

October 7, 2016
Project No. 1608870-***-1001



Consulting
Engineers and
Scientists

Mr. Kelly Boling, Project Manager
The Trust for Public Land
10 Milk Street, Suite 810
Boston, MA 02108

**RE: Cost Estimate for Voluntary Remediation Program Closure
Baumgarten Property – 123 Greenmanville Avenue, Mystic, Connecticut**

Dear Mr. Boling:

GEI Consultants, Inc. has prepared the following cost estimate documenting our opinion of cost associated with the closure of the Baumgarten Property located at 123 Greenmanville Avenue, Mystic, Connecticut (Site) under the Connecticut Volunteer Remediation Program. This cost estimate is based on our current estimation of the Site environmental conditions, knowledge of Connecticut regulations, and understanding of project goals.

The Volunteer Remediation Program pursuant to Connecticut General Statutes (CGS) Section 22a-133x is available to any person to facilitate the remediation of any contaminated property in Connecticut. This is an elective program regulated by the Connecticut Department of Energy and Environmental Protection (CT DEEP) which allows for the voluntary investigation and remediation of any contaminated property without a property transfer.

PROJECT BACKGROUND

The Site consists of a 1.5-acre parcel of land with two structures. The first structure is a two-story residential building with approximately 2,692-square foot gross living space. The second structure is a single-story detached garage with approximately 1,980 square feet of area. The structure is currently used for a training and storage area for crew and rowing activities.

The Site was originally much smaller in size but was enlarged to extend into the Mystic River. The fill material used to enhance the property boundary was likely coal and slag from the adjacent Velvet Mill. The Site has been used for residential and industrial purposes. The residential structure, which has remained, was built circa 1900 and is used for residential housing. The detached garage has been used for industrial and commercial purposes including coal storage, automobile storage, blacksmith shop, stonecutting, auto painting, and warehouse storage. The garage is currently used as a training facility for local crew and rowing teams.

The Conceptual Site Model (CSM) has been developed and revised through multiple investigations and environmental activities performed at the Site since 1994. Three Phase I Environmental Site Assessments (ESAs) have been performed, including one performed by GEI, finalized in October 2016. The current CSM presented by GEI in the Phase I ESA identified two remaining Areas of Concern (AOCs): 1) Site-wide fill and 2) Former Tunnel.

Closure of the Site under the Volunteer Remediation program requires that these AOCs are investigated for the presence or absence of a release, the nature and extent of the release is delineated, and remedial actions are performed to demonstrate conformance with current remedial standards.

Future remedial activities at the Site must address three soil Remediation Standard Regulation (RSR) criteria: 1) residential direct exposure criteria (RES DEC), 2) industrial commercial direct exposure criteria (I/C DEC), 3) and pollutant mobility criteria for GB areas.

DEC address risk exposure based on exposure to contaminated material by routes of ingestion, inhalation, or dermal absorption. Both RES DEC and I/C DEC standards are applicable unless an ELUR has been instituted for the Site restricting residential use.

Soil samples have been collected to characterize the Site-wide fill. Over fifteen soil samples have been analyzed at depths ranging from the surface to fifteen feet below grade. These soil samples were analyzed for volatile organic compounds (VOCs), metals, polycyclic aromatic hydrocarbons (PAHs), and petroleum hydrocarbons.

Five samples, collected within the upper six feet below grade, contained detections of petroleum hydrocarbons, PAHs, arsenic or lead above RES DEC. One sample, analyzed for arsenic, exceeded both the RES and I/C DEC regulatory standards. Soil descriptions confirmed the presence of coal ash and cinders throughout the Site – indicative of polluted fill. Therefore, this cost estimate assumes a release has occurred from the historical placement of polluted fill across the Site, however, previous sampling have suggested a heterogeneous distribution of impacts.

A release determination related to the former tunnel has not been adequately demonstrated. In fact, the location of the former tunnel was not observed during the most recent Phase I ESA. Constituents of concern related to the former tunnel are similar to the Site-wide fill, namely, petroleum and PAHs. For the purpose of this cost estimate, additional costs have been included for further investigation of this AOC. However, any release identified from this feature would be comingled with the Site-wide polluted fill and not easily

differentiated. As such, the costs presented for remediation address the Site-wide fill in addition to potential impacts from the former tunnel.

The GB pollutant mobility criteria (PMC) criteria provide a threshold concentration of a constituent above which concentrations could theoretically leach out and impact groundwater in a GB-classified area. However, the PMC does not apply to polluted fill on a parcel if such fill is polluted only with coal ash, wood ash, coal fragments, asphalt paving fragments, or any combination thereof. Demonstrating compliance with this exemption under the Voluntary Program is straightforward. As such, our remedial approach and cost did not include additional considerations beyond demonstrating the applicability of the coal ash-exemption.

Applicable groundwater criteria under the Connecticut RSRs for “GB” areas, such as this Site, includes the Surface Water Protection (SWPC), Residential Groundwater Volatilization Criteria (RES GWVC) and Industrial/Commercial Groundwater Volatilization Criteria (I/C GWVC).

The SWPC stipulates that the average concentration of contaminants within a groundwater plume, which discharges to a surface water body, or the concentration of contaminants within the portion of the plume immediately upgradient of the surface water body, must be lower than the SWPC for that specific constituent.

The GWVC were developed to address the potential for VOCs volatilized from groundwater to migrate through the unsaturated zone to the ambient air at concentrations that would pose an unacceptable risk to occupants in a building

Limited groundwater sampling has been performed to characterize the Site. Five temporary monitoring wells were previously installed at the Site. These wells indicated groundwater depths at approximately nine feet below grade near the eastern extent of the Site and four feet towards the western portion adjacent to the Mystic River. Groundwater samples were analyzed for VOCs, metals, PAHs, and petroleum hydrocarbons.

None of the historical groundwater samples contained constituents above either the SWPC or VC. Additional groundwater sampling, including the use of permanently installed monitoring wells, will be required to demonstrate compliance with these standards. Our cost estimate assumes that exceedances of the groundwater standards will not occur based on the previous groundwater data.

VOLUNTARY REMEDIATION PROGRAM CLOSURE APPROACH

The closure approach and associated cost estimate is based on tasks identified to investigate, remediate, and perform the appropriate regulatory documentation to achieve Site closure under the Volunteer Program. Table 1 provides a summary of these tasks and anticipated costs.

Task No. 1. Entrance into Voluntary Remediation Program

The activities detailed in the following task are required for entrance into the Voluntary Remediation Program.

1A. Environmental Conditions Assessment Form (ECAF)

Under the Voluntary Remediation Program, an ECAF can be prepared by any person under the supervision of a Licensed Environmental Professional (LEP) and submitted to the CT DEEP with a filing fee. The ECAF document is a form prescribed by the CT DEEP and documents environmental conditions of a Site (Attachment A). The form is used by the CT DEEP to determine whether an LEP or the CT DEEP led-site investigation, remediation, and closure activities.

In making a determination whether an LEP may verify the investigation and remediation of the Site the CT DEEP considers 1) the potential risk to human health and environment posed by a release; 2) the degree of environmental investigation at the Site; 3) the proximity of the Site to significant natural resources; 4) the land uses surrounding the Site; 5) the complexity of the environmental conditions of the Site; and 6) any other factor the Commissioner deems relevant. It is highly likely that the CT DEEP would designate the Site as an LEP-led Site and we have assumed this designation for this cost proposal.

We have included a cost of \$2,500 which is consistent with current industry costs to prepare and submit an ECAF.

1B. Initial Permit Fee for CT DEEP

The submission of an ECAF must be accompanied by a required review fee for entry into the voluntary remediation program. This cost estimate includes the current review fee of \$3,250.

1C. Schedule Letter to CT DEEP

Within 90 days of the submittal of the ECAF and filing fee, the applicant must submit a schedule for implementation of investigation and remediation activities.

This submittal must provide the name of the LEP that will be retained to oversee investigation and remediation activities at the parcel. The schedule submitted to DEEP should provide the following:

- Submittal to DEEP of the investigation report(s) and remedial action plan(s) upon completion of such documents;
- Public notice of remedial action prior to commencement of remedial action, pursuant to CGS section 22a-133x(g);
- Submittal to DEEP of a copy of the public notice immediately following publication of such notice; and
- Submittal of the LEP's verification on a form prescribed by the Commissioner following completion of remediation.

No project costs are associated with this task given the modest level of effort required to prepare this letter.

Task No. 2. Site Investigation

The activities detailed in the following task represent our professional judgement of the requirements to complete the investigation sufficient to submit a completion of investigation form and report as required under the Voluntary Remediation Program. These activities are based on GEI's CSM and review of previous investigations at the Site. These activities are consistent with the CT DEEP's *Site Characterization Guidance Document*, Revised December 2010.

2A. Conduct Phase II/III ESA and Report

A Phase II/III ESA scope has been developed to address three identified data quality objectives and refine the CSM:

- Further characterize the nature and extent of the fill material.
- Assess the presence or absence of a release associated with the former tunnel.
- Characterize groundwater quality.

We have assumed three days of drilling and one day of groundwater sampling as part of the scope of work. Drilling activities will include the advancement of 11 borings. Four of the borings will be placed near the Site boundary with the Mystic River. These samples will characterize the nature and extent of fill material at the furthest downgradient location and inform the placement of the engineered cap (Task 3B). Four additional borings will be installed in the center of the Site to provide additional characterization of the fill material in the center of the Site. The remaining three borings will be installed along the approximate location of the former tunnel. These borings will assess the presence of the

former tunnel and if present, whether a release from this feature has occurred. The soil samples will be analyzed for PAHs, RSR-15 metals¹, and petroleum hydrocarbons.

Four permanent monitoring wells are proposed to assess Site groundwater quality. Three of the monitoring wells will be placed at downgradient locations to assess groundwater quality at the Site boundary with the Mystic River. The fourth monitoring well would be installed at an upgradient location adjacent to Greenmanville Avenue. The purpose of this well is to assess any potential off-Site impacts from the upgradient former Velvet mill or other potential off-site source. The placement of these wells should be in locations not affected by the proposed Site capping. These monitoring well locations will allow the monitoring wells to be sampled as part of post-remediation groundwater sampling following the placement of the cap. The cost estimate includes development of the wells and one round of groundwater sampling for PAHs, RSR-15 metals, and petroleum hydrocarbons.

A Phase II/III ESA report has budgeted in the cost estimate. The report would the analytical findings, boring logs, and refined CSM. Table 2 provided a detailed breakdown of estimated costs associated with the Phase II/III investigation and reporting.

2B. Conduct Scoping-Level Ecological Assessment

A scoping level ecological assessment has been included in the project costs. Although not required by regulation, it is our professional judgement that the CT DEEP will request this assessment to deem the investigation complete. The CT DEEP's Site Characterization Guidance Document states that the agency, "strongly recommends that potential ecological exposure pathways, where contaminants could affect aquatic and terrestrial life, as identified in the CSM, are evaluated". As such, a scoping-level ecological assessment has been included to assess an evaluation of potential ecological risks due to site related activities.

The process encompasses the following steps:

- Review of Existing Data: Review of information collected during previous investigations including site history, land/water uses and classification, known/suspected chemical releases, and potentially affected media.
- Review of Ecological Information: Identification of ecological resources/habitat in the vicinity of the Site, determination of species potentially present including threatened or endangered species of concern, and site visit observations.
- Scoping Level Decision: Assess if further investigation by a screening-level ecological assessment is recommended for the Site.

¹ RSR 15-metals include antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury,

The Scoping -Level ERA requires review of publically available information and correspondence (if required) with the United States Fish and Wildlife Service (USFWS), CT DEEP, and other regulatory agencies. In addition, a Site visit is anticipated to identify natural resources, observe impacts to Site soils and resource, and describe the value off the fish and wildlife at the Site. The report will assess if further ecological investigation via a Screening-Level ERA is warranted. Based on our current understanding of environmental conditions, we are assuming a Screening Level ERA will not be required for the Site.

We have included a cost of \$3,500 which is consistent with current industry costs and previous similar projects to prepare this assessment.

2C. Completion of Investigation Transmittal Letter and Report

Within the timeframe established in the schedule letter (Task 1C) documentation must be provided to the Commissioner that the investigation of the Site has been completed in accordance with prevailing standards and guidelines. A final site investigation report must be submitted under cover of the CT DEEPs Completion of Investigation Transmittal Form (Attachment B). The report should include the following components:

- Summary of Site investigations and findings.
- Description of Site setting.
- Presentation of a CSM which documents the presence or absence of a release at identified AOC.
- Characterization of the nature and extent of AOCs with identified releases.
- Identification of ecological receptors.
- Potable well survey or assessment

The Completion of Investigation Transmittal letter must be prepared and certified by a LEP. The cost estimate includes an estimate of \$3,500 which is consistent with costs on similar projects to prepare and submit this report for CT DEEP review.

Task No. 3. Remedial Activities

3A. Prepare and Submit Remedial Action Plan

The submission of a remedial action plan is a requirement under the Voluntary Remediation Program prior to initiation of remedial activities. The proposed remedial action plan, discussed in the task below, is assumed to be limited to the installation of an engineered variance and additional groundwater monitoring. As such, the remedial action plan is assumed be limited in scope. The CTDEEP may review and advise such owner as to the adequacy of such remediation plan. This cost estimate assumes that no CT DEEP comments will be provided.

The remedial action plan must be accompanied by a Remedial Action Transmittal Form which must be prepared and certified by a LEP (Attachment C). The following components should be included within the remedial action plan:

- Summary of Site investigations and findings
- Description of the nature and extent of contamination of the areas subject to the engineered control.
- Compliance of proposed remedial options to current and proposed on-site and off-site land uses.
- Failure of the engineered control would not pose an unacceptable short-term risk to human health or the environment.
- Long-term fiscal and operational maintenance requirements.
- Engineered control has been approved by the CT DEEP in the past.

Permits required for the proposed remedial action must be obtained prior to the commencement of the remedial action plan. This cost estimate assumed no state or local permitting will be required during implementation of the remedial measure.

Public notice is required prior to the initiation of any remedial action. This notification must be made to the adjacent property owners and the general public regarding proposed remedial activities. To achieve this notification, a public notice published in a local newspaper; written notification to the local director of health; and the installation of a 4 foot by 6 foot sign on the Site.

The cost estimate includes an estimate of \$5,000, which is consistent with costs on similar projects to prepare and submit this plan for CT DEEP review.

3B. Implement Remedial Opinion with Engineered Variance

The current Site understanding includes one AOC, Site-wide fill, which has been identified as a release and is the subject of the remedial measures. As mentioned previously, the second AOC, former tunnel, would also be addressed through the Site-wide fill remedial activities. The constituents of concern include of metals (lead and arsenic), PAHs and petroleum hydrocarbons. Several of the soil samples detected these compounds in excess of direct exposure standards. Depths of these exceedances ranged from just below the surface to six feet below grade. This distribution is consistent with Site understanding that the nearly the entire Site was filled at depths exceeding ten feet below grade. As such, nearly the entire Site is considered a release area with likely exceedance at various locations and depths based on the components within the historical fill.

This type of release and distribution of exceedance limits the type of available remedial options. If the Site enters the Volunteer program closure will require that the entire Site is in compliance with the RSRs. Therefore, some form of remediation or institutional control is required.

Excavation was considered as a remedial option. However, the extent of the soil removal, nearly the entire Site at depths exceeding six feet, would be cost prohibitive. In addition, excavation would require the collection of confirmation samples. It is likely that a demarcation of clean areas is not present at the Site for confirmation sampling. The CT DEEP remedial standard standards allow soils exceeding the direct exposure criteria to be rendered inaccessible and therefore comply with regulatory standards. "Inaccessible soil" is defined as polluted soil which is more than four feet below the ground surface or polluted fill below an impervious surface and meet additional required concentrations. These amendments are self-implementing, rather than requiring Commissioner's approval for use. However, an ELUR is required to ensure that these impervious structures (including buildings) remain undisturbed. The selected remedial approach includes defining the soils existing underneath the existing residential structure and detached garage (estimated at 56,653 square feet) as inaccessible and instituting an ELUR. The costs associated with this remedial approach are incorporated in Task 5 for the institution of an ELUR.

The remainder of the Site, however, currently contains accessible soil. Rendering this soil inaccessible, through placement of a paved parking area, is a remedial option. However, this option would require extensive site grading which would increase costs. Furthermore, the increase in pervious cover would increase the volume of storm water, which may not be allowable by local zoning regulations. Finally, this remedial option may not be consistent with current residential use of the Site.

The selected remedial option for the remainder of the Site was an Engineered Control Variance. The clean soil cover is considered an engineered control under the RSRs and as such, CT DEEP approval of the clean soil cover is required. The proposed clean soil cover will consist of 1 foot of clean soil that is vegetated and underlain by a geotextile. The clean soil layer will include 4-inches of topsoil and 8-inches of granular fill.

The topsoil will meet the Connecticut Department of Transportation specification M.13.01 and the granular fill will meet specification M.02.01. Analytical results will demonstrate that the granular fill and topsoil also do contain any substances at concentrations above the RDEC or GB PMC. The geotextile will be placed above the existing soil and below the clean soil cover. The geotextile proposed is an orange-colored, medium-weight, pervious geotextile (Mirafi 140NL/O or equal). It will provide an additional barrier to prevent direct

contact with the impacted soil and will also demarcate the interface between the clean soil cover and impacted soil.

The engineered control is proposed to cover a 51,368 square-foot area (Table 3). The control is proposed to extend within five feet of the eastern Site boundary– the mean high tide line. The engineered control will be sloped down from the one-foot additional elevation to the original grade. Depending on the results of the Phase II/III ESA, spot excavation may be required within the buffered area to provide a clean demarcation line between the Site boundary and the engineered control. These costs, if necessary, will be covered within the 20 percent contingency added to the overall project costs.

Along the western Site boundary and Greenmanville Avenue, we have specified a clean corridor for utilities. The utility trench in the corridor will be backfilled with clean-imported material or suitable on-site material. A geotextile fabric (Mirafi 140NL/O or equal) will be placed under the clean backfill along the bottom and sides of the utility trenches.

Engineered controls comprised of 1-foot of soil with a vegetated surface over a demarcation layer have been approved by CT DEEP for use at several, at least seven, sites including at least one residential site. The control proposed will physically isolate the impacted soil, and therefore, meets CT DEEP guidance and the RSR requirements. Both the soil layer and geotextile are common and proven engineering practices, which will be easy to implement and provide a durable barrier. The geotextile proposed is a medium weight geotextile and will be more effective than the simple warning layer proposed for use at other sites because it will also provide a barrier to prevent direct contact. The engineered control proposed is consistent with other engineered controls approved by CT DEEP.

The purpose of the engineered control is to prevent direct contact by persons to contaminated soil. The combination of the soil layer and geotextile will prevent direct contact. Digging through the one-foot of soil and geotextile by residences is not expected to occur and any construction or maintenance workers will be properly trained so that they know that the engineered control cannot be disturbed. The cover is consistent with the use of the Site for current residential use.

Positive grading will be required to prevent any ponding and the grading is not steep so as to subject the cover to erosion. Settlement is not anticipated because the subgrade will be properly compacted and there are no known degradable materials in the fill, which could cause subsidence or settlement. These costs have been included under the construction activities provided in Table 3.

The cover will require little maintenance and, since it is constructed primarily of earthen materials, it will last indefinitely. Maintenance will include mowing and reestablishment of any dead vegetation. Any significant erosion is unlikely; however, maintenance will also include replacing any eroded materials and reestablishment of the vegetation.

Monitoring and maintenance will be required to ensure the effectiveness of the engineered control. The EC condition will be monitored during routine inspections, properly maintained and repaired as necessary. Maintenance and repair activities will be minimal because the ground cover planned for the area is low maintenance. In addition, annual reports will be submitted to CT DEEP to document that the EC has been properly maintained.

The use of engineered controls requires CT DEEP approval. Four forms must be submitted when applying for an Engineered Control Variance.

- Approval Request or Notice Transmittal Form
- Engineered Control Application Form, Part 1
- Engineered Control Application Form, Part 2
- Public Notice Verification Form

Table 3 includes cost associated with developing these documents for approval by the CT DEEP.

To ensure proper maintenance of the engineered control financial assurance will need to be established. An irrevocable standby letter of credit meeting the requirements in 40 CFR 264.151 will be required. The costs associated with establishing financial assurance has not been included as part of this cost estimation.

Task No. 4. Post-Remediation/Compliance Groundwater Monitoring Evaluation

Groundwater quality, in particular groundwater quality leaving the Site, is required to demonstrating compliance with groundwater remediation standards and achieve Site closure. Following the proposed implementation of the engineered variance, four consecutive quarters will be required to demonstrate compliance with the groundwater standards.

Our cost estimate includes sampling the groundwater from the four proposed wells installed during the Phase II/III ESA. The costs include sampling for VOCs, RSR-15 metals, PAHs, and petroleum hydrocarbons.

We have included a cost of \$5,000 per event based on the following breakdown of anticipated costs:

- \$2,000 for laboratory costs.
- \$500 for sampling expenses and travel time.
- \$2,500 for field labor costs and data management.

The total costs for four rounds of groundwater sampling is \$20,000. We have not included reporting costs since the groundwater sampling results will be incorporated into the verification report.

Task No. 5. Verification

5A. Establish an Environmental Land Use Restriction (ELUR)

The engineered variance, the selected remedial option, will require an ELUR to be recorded prior to submission of LEP verification. The ELUR will require that the inaccessible soil will not be excavated or disturbed and the overlying buildings will not be removed unless the ELUR is released.

The ELUR application will be submitted by the LEP following the post remediation/compliance groundwater monitoring evaluation has been completed and following a public comment period. The document will be submitted to the CT DEEP for review and approval and will include the following components.

- Public notice certification and comments.
- Signature of responsibility and ownership.
- Subordination agreements.
- Nature and extent of pollutants remaining on the Site.
- Prohibited activities or land uses.

GEI suggests that a qualified attorney who is familiar with the environmental laws in the State of Connecticut be retained to assist in the preparation of the ELUR.

Upon approval by the CT DEEP, the LEP will finalize the document for recording on the land title.

We have included a cost of \$30,000 which includes the following breakdown of anticipated costs:

- \$10,000 for legal fees associated with preparation of ELUR declarations.
- \$7,500 for survey fees associated with A-2 survey.
- \$2,500 for title search.
- \$10,000 for preparation and submission of the ELUR to CT DEEP and municipality.

5B. LEP Report and Verification of Remedial Activities

A verification report is required be submitted presenting the necessary documentation to support the rendering of a LEP-verification.

The report will include the following components:

- Demonstration of Compliance with the Remediation Standard Regulations Checklist.
- Presentation of the Final CSM.
- Discussion of receptor assessments.
- Description of all means and methods used to demonstrate compliance in accordance with the remedial standards.
- Documentation of ELURs.
- Discussion of engineered controls established to comply with remedial standards.

We have included a cost of \$3,500 which is consistent with current industry costs to prepare and submit a verification report.

Assumptions

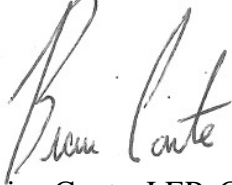
The following assumptions were made during the preparation of this proposal:

- The cost estimates presented are based largely on previous analytical data not generated by GEI and we assume that the data is accurate as reported.
- This cost estimate includes the activities required to be performed for an LEP-verification. The proposal does not consider any additional activities required by the CT DEEP, if any, following submission of the verification report (e.g. responses to verification audit).

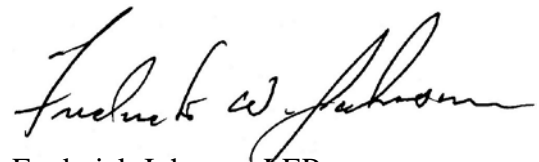
- Submission of the ECAF will require the CT DEEP to determine if the Site will proceed under an LEP or CT DEEP lead. We assume the Site will be deemed a LEP-lead site. If it is a CT DEEP-lead Site, additional out of scope costs could be incurred for meetings and additional communications with CT DEEP.
- This proposal does not include any costs associated with legal, permit, or application fees.
- The costs associated with establishing financial assurance has not been included as part of this cost estimation.

Sincerely,

GEI Consultants, Inc.



Brian Conte, LEP, CHMM
Project Manager



Frederick Johnson, LEP
Senior Vice President

Enclosures:

Table 1 – Summary of Cost Estimate for Remediation under the Voluntary Remediation Program

Table 2 – Cost Estimate for Investigations under the Voluntary Remediation Program

Table 3 – Cost Estimate for Remediation under the Voluntary Remediation Program

Attachment A – Environmental Conditions Assessment Form

Attachment B – Completion of Investigation Transmittal Form

Attachment C – Remedial Action Transmittal Form

TABLES

Table 1. Summary of Cost Estimate for Remediation under the Voluntary Remediation Program
The Trust for Public Land
Baumgarten Property
123 Greenmanville Ave., Mystic, CT

Activity	Item	Unit Costs	Proposed Schedule (from VRP filing)
Entrance into Voluntary Remediation Program	Prepare ECAF for submittal to CT DEEP	\$2,500	Performed within first 6 months.
	Initial Permit Fee for CT DEEP (one-time expense)	\$3,250	
	Provide designation of LEP and schedule to CT DEEP ¹	\$0	
Conduct Site Investigation	Conduct Phase II/III Env. Site Investigation and Report	\$20,437	Performed in Year 1.
	Conduct Scoping Level Ecological Assessment	\$3,500	
	Completion of Investigation Report	\$3,500	
Remedial Activities	Prepare and Submit Remedial Action Plan	\$5,000	Performed in Year 2.
	Implement Remedial Option with Engineered Variance ²	\$88,899	
Post-Remediation/Compliance Groundwater Monitoring Evaluation	Monitor Groundwater for 4 quarters (5 wells)	\$20,000	Performed in Year 3.
Verification	LEP Report and Verification of Remedial Activities	\$15,000	Performed in Year 4.
	Establish an Environmental Land Use Restriction	\$15,000	

Sub-Total \$177,086
20% Contingency \$212,503

Notes:

- 1 - Assumes CT DEEP designates Site as LEP-led.
- 2 - Does not include the cost associated with posting of financial assurance.

Table 2. Cost Estimate for Investigations under the Voluntary Remediation Program
The Trust for Public Land
Baumgarten Property
123 Greenmanville Ave., Mystic, CT

GEI Direct Labor						
Title	GRADE VIII	GRADE V	GRADE II	DRAFTER3	WORD PROC.	TOTAL
Rate per hour	\$225	\$148	\$102	\$112	\$82	HOURS
Field Effort		1	30			31
Reporting	2	16	5	4	6	33
Total Hours	2	17	35	4	6	64
Total Cost	\$450.00	\$2,516.00	\$3,570.00	\$448.00	\$492.00	\$7,476.00
Subcontracting and Additional Project Expense						
Description	Quantity	Unit	Unit Cost	Subtotal		
Drilling Services						
Mob/demob	1	day	\$100.00	\$100.00		
Liners	10	each	\$8.00	\$80.00		
Drill Rig	3	day	\$1,750.00	\$5,250.00		
Wells	4	each	\$350.00	\$1,400.00		
				Total Cost	\$6,830.00	
Analytical Services						
SVOC	15	each	\$135.00	\$2,025.00		
Total Metals	15	each	\$123.50	\$1,852.50		
TPH	15	each	\$45.00	\$675.00		
				Total Cost	\$4,552.50	
GEI Direct Expense						
Equipment Rental	1	Lump Sum	\$150.00	\$150.00		
Field Supplies	1	Lump Sum	\$150.00	\$150.00		
Mileage	200	Per Mile	\$0.51	\$101.00		
				Total Cost	\$401.00	
					Subtotal	\$11,783.50
					10% Markup	\$12,961.85

GEI Direct Labor	\$7,476.00
Subcontracting and Additional Project Expense	\$12,961.85
Total	\$20,437.85

Table 3. Cost Estimate for Remediation under the Voluntary Remediation Program
The Trust for Public Land
Baumgarten Property
123 Greenmanville Ave., Mystic, CT

Cost Estimation Dimensions		Area		Volume	
Description	Square foot	Square yard	Cubic Yard (1-foot deep)	Cubic Yard (8-inch deep)	Cubic Yard (4-inch deep)
Area to be capped with Building Footprints ¹	56,653	2,098	--	--	--
Existing Building Footprint ¹	5,285	196	--	--	--
Capped Area ¹	51,368	1,903	1,903	1,269	634

Remedial Option			
Description	Unit Cost	Unit	Subtotal
Seed and Mulch over Capped Area	\$0.25	Square yard	\$475.63
Placement of 4-inches of Top Soil in Capped Area	\$20.00	Cubic yard	\$12,670.77
Placement of 8-inches of Clean Fill in Capped Area	\$13.00	Cubic yard	\$16,496.74
Cost for Geotextile liner placed below Clean Fill	\$2.50	Square yard	\$4,756.30
Construction activities to install cap	\$7,500.00	Single event	\$7,500.00
Annual Inspection, Maintenance, and Reporting ^{2, 3}	\$2,500.00	Present Value per year	\$37,000.00
Permitting and Approval of Engineered Control	\$10,000.00	Single event	\$10,000.00
Total			\$88,899.44

Notes:

- 1 - Dimensions calculated using 2016 Aerial Photograph and Geographic Information Systems (GIS)
- 2 - Present Value Calculation based on 20-years reduced by a factor of 0.7 to account for future inflation
- 3 - Does not include the cost associated with posting of financial assurance.

ATTACHMENT A

Environmental Conditions Assessment Form



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER PROTECTION AND LAND REUSE
REMEDIAL DIVISION
79 ELM STREET, HARTFORD, CT 06106-5127
(860) 424-3705 www.ct.gov/deep/remediation

ENVIRONMENTAL CONDITION ASSESSMENT FORM (ECAAF)

This form must be certified by the responsible party, owner, or certifying party, as applicable. This certification attests that the information contained in the ECAAF is correct and accurate to the best of such party's knowledge. For detailed directions on completing each part of the ECAAF, refer to the instructions. The ECAAF is to be a stand-alone document; do not reference attachments, with the exceptions of maps and receptor surveys.

Check the box to indicate the program for which this form is being submitted:

- ☐ Connecticut General Statutes (CGS) section 22a-134a(a)-(e),
Property Transfer filing
- ☐ CGS section 22a-133x, Voluntary Remediation
- ☐ Other (specify)

ECAAF submitted for ☐ Entire Property or ☐ Release Area

DEEP USE ONLY
Date and File Room Stamp

RemID#:

Part I: Site Identification

1. Name of Site:

Street Address:

City/Town:

State:

Zip Code:

-

2. Description in Property Deed:

Recorded on page in volume of the Town of land records, as lot ,

block , on map in the Tax Assessor's Office.

3. Site Details: Total Acreage:

Latitude & Longitude (Decimal Degrees):

Acres Undeveloped:

Building Footprint Square Footage:

4. Provide a location map that is based on a USGS quadrangle and shows the location of the site.

5. Include a site plan(s) with current and historical structures and boundaries, hazardous waste and solid waste management areas, areas of operation, areas of concern, release areas, UST and AST locations, septic systems, water supply wells, monitoring wells, groundwater flow direction, limits of groundwater plume, sampling locations, and extent of remediation, if known.

Site Address:

Part II: Contact Information

1. Business/person submitting this form:

Business Name:

Authorized Representative:

Title:

E-mail Address:

Mailing Address:

City/Town:

State:

Zip Code: -

Business Phone: - -

Ext.

Fax: - -

2. Person who will serve as primary technical contact:

Primary Contact:

Firm Name:

E-mail Address:

Mailing Address:

City/Town:

State:

Zip Code: -

Business Phone: - -

Ext.

Fax: - -

3. Owner of the parcel:

Name:

E-mail Address:

Mailing Address:

City/Town:

State:

Zip Code: -

Business Phone: - -

Ext.

Fax: - -

Site Address:

Part III: Documentation

List the documentation on which the information submitted on this form is based. Do not reference attached documentation in lieu of completing this form.

[illegible]

Site Address:

Part IV: Site History

1. DEEP Program Involvement:

Previous Filings

Type	Date	LEP / DEEP Oversight

Verifications

Type	Date	Status

Significant Environmental Hazard (SEH) Notification

Notification Date	Resolution Date

Enforcement Action by EPA: ☐ Yes ☐ No / Enforcement Action by DEEP: ☐ Yes ☐ No

[List Action(s) issued by EPA/DEEP in table.]

Number	Type	Date	Responsible Party	Status

Other DEEP involvement: ☐ Yes ☐ No. [Briefly describe, including timeframes (limit 300 characters)]:

2. Current and historical RCRA notifier status:

Notifier Status	Time Period	Permit Status

Site Address:

Part IV: Site History (continued)

3. Releases of petroleum or chemicals reported to DEEP: ☐ Yes (list details below) ☐ No

Location	Date Reported	Material and Quantity Released

4. Briefly summarize the current and historical industrial and/or commercial use(s) of the site, including dates (limit 1,200 characters):

5. Briefly summarize the hazardous substances and petroleum products presently or formerly handled at the site, including materials, volumes / quantities, and management methods (limit 1,200 characters):

Site Address:

Part V: Environmental Assessment

1. Phases of environmental investigation / remediation completed to date (provide dates):
Investigation conducted: Phase 1 Phase 2 Phase 3
Remedial design (RAP) Public Notice
Remediation initiated (first unit) Remediation completed (last unit)
Post-remedial monitoring initiated Natural attenuation monitoring initiated
2. Soil Investigation: How many soil samples were analyzed versus the number of samples where pollution was detected? Shallow soil / Soil >2 feet deep /
3. Soil Vapor Investigation: How many soil vapor samples were analyzed versus the number of samples where pollution was detected? Soil vapor /
4. Sediment Investigation: ☐ Completed (☐ Impact ☐ No impact)
☐ Pending ☐ Unknown if needed ☐ None
5. Groundwater Investigation:
How many sampling points/monitoring wells were used to investigate the groundwater?
Number of overburden wells Number of bedrock wells
Is there a plume on-site? ☐ Yes ☐ No
Is the three-dimensional extent of each ground-water plume resulting from releases at the site fully delineated? ☐ Yes ☐ No
Extent of plume distribution:
Overburden: ☐ On-site ☐ Off-site ☐ NAPL ☐ unknown
Bedrock: ☐ On-site ☐ Off-site ☐ NAPL ☐ unknown
Potential: ☐ On-site ☐ Off-site ☐ NAPL ☐ unknown
How many rounds of sampling have been conducted?
6. Surface Water Investigation: ☐ Completed (☐ Impact ☐ No impact)
☐ Pending ☐ Unknown if needed ☐ None
7. Data gap evaluation: ☐ Completed ☐ Pending
Data gaps remaining: ☐ Significant ☐ Insignificant ☐ None
Briefly describe work remaining to be conducted (limit 500 characters).

Site Address:

Part VI: Environmental Setting – Physical

1. Geologic and Hydrogeologic Summary:

Overburden Material:

Depth to Water Table:

Bedrock Type:

Depth to Bedrock:

Is the seasonal low water table below the elevation of the bedrock surface? ☐ Yes ☐ No

Horizontal Groundwater Flow Direction:

Vertical Groundwater Flow Direction:

Groundwater Flow Rate:

Hydraulic Conductivity:

2. Surface Water:

Identify the nearest downgradient surface water body:

Distance to surface water:

Wetland permit ID number:

Surface water classification:

3. Ecological Considerations (check all that apply):

Further Assessment Needed: ☐ Yes ☐ No

Ecological Risk Assessment Completed: ☐ Yes (Date) ☐ No

Site Address:

Part VII: Environmental Setting – Cultural

1.a. Surrounding Land Uses (check all that apply):

☐ Industrial ☐ Commercial ☐ Residential ☐ Agricultural

b. Sensitive Surrounding Land Uses (check all that apply):

☐ Residential ☐ Healthcare Facility ☐ School ☐ Childcare Facility
☐ NDDDB site ☐ Sensitive Water Resources ☐ Recreational

2. Sensitive On-site Land Uses (check all that apply):

☐ Residential ☐ Healthcare Facility ☐ School ☐ Childcare Facility
☐ NDDDB site ☐ Sensitive Water Resources ☐ Recreational

3. Groundwater:

Groundwater classification: ☐ GAA ☐ GA ☐ GB

On-site groundwater use: ☐ drinking water ☐ agricultural ☐ industrial

Distance from the site to the nearest off-site water supply well and the address of the property on which that well is located:

Is the on-site water supply well a public water supply regulated by DPH? ☐ Yes ☐ No

Is the site within the zone of contribution to a public water supply well? ☐ Yes ☐ No

Is the site within an Aquifer Protection Area? ☐ Level A ☐ Level B ☐ No

4. Public Utilities:

Is public water provided to the site? ☐ Yes ☐ No

Is public water available to all developed areas surrounding the site? ☐ Yes ☐ No

Are or have on-site drinking water wells been used at the site? ☐ Yes ☐ No

If yes, dates in use:

Is the site connected to municipal sewers? ☐ Yes ☐ No

Have on-site septic systems been used at the site? ☐ Yes ☐ No

If yes, dates in use:

5. Potential Exposure Pathways:

Receptor Type	Yes	No	Unknown	Date SEH Abated
Public Well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Private Well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Aquifer Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Direct Exposure (soil)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vapor Intrusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sediment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Surface Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Site Address:

Part VII: Environmental Setting – Cultural (continued)

6. Receptor Surveys (attach copy of survey):

☐ Potable well receptor survey (radius in feet: ☐ 500 ☐ 1,000 ☐ >1,000)

☐ Vapor intrusion pathway survey (location: ☐ on-site ☐ off-site)

☐ Surface water receptor survey (proximity to water body in feet: ☐ <500 ☐ <1,000 ☐ >1,000)

Note:

If information in Part VII.1. through 5. (description of environmental setting) is not complete at the time of this ECAF, the DEEP is more likely to maintain oversight because of the potential for risk to receptors.

If information in Part VII.1. through 5. is complete and there is a conceptual site model that indicates the potential for off-site migration of contaminants, a comprehensive receptor survey(s) is also warranted. Attach a copy of the receptor survey(s) to the ECAF. If a receptor survey(s) has not been completed at the time of this ECAF, the DEEP is more likely to maintain oversight because of the potential for risk to receptors.

Site Address:

Part VIII: Contaminants in the Environment

List all AOCs and number of releases detected, including the material and quantities released. For the soil category, list the maximum concentrations of contaminants that reflect **current** site conditions (e.g., concentrations of contaminants in soil remaining after remediation). For groundwater, list **both** the maximum historic **and** maximum current contaminant concentrations. Refer to the examples below and the instructions. See Table 1 in the instructions for contaminant codes. Use the space provided, following the example below. If the space provided on one line is not sufficient, use the line below it to provide additional information.

Example Table:

AOC	Number of Releases Detected	Material and Quantity Released	Date of Release	Phases of Investigation Completed	Current Max COCs in Soil [Sediment] (Soil Vapor)	Historic Max COCs in Overburden / Bedrock Groundwater	Current Max COCs in Overburden / Bedrock Groundwater	COCs in Surface Water	Remediation Status and Date
Example - Tank Farm	2	No. 2 Fuel Oil (500gal) and dichromate wastewater (200gal)	10/4/97 & 7/15/85	I - 10/5/98; II - 7/9/00 III - 6/1/01	ETPH 1,000*ppm (5-6') and Cr 56ppm (5-7')	ETPH 150*ppb (O=5-15')	ETPH <100ppb (O=5-15')	ND	soil removed 9/1/01
Example - Dry Cleaning Machine	1	PCE	Prior to 11/13/98	I - 10/5/98; II - 7/9/00	PCE 500*ppm (0-2')	PCE 50*ppb (B=20-25')	PCE 40*ppb (B=20-25') 11DCE 15*ppb	Unknown	further investigation planned
Example - Dumpster	0	---	---	I - 10/5/98; II - 7/9/00	ND	ND	ND	ND	no further action

Key:

*	concentrations in excess of the RSR criteria
ND	not detected
NT	not tested
UNK	unknown
O	overburden
B	bedrock

AOC	Number of Releases Detected	Material and Quantity Released	Date of Release	Phases of Investigation Completed	Current Max COCs in Soil [Sediment] (Soil Vapor)	Historic Max COCs in Overburden / Bedrock Groundwater	Current Max COCs in Overburden / Bedrock Groundwater	COCs in Surface Water	Remediation Status and Date

Site Address:

Part IX: LEP Information

Licensed Environmental Professional (LEP):

"This form was prepared under my supervision, as a LEP, pursuant to CGS Section 22a-134(17) for Property Transfer and Voluntary Remediation Program sites. My professional services have been rendered in accordance with the 'Rules of Professional Conduct' (Section 22a-133v-6 of the Regulations of Connecticut State Agencies)."

Signature of LEP

LEP # _____ Date ____/____/____

Print or type LEP Name:

Firm Name:

E-mail Address:

Mailing Address:

City/Town: _____ State: _____ Zip Code: _____ -

Business Phone: _____ - - Ext. _____ Fax: _____ - -

Part X: Certification

Certifying Party (for purposes of the Property Transfer Act, CGS Section 22a-134a) or Other Party (for purposes of CGS Section 22a-133x or other law):

"I have personally examined and am familiar with the information submitted in this document, and certify that based on reasonable investigation the submitted information is true and accurate to the best of my knowledge and belief."

Authorized Signature (as specified in instructions)

Date ____/____/____

Name of Authorized Representative (print or type) _____ Title (if applicable) _____

Represented Party:

Mailing Address:

City/Town: _____ State: _____ Zip Code: _____ -

Phone: _____ - -

STATE OF _____ SS
COUNTY OF _____ Town

The foregoing was subscribed to and sworn to before me this _____ day of _____, 20____, by _____ (Name of Signatory, Title and Company, if applicable), who personally appeared, and that person, as such, satisfactorily proven to be authorized to do so, executed the foregoing instrument for the purposes therein contained.

Signature of Notary/Commissioner of Superior Court

Name of Notary/Commissioner of Superior Court (print or type) _____

My commission expires ____/____/____.

ATTACHMENT B

Completion of Investigation Transmittal Form



Bureau of Water Protection and Land Reuse Remediation Division

Date Stamp
(DEP Use Only)

Completion of Investigation Transmittal Form

This form is prescribed by the Commissioner pursuant to CGS 22a-134a(g)(1)(A), and must be completed as a cover to transmit a final site investigation report. A report on the completed investigation of the parcel is to be attached to this form, as well as all other applicable documentation which demonstrates that the investigation of the parcel has been completed in accordance with prevailing standards and guidelines. The report should conform to all reporting requirements described in the Site Characterization Guidance Document (SCGD), rev. 12/2010.

Part I of this form is to be completed and signed by the Party responsible to complete the investigation of the parcel. Part II of this form is to be completed, signed and sealed by a licensed environmental professional (LEP).

All sections of this form must be completed, as applicable.

PART I: GENERAL INFORMATION

Remediation ID No. (Rem#):

Site Identification

Site Name:

Site Address:

City/Town:

State:

Zip Code:

-

Description in Property Deed:

Recorded on page

of volume

of the Town of

land records, as lot

block

on map

in the Tax Assessor's Office.

Site Contact Information

1. Business/person submitting this form:

Business Name:

Name of Authorized Representative:

Title:

Mailing Address:

E-mail Address:

City/Town:

State:

Zip Code:

-

Business Phone:

- -

Ext.

Fax:

- -

2. Owner of the parcel:

Name:

E-mail Address:

Mailing Address:

City/Town:

State:

Zip Code:

-

Business Phone:

- -

Ext.

Fax:

- -

Completion of Investigation Transmittal Form (continued)

Rem#:

PART I: GENERAL INFORMATION (continued)

Check the box indicating under which program this documentation is being submitted:

- ☐ Connecticut General Statutes (CGS) section 22a-134a(a)-(e), Property Transfer filing
- ☐ CGS section 22a-133x, Voluntary Remediation
- ☐ Other (specify)

List Additional Supporting Documentation and identify whether the documents are attached to this transmittal form ("A") or are already on file with the Department ("F").

DOCUMENT	DATED	PREPARED BY	ATTACHED (A) / ON FILE (F)

Certification

"I submit this form and attached final site investigation report, approved in writing by a licensed environmental professional, and other applicable documentation which demonstrates the investigation of the parcel has been completed in accordance with prevailing standards and guidelines."

Printed Name of Signatory

Title

Authorized Signature

Date

Representing (Name of Company):

Address:

City/Town:

State:

Zip Code:

-

Phone: - -

Completion of Investigation Transmittal Form (continued)

Rem#:

PART II: SITE SUMMARY

To be completed by the LEP:

Groundwater Class:		Drainage Basin Number:	
Distance to / location of nearest surface water body:			
Name of water body:		Type of water body:	
Surface Water Class:			
Wastewater Discharge (check appropriate box):			
<input type="checkbox"/> on-site septic/leachfield			
<input type="checkbox"/> sanitary sewer		NPDES Permit Number:	
<input type="checkbox"/> municipal stormwater system		Stormwater Discharge Permit Number:	
<input type="checkbox"/> other (specify):			
On-site groundwater use (check all that apply):	<input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Potable water		
Abutting land uses (check all that apply):	<input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Agricultural		
Sensitive receptor land use in vicinity (check all that apply):	<input type="checkbox"/> school <input type="checkbox"/> childcare facility <input type="checkbox"/> healthcare facility <input type="checkbox"/> recreational <input type="checkbox"/> other (specify):		
Bedrock Type:		Depth to Bedrock:	
Overburden Material:			
Depth to Water Table:		Groundwater Flow Direction:	
Seasonally low water table beneath elevation of bedrock surface anywhere on the site? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Groundwater Flow Rate:		Hydraulic Conductivity:	
Description of establishment operations:			

Completion of Investigation Transmittal Form (continued)

Rem#:

PART II: SITE SUMMARY (continued)**Findings**

Date Phase I ESA completed:	Number of AOCs identified:
Date Phase II investigation completed:	Number of AOCs tested:
Date Phase III investigation completed:	Number of releases identified:
Bedrock aquifer investigated? <input type="checkbox"/> Yes <input type="checkbox"/> No If not, provide rationale:	
Are NAPLs present on-site? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, explain:	
List COCs detected in soil:	
List COCs detected in groundwater (indicate if bedrock or overburden aquifer):	
Groundwater plume, originating from on-site source, migrating off-site?	<input type="checkbox"/> Yes <input type="checkbox"/> No
List substance(s) detected on-site attributed to a background condition; media in which substance(s) detected; and concentrations:	
Representative sampling has been conducted to demonstrate background conditions	<input type="checkbox"/> Yes <input type="checkbox"/> No

Completion of Investigation Transmittal Form (continued)

Rem#:

PART II: SITE SUMMARY (continued)

Findings (continued)

Remediation or some alternative means to demonstrate / achieve compliance with the RSRs is required:		<input type="checkbox"/> Yes <input type="checkbox"/> No
RSR Criterion Exceeded:	<div style="display: flex; flex-wrap: wrap;"><div style="width: 33%;"><input type="checkbox"/> ResDEC</div><div style="width: 33%;"><input type="checkbox"/> I/C DEC</div><div style="width: 33%;"><input type="checkbox"/> PMC</div><div style="width: 33%;"><input type="checkbox"/> GWPC</div><div style="width: 33%;"><input type="checkbox"/> SWPC</div><div style="width: 33%;"><input type="checkbox"/> Res VolC</div><div style="width: 33%;"><input type="checkbox"/> I/C VolC</div></div>	
List COCs and concentrations for each criterion exceeded:		
<p>Was analysis for TCE conducted? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If TCE was detected in groundwater or soil vapor, was it evaluated and addressed in light of the February 2015 joint DPH/DEEP guidance?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>Explain all "No" answers:</p>		
<p><i>Note: If chlorinated solvents (specifically TCA) were detected in groundwater, 1,4-Dioxane may also be present.</i></p> <p>Was analysis for 1,4-Dioxane conducted? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If 1,4-Dioxane was detected in groundwater, was it evaluated in light of CTDPH's established Action Levels of 3.0 ug/L for drinking water and 50 ug/L for dermal contact?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>Explain all "No" answers:</p>		
If VolC has been exceeded, has a survey been conducted to identify all occupied buildings (on-site and off-site) which overlie the plume?		<input type="checkbox"/> Yes <input type="checkbox"/> No
If VolC has been exceeded, has a survey been conducted to identify all occupied buildings downgradient of plume which may be considered at risk?		<input type="checkbox"/> Yes <input type="checkbox"/> No
Provide explanation for "No" answers:		
Number of occupied buildings overlying plume identified :		

Completion of Investigation Transmittal Form (continued)

Rem#:

PART II: SITE SUMMARY (continued)

Findings (continued)

Describe type of building use for each occupied building:

Has vapor intrusion been assessed for each occupied building?

☐ Yes☐ No☐ Assessment plan being developed

Explain results:

Potable Well Receptor Survey / Assessment

Date Potable Well Receptor Survey completed?

Radius of survey:

If not completed, explain:

Number of water supply wells identified:

Distance to nearest public water supply well from Release Area:

Distance to nearest private water supply well from Release Area:

List potable wells sampled, known well construction, distance from Release Area, and indicate COCs detected:

Was a significant hazard, as defined in §22a-6u identified? ☐ Yes ☐ No

Significant Hazard Notification filed? ☐ Yes Date filed:

☐ No → Explain answer:

Completion of Investigation Transmittal Form (continued)

Rem#:

PART II: SITE SUMMARY (continued)

Findings (continued)

List ecological receptors identified:

If identified, was assessment of risk to ecological receptor(s) completed? ☐ Yes ☐ No ☐ N/A

If yes or no, explain:

LEP Certification

"I have personally examined and am familiar with the information contained in this transmittal form and all referenced and attached supporting documentation, and I conclude and approve the information demonstrates that the investigation of the above referenced parcel has been completed in accordance with prevailing standards and guidelines. My professional services have been rendered in accordance with the 'Rules of Professional Conduct' (Section 22a-133v-6 of the Regulations of Connecticut State Agencies)."

Printed Name of LEP

License Number

Signature of LEP

Date

Company:

Address:

City/Town:

State:

Zip Code:

-

Phone: - -

e-mail:

Affix Seal Here

Submit this completed form and supporting documents to:

REMEDATION DIVISION, 2ND FLOOR,
BUREAU OF WATER PROTECTION AND LAND REUSE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET, HARTFORD, CT 06106 - 5127

ATTACHMENT C

Remedial Action Transmittal Form



**Bureau of Water Protection and Land Reuse
Remediation Division**

Date Stamp
(DEP Use
Only)

Remedial Action Plan Transmittal Form

This form is a cover to transmit a remedial action plan. When the use of this transmittal form is required or requested by the Commissioner, a remedial action plan approved in writing by the LEP, a copy of public notification of remediation, as well as all other documentation which demonstrates all applicable laws and regulations have been complied with, is to be attached to this transmittal form to document that remediation of the establishment has been initiated.

Part I of this form must be completed and signed by the Party responsible to submit a remedial action plan for the remediation of the parcel in accordance with the remediation standards. Part II of this form is to be completed and signed and sealed by a licensed environmental professional (LEP).

All sections of this form must be filled out, as applicable.

PART I: GENERAL INFORMATION

Remediation ID No. (Rem#):

Site Identification

Establishment Name (as on Form III):

Establishment Address:

City/Town:

State:

Zip Code:

Description in Property Deed:

Recorded on page of volume of the Town of

land records, as lot block on map in the Tax Assessor's Office.

Check the box indicating under which program this documentation is being submitted:

- ☐ Connecticut General Statutes (CGS) section 22a-134a(a)-(e), Property Transfer filing
- ☐ CGS section 22a-133x, Voluntary Remediation
- ☐ Other (specify)

Submit this completed form to:

REMEDIATION DIVISION, 2ND FLOOR,
BUREAU OF WATER PROTECTION AND LAND REUSE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET, HARTFORD, CT 06106 - 5127

Remedial Action Plan Transmittal Form (continued)

Rem#:

PART I: GENERAL INFORMATION (continued)

The following documentation must be attached to this form. Check boxes, as applicable, to verify that the documentation has been submitted with this form.

<input type="checkbox"/> REMEDIAL ACTION PLAN - in accordance with CGS Section 22a-134a(g)(1)	
Dated:	Prepared by:
<input type="checkbox"/> PUBLIC NOTICE OF REMEDIATION - in accordance with CGS Section 22a-134a(i)	
<input type="checkbox"/> copy of published notice in newspaper	
<input type="checkbox"/> copy of notice to local Director of Health	
Check the applicable box if additional public notice requirements were implemented and provide documentation.	<input type="checkbox"/> sign erected on establishment <input type="checkbox"/> copies of the notice of remediation mailed to abutting property owners
<i>Note: Certifying Party must provide copies of any written public comments and responses.</i>	

List Additional Documentation (as applicable) and attach to this form.

DOCUMENT	DATED	PREPARED BY

Certifying Party Certification

"I submit this form and attached remedial action plan approved by a licensed environmental professional. I shall apply for all permits and approvals that are necessary to carry out the remedial actions, and I shall ensure that any necessary permit applications are complete and that the issuance of any such permit and/or approval will be diligently pursued."	
Printed Name of Authorized Signatory	Title
Signature of Authorized Signatory	Date
Representing (Name of Company):	
Address:	
City/Town:	State: Zip Code:
Phone:	

Remedial Action Plan Transmittal Form (continued)

Rem#:

PART II: REMEDIAL ACTION PLAN SUMMARY

To be completed by the LEP

Groundwater Class:		
Soil: Concentrations of Pollutants in Excess of RSR Criteria:		
Criterion Exceeded	Remedial Measure	COC
<input type="checkbox"/> PMC <input type="checkbox"/> GA <input type="checkbox"/> GB <input type="checkbox"/> DEC <input type="checkbox"/> Res <input type="checkbox"/> I / C	<input type="checkbox"/> in-situ <input type="checkbox"/> excavation / on-site re-use <input type="checkbox"/> excavation & removal <input type="checkbox"/> Engineered control Date of Commissioner Approval: <input type="checkbox"/> ELUR <input type="checkbox"/> RSR exemption <input type="checkbox"/> RSR Alternative Criteria Date of Commissioner Approval: <input type="checkbox"/> Other (specify):	<input type="checkbox"/> non-chlorinated VOCs <input type="checkbox"/> Chlorinated VOCs <input type="checkbox"/> Metals <input type="checkbox"/> PAHs <input type="checkbox"/> SVOCs <input type="checkbox"/> PCBs <input type="checkbox"/> ETPH <input type="checkbox"/> Pesticides <input type="checkbox"/> Other (specify):
Groundwater: Concentrations of Pollutants in Excess of RSR Criteria:		
Criterion Exceeded	Remedial Measure	COC
<input type="checkbox"/> GWPC <input type="checkbox"/> Volatilization <input type="checkbox"/> SWPC	<input type="checkbox"/> Pump & Treat <input type="checkbox"/> Air Sparging / Vapor extraction <input type="checkbox"/> Dual-Phase <input type="checkbox"/> Monitored natural attenuation <input type="checkbox"/> ELUR <input type="checkbox"/> RSR exemption <input type="checkbox"/> RSR Alternative Criteria Date of Commissioner Approval: <input type="checkbox"/> Other (specify):	<input type="checkbox"/> non-chlorinated VOCs <input type="checkbox"/> Chlorinated VOCs <input type="checkbox"/> Metals <input type="checkbox"/> PAHs <input type="checkbox"/> SVOCs <input type="checkbox"/> PCBs <input type="checkbox"/> ETPH <input type="checkbox"/> Pesticides <input type="checkbox"/> Other (specify):

Remedial Action Plan Transmittal Form (continued)

Rem#:

PART II: REMEDIAL ACTION PLAN SUMMARY (continued)

Vapor Intrusion:	
Remedial Measure	<input type="checkbox"/> sub-slab depressurization
	<input type="checkbox"/> vapor barrier
	<input type="checkbox"/> indoor-air monitoring
Date of DPH Commissioner Approval of such plan:	
NAPL present:	<input type="checkbox"/> Overburden <input type="checkbox"/> Bedrock <input type="checkbox"/> <input type="checkbox"/> None
Other (specify):	

LEP Approval

"I have personally examined and am familiar with the information in the remedial action plan summary of this transmittal form, and I approve the attached remedial action plan. My professional services have been rendered in accordance with the 'Rules of Professional Conduct' (Section 22a-133v-6 of the Regulations of Connecticut State Agencies)."	
Printed Name of LEP	License Number
Signature of LEP	Date
Company:	
Address:	
City/Town:	State: Zip Code:
Phone:	
<i>Affix Seal Here</i>	