

MASSACHUSETTS SUBCOUNCIL
of the
HOUSATONIC RIVER TRUSTEE COUNCIL

United States, et al., v. General Electric Company,
Civil Action Nos. 99-30225-MAP; 99-30226-MAP; and 99-30227-MAP (D. Mass.)

RESOLUTION # 49

Authorize use of \$44,958.75 in Massachusetts Trustee Oversight funds

1. *Whereas*, the United States Department of Commerce, acting by and through the National Oceanic and Atmospheric Administration ("NOAA"), the Commonwealth of Massachusetts, acting by and through its Executive Office of Energy and Environmental Affairs ("EEA"), as administered by its Department of Environmental Protection (MassDEP), the State of Connecticut, acting by and through its Department of Energy and Environmental Protection ("CTDEEP"), the United States Department of the Interior ("DOI"), acting by and through the United States Fish and Wildlife Service ("USFWS"), are the four Natural Resource Trustee agencies ("Trustees") responsible for restoration in the Housatonic River Environment with respect to the above-referenced case;
2. *Whereas*, the Trustees have entered into a Memorandum of Agreement ("MOA") effective January 30, 2002, to coordinate activities for the above-referenced case; and pursuant to Section VII Paragraph B (1) of the MOA, a Trustee SubCouncil for the Geographic Region of Massachusetts ("MA SubCouncil") has been established and subsequently revised pursuant to MA SubCouncil Resolutions #4 and #25 to consist of two voting members from the Massachusetts Trustee and the Federal Trustee agencies, EEA and USFWS;
3. *Whereas*, paragraph 118.e. required GE to install and monitor a total of 12 acres, or the equivalent of 12 acres of forested/wetland habitat at an off-site non-contaminated riparian area within the Housatonic River watershed outside the Site designated by the Trustees and mutually agreed upon with GE;
4. *Whereas*, the MA SubCouncil has approved the attached Scope of Work (SOW) prepared by the Massachusetts Bureau of Water Resources Wetlands Protection Program to assist the MA SubCouncil in identifying appropriate sites consistent with Paragraph 118.e. and Technical Attachment I to the Statement of Work;
5. *NOW, THEREFORE, BE IT RESOLVED*, after a thorough review of the proposed uses for such sums, the MA SubCouncil authorizes the release of funds from the Massachusetts NRD Trust Account (Housatonic River Oversight N070) to the MA Wetlands Protection Program for implementation of the attached SOW. These funds shall be allocated as follows at this time:
 - **\$44,958.75 to be expended from the MA NRD Trust Account # 2200-2676.** These funds were deposited into the MA NRD Trust Account pursuant to Paragraph 98f of the

Consent Decree for Massachusetts Trustee Oversight Costs.

CONCURRED IN by the following who are duly authorized:

**MASSACHUSETTS SUBCOUNCIL
of the
HOUSATONIC RIVER TRUSTEE COUNCIL**

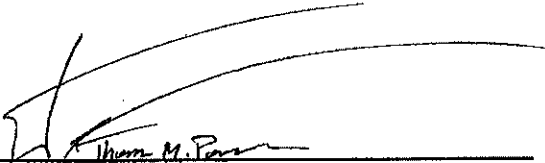
United States, et al., v. General Electric Company,
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RESOLUTION # 49
Authorize use of \$44,958.75 in Massachusetts Trustee Oversight funds

FOR THE COMMONWEALTH OF MASSACHUSETTS

12-19-2017

Date


Thomas Potter
MA SubCouncil Trustee Representative
Department of Environmental Protection
Bureau of Waste Site Cleanup
One Winter Street, 6th Floor
Boston, MA 02108

**MASSACHUSETTS SUBCOUNCIL
of the
HOUSATONIC RIVER TRUSTEE COUNCIL**

United States, et al., v. General Electric Company,
Civil Action Nos. 99-30225-MAP; 99-30226-MAP; and 99-30227-MAP (D. Mass.)

RESOLUTION # 48⁹
Authorize use of \$44,958.75 in Massachusetts Trustee Oversight funds

FOR THE U.S. DEPARTMENT OF THE INTERIOR

12/20/17
Date

Molly Spaduto
Molly Spaduto
MA SubCouncil Trustee Representative
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301

MA SubCouncil of the Housatonic River Natural Resource Trustees
GE-Pittsfield/Housatonic River Site¹ Consent Decree
Floodplain Forest and Palustrine Wetland Off-Site Restoration Area Identification,
Screening and Evaluation
SCOPE OF WORK – December 15, 2017

This following scope of work (SOW) was developed by the MassDEP Wetlands Program for the MA SubCouncil of the Housatonic River Natural Resource Trustees ("MA SubCouncil"). The MA SubCouncil voting members include MassDEP and the U.S. Fish and Wildlife Service, with MassDEP acting as the Lead Administrative Trustee (LAT).

Paragraph 118.e of the Consent Decree (CD) requires GE to *install and monitor a total of 12 acres, or the equivalent of 12 acres, of forested/wetland habitat, consisting of approximately 9.75 acres of floodplain forest habitat and approximately 2.25 acres of freshwater palustrine wetlands.* These acres must be located at an *off-site non-contaminated riparian area within the Housatonic River watershed outside the Site ("Off-Site Restoration Area") designated by the Trustees and mutually agreed upon with Settling Defendant [GE].* Technical Attachment I of the Statement of Work for Removal Actions Outside the River ("Attachment I to the Statement of Work") identifies additional Performance Standards and requirements that apply to the Off-Site Restoration Area.

The MA SubCouncil has asked the MassDEP Bureau of Water Resources Wetlands Program to develop a SOW to identify and recommend:

- 1) Appropriate sites for creation of floodplain forest and palustrine wetland habitat as described in the CD and Attachment I to the Statement of Work; and
- 2) Recommendations for design review, construction and post-construction monitoring, and measures for assessing success.

Recommendations developed by the MassDEP Wetlands Program must be consistent with the CD and Attachment I to the Statement of Work. Performance standards and monitoring requirements for these Natural Resource Restoration/Enhancement Activities are described in Sections 5, 7 and 8 of Attachment I to the Statement of Work.

MassDEP's Wetlands Program in Boston has been working for over a decade to monitor and assess wetland condition in accordance with Wetland Protection Act (WPA) regulations at 310 CMR 10.55 (including a major statewide study on wetland replacement) and to provide data on wetlands condition pursuant to Section 305(b) of the Clean Water Act for EPA's report to Congress. Additionally, MassDEP's

¹ Per the CD, "Site" or "GE-Pittsfield/Housatonic River Site" shall mean the GE Plant Area, the Former Oxbow Areas, the Allendale School Property, the Housatonic River Floodplain - Current Residential Properties, the Housatonic River Floodplain - Non-Residential Properties, the Silver Lake Area, the Upper ½ Mile Reach, the 1 1/2 Mile Reach, the Rest of the River, and other properties or areas to the extent that they are areas to which Waste Materials that originated at the GE Plant Area have migrated and which are being investigated or remediated pursuant to the Consent Decree. The Site shall not include properties on which Waste Materials have come to be located solely as a result of the placement of fill and which are not being investigated or remediated pursuant to this Consent Decree (including but not limited to the Designated Fill Properties and/or the properties addressed by the new State Administrative Consent Order described in Paragraph 11 (except as provided in the Statement Of Work with respect to East Street Area 1-South)).

Boston Wetlands Program has decades of experience supervising design, construction and post-construction monitoring and assessment of large wetland creation projects that are permitted in accordance with MA WPA Variance requirements at 310 CMR 10.05(10).

This SOW consists of six tasks: 1.) Landscape Level GIS-based Assessment (see example graphics attached – file name Housatonic North and Housatonic South); 2.) Parcel/Site Selection; 3.) Site Level Assessment; 4.) Site Level Ranking; 5.) Recommendations for Design Review, Monitoring and Assessment; 6.) Final Report. A discussion of each task, as well as a cost estimate and timeline for this work, is provided below.

Task 1: Landscape Level GIS-Based Assessment (LLA)

Under this task, the MassDEP Wetlands Program will conduct a Landscape Level GIS-Based Assessment to identify potential sites that have landscape features, location, and conservation status that appear suitable for creating floodplain forested habitat/freshwater palustrine wetland, and that meet the Performance Standards for the Off-Site Restoration Area (as described in the CD and Attachment I to the Statement of Work). All potential parcels/sites that are identified through this analysis will be summarized in a table and/or map for the MA SubCouncil. Information to be assessed will include, but not be limited to, the following:

Data Format / Source	Purpose of Data	Example of Data
GIS / MassGIS & MassDEP	Identify Disturbed and/or Cleared Sites	2013-2014 Color Orthophotos & MassDEP Wetland Change
GIS / MassDEP	Determine Current Land Use	MassDEP Wetlands & Land Use 2005
GIS / MassDEP, Avatar, Weston	Exclusion of Contaminated Sites ²	MassDEP 21E Classified Sites & Site Mapping (RAA, FPP, ROR)
GIS / NHESP & UMass	Identify Sensitive Ecological Areas to Investigate further	Natural Heritage Program Data & UMass CAPS Index of Ecological Integrity
GIS / MassGIS	Determine the Landscape Position, proximity to floodplain	LiDAR & USGS Topographic Maps, FEMA floodplain maps
GIS / MA SubCouncil	Assess Current Land Ownership and Conservation Status	Protected Open Space (Fee Acquisition, Conservation Restrictions, and Agricultural Preservation Restrictions) and Parcels Acquired with NRD Funding
Multiple Formats / MassDEP, MEPA Office & DER	Evaluate Similar Successful Projects	MassDEP Wetland Variance Wetland Creation Projects, MEPA Alternatives Analyses, MassDEP Permitting and Enforcement Cases, DER Restoration Projects

Task 2: Parcel/Site Screening

Using the information above and additional information deemed relevant, a site-selection screening matrix will be developed to identify sites for subsequent Site Level Assessment. Following MA

² To be provided to the MassDEP Wetlands Program by the MA SubCouncil.

SubCouncil review of the screening matrix, approximately 5-10 of the highest ranking sites will be identified as warranting site visits to gather additional information. A technical report detailing the findings and map for each site will be drafted to support the ground reconnaissance in Task 3. The MassDEP Wetlands Program will coordinate with the MA SubCouncil to secure landowner permission. The MA SubCouncil will be responsible for contacting landowners prior to site visits. Property owner permission will be required in order to access sites that do not currently allow for public access.

Task 3: Site Level Assessment (SLA)

Site visits for the 5-10 highest ranking sites identified in Tasks 1 and 2 will be coordinated with and include one or more members of the MA SubCouncil. Since each site has unique conditions, an assessment of the ecological condition and functional values present as well as an evaluation of strengths or constraints to successful creation of floodplain forested habitat/freshwater palustrine wetland will be investigated in the field. The objective of these assessments will be to confirm through field investigation if the sites contain the requisite characteristics in order to achieve the project’s goals, and if so, to assess whether there are may be legal or other constraints that would preclude such sites from meeting the requirements for Off-Site Restoration. Criteria that may be used to conduct the SLA will include but not be limited to:

Assessment Classification	Examples of Characteristics	Methodology
Hydrology	Proximity to Surface Water, Floodplain including those disconnected, Drainage, Landscape Setting, Depth to Seasonal Groundwater, Approximate Wetland Boundary	Field reconnaissance to confirm landscape setting, surface water and drainage features; soil pit(s) in representative area(s) to determine seasonal groundwater depths; meander survey to locate and verify wetland boundary using field GPS unit
Vegetation	Established Plant Communities, On-site and Neighboring Invasive Plants, Rare Species	Ocular estimate of dominant plant communities in field and mapping on aerial photo/field GPS unit; Plotless surveys will be used to identify and document any invasive species and/or rare species (major stands of invasive species and any rare species will also be located by GPS).
Soils	Profile, Texture, Hydric Indicators	At soil pit(s) described above, record the depth and texture of all horizons; record matrix color and color & depth of any redoximorphic features using the Munsell Soil Color Chart
Wildlife	Habitat, Index of Ecological Integrity, Landscape Context, Connectedness	Document features on Appendix A checklist from <i>MassDEP Wildlife Habitat Protection Guidance for Inland Wetlands</i>
Disturbances/ Human Alteration	Powerlines, Roads, Ditches, Culverts, Drainage	Review publicly available data, field verify, and document observed locations using aerial photo/field GPS unit
Connectivity/	Road Crossings, Dams, Proximity to	Review publicly available data, field

Fragmentation	Protected Lands	verify, and document observed locations using aerial photo/field GPS unit
Contaminants (Potential)	EEA Site Investigation Form	Coordinate with BWSC

Task 4: Site Ranking

A final site ranking protocol based on the LLA Site Selection Screening Matrix and SLA field investigation will be developed which will weight the characteristics described above (see table under Task 3) to score each site. The sites will be ranked in order from highest to lowest as it relates to potential for creation of habitat as described in the CD and Attachment I to the Statement of Work. All 5-10 sites where field investigations were conducted will be included in the final ranking. In the event that multiple finalists are close in rank, a more detailed site investigation may be conducted. This investigation may include sampling of forested vegetation based on a Site Level Assessment Method (SLAM) and Indices of Biological Integrity developed by the MassDEP Wetlands Program in collaboration with UMass-Amherst to better understand wetland conditions at each site. A draft of the site ranking protocol will be provided for MA SubCouncil review prior to being finalized.

Task 5: Recommendations for Design Review, Monitoring and Assessment

To support the MA SubCouncil’s oversight of installation and maintenance in compliance with Performance Standards for Off-Site Restoration and to inform the MA SubCouncil’s monitoring of similar restoration projects, a separate memorandum will be developed that includes recommendations for: 1) Design Submittal Reviews; 2) Construction Monitoring; 3) Post-Construction Monitoring, and 4) Timeframes and measures for assessing success and/or identifying contingency actions (e.g. documentation of vegetation, groundwater monitoring, etc.). Monitoring protocols from the MassDEP Wetlands Program recently completed study *Wetland Replacement in Massachusetts*³ will be used and/or updated for this evaluation. A Draft Memorandum will be provided for MA SubCouncil review prior to being finalized.

Task 6: Final Report

A Draft and Final report will summarize the results of Tasks 1 through 4, including the LLA and SLA results, and the site rankings and results. A draft and final separate memorandum will summarize the results of Task 5, providing recommendations for design review, monitoring, and assessment to the MA SubCouncil. A template will be developed that will allow this effort to be transferrable to similar restoration projects. MassDEP Wetlands Program staff will be made available to discuss the information developed.

Timeframe, Deliverables, and Cost

Task Description	Task #	Hours	Milestone Dates	Deliverables	Cost (\$31.55/hr)
Develop LLA Site Selection Screening Matrix, field investigation checklist and final site ranking protocol	2,3, 4	157.5	2/15/18	DRAFT FOR REVIEW: LLA Site Selection Screening Matrix, Site Ranking Protocol	\$4,969.13

³ Note this study is under internal review at MassDEP and has not yet been released.

MA Sub Council of the Housatonic River Natural Resource Trustees
 GE-Pittsfield/Housatonic River Site¹ Consent Decree - Off-Site Restoration Area Identification
 SCOPE OF WORK – December 13, 2017

Landscape Level GIS-Based Assessment (LLA)	1	232.5	3/1/18	Final LLA Site Selection Screening Matrix	\$7,335.38
Parcel/Site Screening	2	75	3/30/18	LLA Final Report,	\$2366.25
Site Level Assessment (SLA)Field Schedule	3	37.5	4/30/18	Final Site Ranking Protocol, Field Schedule	\$1183.13
Site Level Assessments (SLA) including Methodology and Field Visits	3	405	7/30/18	N/A	\$12,777.75
Site Ranking & Recommendation	4	225	9/15/18	N/A	\$7098.75
Recommendations for Design Review, Monitoring and Assessment	5	210	9/15/18	Draft Memorandum of Design Review, Monitoring and Assessment performance standards	\$6625.50
Final Report	6	82.5	9/30/18	Draft and final Report including Final Site Ranking and Final Site Selection Recommendations and Final Memorandum including recommendations for Design Review, Monitoring and Assessment	\$2602.88
Complete Project		1425	9/30/18	All Deliverables	\$44,958.75