 AND CITY LAYOUT FOR HIGH STREET ABUTTING HIGH STREET FORMALLY PARCEL I8-10-1 INSPECTION FIELD FORM

Date: _7/31/08_____ _____
Lead Monitor: _____Todd Cridge/Lauren Putnam_____

Retaining wall: **Parcel I8-10-4 OR** **Layout for High St (formally I8-10-1)**
(circle one)

Wall Deflection Indicators		**Comments**
1. GENERAL CONDITION Timber Facades Paved Areas behind wall	GOOD FAIR POOR Good Fair Poor Good Fair Poor	
2. EXPOSED TIMBER FACADES General Condition Missing, damaged or loose boards (if Yes, describe _____)	GOOD FAIR POOR YES NO	
3. PAVED AREAS (approx 20-ft behind wall) General Condition Cracks in asphalt pavement parallel to the wall Excessively cracked curbs	GOOD FAIR POOR YES NO YES NO	
4. OTHER Pronounced drop in ground surface elevation Excessively leaning fences, trees or utility poles	YES NO YES NO	
PHOTOGRAPHS:	YES NO	
RECOMMENDATIONS:		

Attachment B

Riverbank Inspection
Photographic Log

ATTACHMENT B
PHOTOGRAPHIC LOG

2008 INSPECTION OF RIVERBANK SOIL, RIPRAP, AQUATIC HABITAT ENHANCEMENT STRUCTURES, AND ANCILLARY ITEMS
1½-MILE REACH OF THE HOUSATONIC RIVER
GENERAL ELECTRIC CORPORATION – PITTSFIELD, MASSACHUSETTS

Photograph 1: Area 1

Photograph 2: Area 1

Photograph 3: Area 2

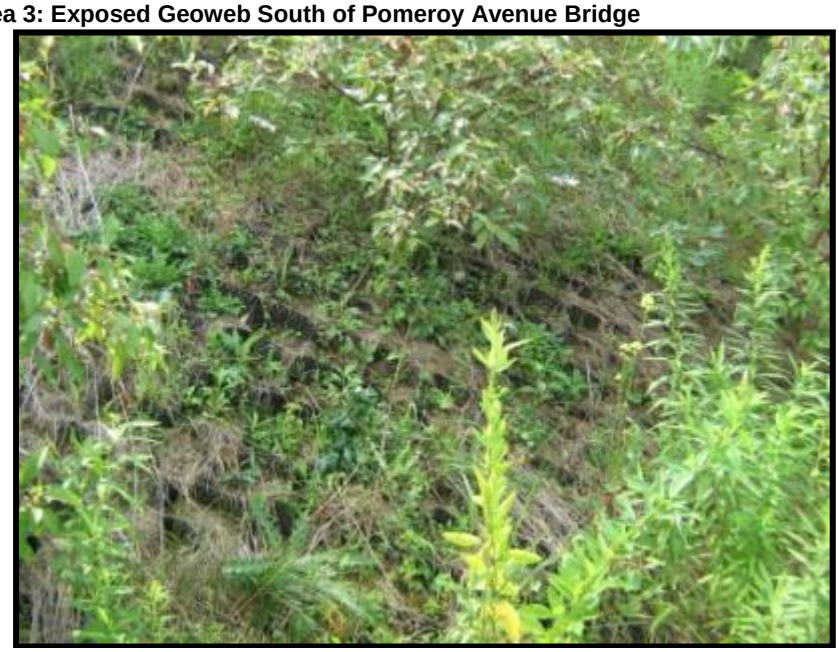
Photograph 4: Area 2

Photograph 5: Area 3: Exposed Geoweb upstream of Swale near Parcel I8-23-4

Photograph 6: Area 3: Exposed Geoweb on Parcel I8-23-4

Photograph 7: Area 3: Exposed Geoweb South of Pomeroy Avenue Bridge

Photograph 8: Area 3: Exposed Geoweb South of Pomeroy Avenue Bridge



Photograph 9: Area 4

Photograph 10: Area 4

Attachment C

Aquatic Habitat Enhancement
Structure Photographic Log

ATTACHMENT C
AQUATIC HABITAT ENHANCEMENT STRUCTURES PHOTOGRAPHIC LOG

2008 INSPECTION OF RIVERBANK SOIL, RIPRAP, AQUATIC HABITAT ENHANCEMENT STRUCTURES, AND ANCILLARY ITEMS
1½-MILE REACH OF THE HOUSATONIC RIVER
GENERAL ELECTRIC CORPORATION – PITTSFIELD, MASSACHUSETTS

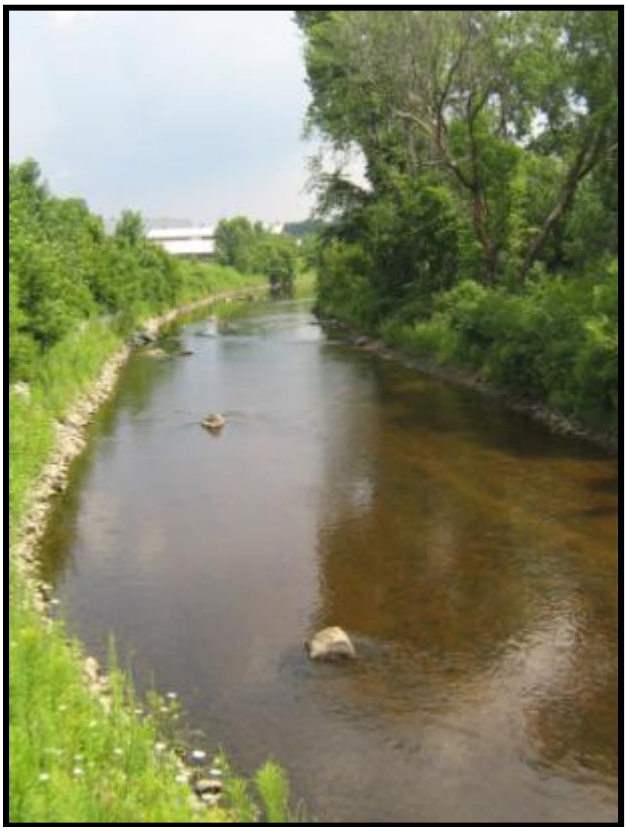
Photograph 1: Wing Wall Deflector and Boulder Cluster

Photograph 2: Boulder Cluster

Photograph 3: Riprap Swale and Wing Wall Deflector

Photograph 4: Wing Wall and Gravel Bar

Photograph 5: Series of Boulder Clusters

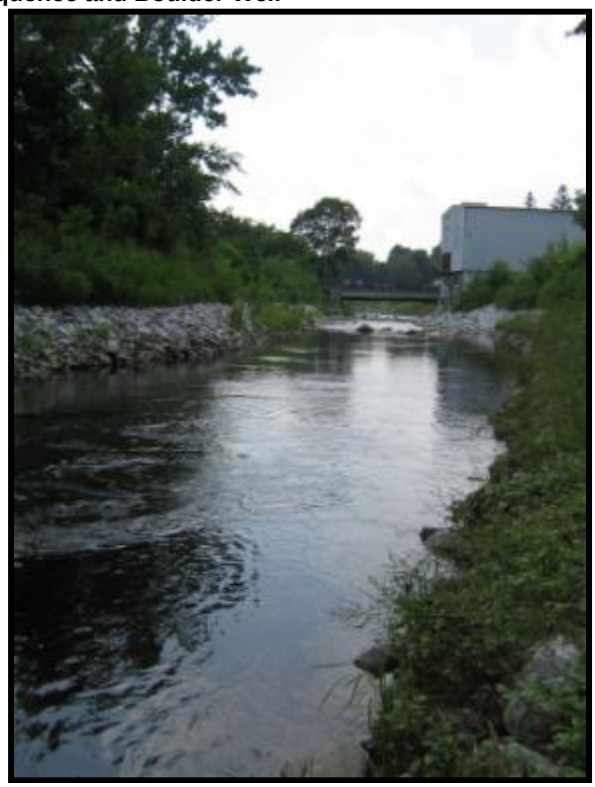


Photograph 6: Paired Boulder Clusters

Photograph 7: Riffle Sequence

Photograph 8: Pool-Riffle Sequence

Photograph 9: Pool-Riffle Sequence and Boulder Weir



Photograph 10: Pool-Riffle Sequence and Boulder Weir

Photograph 11: Habitat Boulders