



**PUBLIC NOTICE**  
**EPA Brownfields Cleanup Grant Proposal**  
**Town of Stratford**

The Town of Stratford is applying for a \$200,000 Brownfield Cleanup Grant from the United States Environmental Protection Agency for activities associated with the remediation and demolition of the former Mercer Coal Facility located at 2350 Stratford Avenue, Stratford, Connecticut.

As part of the application process, the Town of Stratford is required to obtain public input to their proposal, which is due January 22<sup>nd</sup>, 2014. Starting January 6<sup>th</sup>, 2014, a summary proposal and the proposed Analysis of Brownfield Cleanup and Alternatives will be available for public review on the Town of Stratford's website ([www.townofstratford.com](http://www.townofstratford.com)) and at the Stratford Town Hall in the Town Clerk's Department (2725 Main Street, Stratford, Connecticut)

The Town of Stratford will also discuss the draft proposal and consider response comments at a public meeting on January 7<sup>th</sup>, 2013 at 6 pm in Room 213 of the Stratford Town Hall at 2725 Main Street, Stratford, Connecticut.

The Town of Stratford will consider and respond to and/or incorporate all substantial written comments provided by January 13<sup>th</sup>, 2013. Written comments should be directed by email to [brownfields@townofstratford.com](mailto:brownfields@townofstratford.com) or by US Mail to Mr. Brian Carey, Conservation Administrator, Town of Stratford, 550 Patterson Avenue, Stratford, Connecticut, 06615.

To be published in the Connecticut Post on December 23<sup>rd</sup>, 2013



**Threshold Criteria**

**1. Applicant Eligibility**

- a. Eligible Entity: The Town of Stratford is a “General Purpose Unit of Local Government” as defined in 40 CFR Part 31.
  
- b. Site Ownership: The subject site at 2350 Stratford Avenue in Stratford, Connecticut was obtained by the Town of Stratford through tax foreclosure on March 18<sup>th</sup>, 2011.

**2. Letter from the State Environmental Authority**

Attached in the appendix is a current letter from the Bureau of Water Protection and Land Reuse at the Connecticut Department of Energy and Environmental Protection acknowledging our plans to conduct cleanup activities at the subject site, dated December 5<sup>th</sup>, 2013.

**3. Site Eligibility and Property Ownership Eligibility**

- a. *Basic Site Information:* a) Mercer Fuel (former Mercer Oil Company); b) 2350 Stratford Ave, Stratford, CT 06615; c) Current Owner: Town of Stratford, CT; d) Town acquired the site on March 18<sup>th</sup>, 2011 through a tax foreclosure.

*b. Status and History of Contamination at the Site:*

- a) The subject site is predominately contaminated with hazardous substances with some comingled residual petroleum contamination;

- b) From 1929-1979, the subject site operated as Mercer Fuel Company, which was a distributor of coal and home heating oil. The site has been vacant and inoperable since 1979;

- c) Based on an environmental investigations (i.e. Phase I, Phase II, Phase III) completed at the site since 2011, the primary Constituents of Concern (COCs) include; Metals (Lead, Arsenic, Chromium), PAHs (Various Compounds), Petroleum Hydrocarbons (ETPH) and hazardous building materials (asbestos, PCBs);

- d) The site was operated as bulk storage coal and petroleum distribution facility between 1929 and 1979. Prior to 1929, the site was undeveloped land. The primary source of the contamination at the site were three (3) 30,000-gallon fuel oil underground storage tanks (USTs), two (2) 10,000-gallon fuel oil USTs, and two (2) 5,000-gallon gasoline USTs. All known and identified USTs were removed from the site for proper disposal in June 2011 by the CT DEEP UST Program. In addition, the site was historically filled with wide spread polluted fill as determined during the Phase II and Phase III investigations. The identified areas of concern were investigated during the Phase II/Phase III investigations and include the following Release Areas 1 through 8 as described below:

<b>RELEASE AREAS</b>	
<b>RA1</b>	Pesticides in Soil
<b>RA2</b>	Site Wide Polluted Fill
<b>RA3</b>	Lead in Soils surrounding Building
<b>RA4</b>	Demolition Building Materials in Fill Pile
<b>RA5</b>	Groundwater Plume - East

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<b>RA6</b>	Groundwater Plume – West
<b>RA7</b>	Petroleum Impacted Soils
<b>RA8</b>	Former Hydraulic Scale

c) *Sites Ineligible for Funding:* a.) The site is not listed or proposed for listing on the National Priorities List (NPL), b.) The Site is not subject to unilateral administrative orders, court orders, or administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA, c.) The Site is not subject to the jurisdiction, custody, or control of the United States government. Additionally, the EPA completed its own Brownfields Community-Wide Assessment Program site eligibility determination and approved the site as eligible for Brownfields Assessment Funding on September 9<sup>th</sup>, 2012 under EPA Grant Award No. BF- 96153301-0.

d) *Sites Requiring a Property-Specific Determination:* The site does not have a viable responsible part as the Town took the property through tax foreclosure on March 18<sup>th</sup>, 2011.

e) *Environmental Assessment Required for Cleanup Proposals:* The following table documents the previous environmental investigations that have been completed at the site as part of the redevelopment and reuse planning:

<b>ENVIRONMENTAL ASSESSMENT</b>	<b>SITE</b>	<b>CONSULTANT</b>	<b>DATE</b>
Targeted Subsurface Investigation Report		Loureiro Engineering Associates, Inc. (LEA)	August 2010
Underground Storage Tank Closure Report		Loureiro Engineering Associates, Inc. (LEA)	September 2012
Phase I ESA		HRP Associates, Inc. (HRP)	October 2012
Phase II ESA		HRP Associates, Inc. (HRP)	January 2013
Phase III ESA/Remedial Action Plan (RAP)		HRP Associates, Inc. (HRP)	October 2013

**Property Ownership Eligibility**

a. ***CERCLA § 107 Liability:*** The Town of Stratford affirms that it is not potentially liable for contamination at the site under CERCLA §107. The Town is eligible for CERCLA liability protection as a local government entity that acquired the property through an “involuntarily acquisition” in March 2011 as detailed in the exemption described under CERCLA § 101(20)(D).

b. ***Enforcement or Other Actions:*** No ongoing or anticipated environmental enforcement or other actions exist for the subject site. The Town of Stratford is not aware of any inquiries or orders from federal, state or local government entities regarding the responsibility of any party for contamination.

***c. Information on Liability and Defenses/Protections:***

i) ***Information on Property Acquisition:*** The Town acquired the subject property through real property tax foreclosure on March 18<sup>th</sup>, 2011 from a private company

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(“1037 New Haven Avenue, LLC”). The Town has fee-simple, sole ownership of the site. The Town has no known familial, contractual, corporate or financial relationships or affiliations with any prior owners or operators of the property.

- ii) *Timing and/or contribution toward hazardous substances disposal:* The Town affirms that all disposal of hazardous substances at the subject site occurred prior to the Town’s acquisition of the property and is not responsible for causing or contributing to any release of hazardous substances. The Town of Stratford affirms that it has not arranged for the disposal of any hazardous substances on the site or transported hazardous substances to the site since the foreclosure was completed in March 2011. The perimeter of the property was fenced and secured after the Town acquired ownership of the property.

iii) *Pre-Purchase Inquiry:* Since the property was acquired by the Town through an “involuntarily acquisition” (CERCLA § 101(20)(D), no inquiries or assessments were performed. After taking receivership of the property, the Town has since completed a Phase I (October 2012), Phase II (January 2013), and Phase III (October 2013) investigations utilizing funding from the Town’s current Brownfield Assessment Grant Award No. BF- 96153301-0.

- iv) *Post Acquisition Uses:* Since the Town took ownership of the subject site, it has remained fenced/locked and inactive. No activity is occurring on the site and the site has been posted as no trespassing. At this point in time, the Town has no plans to lease, operate, or utilize the property for any purpose until the remediation has been completed and a redevelopment is initiated.

- v) *Continuing Obligations:*

In order to stop continuing releases, prevent a threatened future release, and prevent/limit exposure to a previously release substance, the Town has done the following:

- Secured the site with fencing and has posted the property. In addition, Town police and other representatives provide periodic security checks of the property and building.
- Disconnected utility services to the structures on the site.
- Continue to maintain security at the site to prevent trespassers and others from coming into contact with potential hazardous substances.

As part of the cleanup of this property, The Town is committed to:

- Complying with all land use restrictions and institutional controls;
- Assisting and cooperating with those performing the cleanup and to provide access to the property;
- Complying with all information requests and administrative subpoenas that have or may be issued in connection with the property, and
- Providing all legally required notices.

#### **4) Cleanup Authority and Oversight Structures**

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a.) The cleanup will be overseen and verified by a Licensed Environmental Professional (LEP) under the Connecticut Department of Energy and Environmental Protection Voluntary Remediation Program (Connecticut General Statutes Section 22a-133x). As entry into the Voluntary Remediation Program, the Town of Stratford will prepare and submit an Environmental Condition Assessment Form (ECAAF) to the Remediation Division of the CTDEEP. The CTDEEP Remediation Standard Regulations (RSRs) will be the prevailing environmental cleanup criteria for the subject site. The goal is to have the Site remediated to a residential standard under the RSRs criteria.

Specific criteria that apply to the Site under the RSRs include: the Residential Direct Exposure Criteria (RES DEC), the GB Pollutant Mobility Criteria, and the Surface Water Protection Criteria (SWPC). Prior to initiating any work, the Town will develop a generic Quality Assurance Project Plan and Site-specific Quality Assurance Project Plan as required by EPA Region I.

The Town will provide general project oversight and environmental coordination through a qualified environmental engineering firm. All contractors or engineers performing work under the grant will be secured using the Town's procurement code and will be consistent with the provisions of 40 CFR 31.36.

b.) The Mercer Fuel Property is bounded by Metro-North Rail Road to the north, the Stratford Motor Inn to the East, Stratford Sandblasting to the west, and Saint Michaels Cemetery to the south. Prior to remediation, all adjacent landowners will be notified of the intent to conduct remediation actions from the Town by certified mail. At this point in time, it is not anticipated that access to adjacent sites will be required to complete the remediation activities or future long-term ground water monitoring. If in the future neighboring site access is required to monitor the existing groundwater plume, the Town will enter into access agreements with the neighboring property owner's outlining the location of potential monitoring wells and access conditions agreeable to adjacent property owners.

#### **4. Cost Share**

The Town is prepared to provide the required 20% cost share for this Cleanup Grant (\$40,000). This money will be used to support contractual services and materials to perform the following tasks: Environmental Clean-Up, Community Outreach/Involvement Program (e.g., semiannual public meetings, press releases on project), and management of cleanup grant funding.

The source of the funds will come from the general fund. The Stratford Redevelopment Agency is currently working with Town officials to create a brownfields redevelopment trust fund that will be capitalized through a portion of the sale proceeds of Town-owned properties as they are sold and transferred. It is likely that when this fund is established the match will come from this sub-account. However, even if it is not established in time for this project, the Town will still provide the match through other general fund sources.

#### **5. Community Notification**

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The Town provided notice to the public of its intent to apply through a notice published in the Connecticut Post on December 23, 2013. This ad also informed the public on 1) the availability of the copies of the draft application and the draft ABCA for their review and comment, 2) how to submit written comment to the Town and 3) announced a dedicated public meeting that was held on January 7<sup>th</sup>, 2014 at Town Hall where the public could comment and ask questions of Town officials about the project and the application. The notice was also posted on the Town's website.

XX written comments were submitted to the Town. A summary of those comments and the Town's response are included as attachments. Likewise, notes and comments- with the Town's responses- from the January 7<sup>th</sup> public meeting are included as attachments as well.

**1. Community Need [15 points]**

***a) Targeted Community and Brownfields (5 points)***

The Town of Stratford is located in the southeast corner of Fairfield County, Connecticut, on the shores of Long Island Sound and the Housatonic River. The town is directly east of the City of Bridgeport and is part of the Greater Bridgeport Region, which includes the Towns of Easton, Fairfield, Monroe and Trumbull, as well as the City of Bridgeport. Stratford is 60 miles from New York City and is in the New York Metropolitan Area. Boston is 120 miles east of the town. The Metro-north commuter railroad has a stop in Stratford. Both I-95 and Merritt Parkway (State Route 15) traverse the town. A ferry runs from Bridgeport to Port Jefferson, Long Island. Stratford serves as a bedroom community for both Bridgeport and New York City.

Stratford has long-been associated with a local economy characterized by heavy industrial manufacturing. It is an extensively urbanized community and has historically been a center of defense and aviation industry within the region. As the birthplace of the American helicopter industry, Stratford has been home to such private manufacturers as Sikorsky Aircraft, the world's leading helicopter manufacturer, as well as the defunct U.S. Army Engine Plant. It is also the home to the now-defunct Raymark Industries, an EPA Superfund site whose legacy of contamination has left an indelible mark on the Town. The Army Engine Plant and Raymark serve as reminders of the history of irresponsible manufacturers that have polluted the Town, rendered so much of its property dangerous and unusable, and placed residents health and safety at grave risk.

A 1959 Chamber of Commerce brochure on Stratford's industrial and manufacturing businesses listed no fewer than 90 establishments that mainly supported defense manufacturing at the U.S. Army Engine Plant, AVCO and Sikorsky Aircraft. Most of these businesses manufactured such products as boats, machine tools and parts, electrical products, wire and cable, iron and steel forgings, disinfectants and other chemicals, rubber products, and mold castings.

2350 Stratford Avenue is one of a list of 80 properties in Stratford known or strongly suspected by the Town to contain hazardous materials from manufacturing and related operations, ranging in size from a quarter of an acre to 19 acres (exclusive of Raymark Superfund sites). These properties are predominately found in the Town's South End neighborhood, which is the location of the subject property. Stratford's Economic Development Department estimates that at least 20% of the South End's total land area is comprised of contaminated commercial and industrial properties. Many of those are found along what is referred to as the Stratford Avenue corridor, which leads from the border between Stratford and Bridgeport to Main Street. This corridor serves as the entryway into the Town's Stratford Center Historic District and Transit Centered Development district.

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***Demographic Information***

	Targeted Investment Area (South End-Census Tract 802)	Stratford	State of CT	National
Population (1)	4,298	51,384	3,574,097	308,745,538
Unemployment (2)	28.5%	7.5%	6.9%	6.6%
Poverty Rate (3)	10.94%	4.8%	9.15%	13.82
Percent Minority (3)	76.1%	30.8%	22.4%	26.7%
Median Household Income (3)	\$57,308	\$67,530	\$67,740	\$51,914

(1) And (3) Sources: Census.gov, USA.com; (2) Sources: Census.gov, USA.com, State of CT Department of Labor-Office of Research

***Brownfields***

From 1929-1979, the subject site operated as Mercer Fuel Company, a bulk storage coal and petroleum distribution facility. Prior to 1929, the site was undeveloped land. The site has been vacant and inoperable since 1979 and was acquired by the Town through tax foreclosure on March 18<sup>th</sup>, 2011.

The primary source of the contamination at the site were three (3) 30,000-gallon fuel oil underground storage tanks (USTs), two (2) 10,000-gallon fuel oil USTs, and two (2) 5,000-gallon gasoline USTs. All known and identified USTs were removed from the site for proper disposal in June 2011 by the CT Department of Energy and Environmental Protection Underground Storage Tank Program. The site is also filled with wide spread polluted fill, as well as contaminated building materials in the remaining coal silos as determined during the Phase II and Phase III investigations. As such, the remaining contamination is characterized as primarily hazardous substances with some comingled residual petroleum.

2350 Stratford Avenue is located on the Stratford Avenue Corridor, a major commercial and industrial corridor that is surrounded by residential homes. Along and around this corridor and within this targeted census tract, there are approximately 1,600 total housing units and about 4,300 residents, 30% of whom are children age 19 and under. The neighborhood contains few green spaces or truly walkable areas- there is one small park and a large cemetery, but for the most part the area is predominately characterized by both vacant and operational light and medium industrial sites. The Town has identified **XX (still clarifying exact number)** other known or suspected brownfields in the area, including an adjacent site known as Wade's Garage, which is strongly suspected to be contaminated with pollutants typically found at junk yards and operational auto repair shops. The Town is currently pursuing tax foreclosure on this site as well. This corridor has been cited in the Town's Master Plan of Conservation and Development (updated in Winter 2013) as a major priority for economic and community development. While

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there has been some progress towards cleanup and redevelopment/reuse of two properties here, they represent a “drop in the bucket” when compared to the number of contaminated sites that remain.

The presence of brownfields in this community contributes to a lingering perception within the Town of the South End as a less-than-ideal community to live in. The proximity of brownfields to the homes in the area does very little to change this perception. Likewise, Stratford Avenue serves as a gateway into the Town’s Historic District and Transit Centered Development district, and the presence of vacant and operational commercial sites along this stretch of road does little to create a sense of a healthy community. Since this area has recently experienced some significant redevelopment, improving the perception of the area as run-down will be critical moving forward. 2350 Mercer Coal is one particularly notable site that contributes to this perception- it is characterized by its tall coal silos that stick out and above the rest of the low-level structures in the area. It is well known that the silos contain coal-related contaminants, and area residents and businesses are rightfully suspicious of its real and potential impact on air quality.

***Cumulative Environmental Issues***

In addition to the presence of contaminated sites, Stratford's proximity to major transportation thoroughfares and energy plants also impact air quality. The southern portions of the Town below Barnum Avenue are adjacent to the Interstate-95 corridor, exposing those citizens disproportionately to air, land and noise pollutants. Stratford is also located between two of the “dirty six” coal burning power plants in Connecticut in Bridgeport and Milford- both are within 2 miles of Stratford’s borders, literally surrounding the Town with coal-based pollutants.

**b. Impacts on Targeted Communities**

As part of its 2011 EPA Brownfields Community wide Assessment grant, Stratford has compiled a list of over 80 known or suspected brownfields properties. These properties are predominately found in the South End neighborhood, where the Town’s low to moderate census tracts, as well as its Community Development Block Grant catchment area, are located. The Town’s Economic Development Department estimates that at least 20% of the South End’s total land area is comprised of contaminated commercial and industrial properties. Residents of Stratford, particularly in the area around the subject site, are continually distressed about the impact of the waste on the health of themselves and their children. The poorest sections of Stratford are adjacent to the I-95 corridor, exposing those citizens disproportionately to air, land and noise pollutants. As previously stated, the presence of brownfields in this community contributes to a lingering perception within the Town of the South End as a less-than-healthy community to live in. 2350 Stratford Avenue is one particularly notable site that contributes to this perception- it is characterized by its tall coal silos that stick out and above the rest of the low-level structures in the area. It is well known that the silos contain coal-related contaminants, and area residents and businesses are rightfully suspicious of its real and potential impact on air quality.

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While no hard data exists providing a direct link between Stratford's brownfields and disease prevalence in the targeted and surrounding communities, an examination of the type of industries & businesses, contaminants of concern associated with these industries and links to diseases paint a frightening portrait of health risks to Stratford's poorest, youngest and oldest residents. Suspected contaminants of concern for the types of industries found in Stratford brownfields include VOCs, priority pollutant-13 metals, PCBs, petroleum hydrocarbons, and PAHs. Diseases most commonly associated with these pollutants include cancers, nervous system disorders, liver and kidney diseases, and birth defects.

While the exact impact of the presence of brownfields on Stratford's most vulnerable populations has yet to be assessed, we know from general public health data that Stratford residents- particularly among children- suffer from those illnesses most associated with environmental contamination and with the negative impact on quality of life and communities:

**Blood Lead Levels Among Children:** Stratford Health Department data shows that since 2006, over 150 children under the age of 6 have been identified with blood lead levels that merited Health Department intervention.

**Asthma** (source: *The Burden of Asthma in Connecticut- 2012 Surveillance Report, CT Dept. of Public Health*): Data shows that there were 1,169 emergency department visits related to asthma between 2006-2009. Of those, 291 were hospitalized.

**Cancer in Stratford:**

Between 2000 and 2003, the number of diagnosed invasive cancers was 1,499 (CT DPH surveillance data). Cancers documented included all non-lymphoma cancers, including cancers of the lung, cervix, colon-rectum, skin, prostate and breast (women only).

Residents in the South End live very close to contaminated sites. Children often play on the sites, exposing them to contaminants that they track home with them from dirt and dust. Undeveloped sites also represent lost job opportunities, forcing residents to travel outside Stratford to work. Given that less than 4% of residents use public transportation to commute to work, the overuse of cars on major highways such as Interstate 95 contributes to air pollution problems.

Additionally, brownfields along the Stratford Avenue corridor stand to hamper strategic transit centered development efforts that can reduce the amount of traffic congestion in the South End and in Historic Stratford Center, thus impeding efforts to reduce air pollutants and the creation of a more walkable, livable community in these areas.

**c. Financial Need [5 Points]**

**i.) Economic Conditions [3 points]**

During Stratford's last property revaluation during the Great Recession of 2008, the Town lost nearly \$65 million in grand list value, which significantly impacted the availability of local tax revenue for projects such as brownfields remediation. This fact is what prompted the Town to seek out EPA Brownfield Assessment grants initially in 2009. While the economic climate has been slowly improving, and we have started building a queue of town owned brownfields

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sites that represent promising potential for clean up and development, we still require outside assistance for these clean-up projects.

Additionally, over the past three years, Stratford and the Greater Bridgeport Region have been hit hard by catastrophic weather events (Superstorm Sandy, Hurricane Irene, the blizzard of February 2013, etc.) that have tied up the Town's personnel and financial resources repairing roads, sea walls and other Town infrastructure. While FEMA assistance has helped us cover some costs, other costs went un-reimbursed. Relatedly, Stratford's Fire Department lost one of its fire trucks during one of the weather events when it was nearly demolished on Interstate 95 while responding to an accident. The road conditions were so icy that two other semi-trucks lost control and hit the fire truck, putting it out of commission for months and costing the Town hundreds of thousands of dollars to fix and to rent another truck during repairs.

We have previously secured funding from the State of CT- Department of Economic and Community Development for another site on Stratford Avenue that has been successfully redeveloped as a brewery, and UST funding from the State has been used to remove storage tanks on the 2350 Stratford Avenue property. The Town will continue to seek funding through their programs for our brownfields sites. However, because of the sheer volume of sites in Stratford requiring attention, and the high cost of remediating these multiple sites, the Town must also look to sources such as the EPA to help us with clean-up activities. 2350 Stratford Avenue actually represents one of the least complex and least expensive clean up projects that the Town faces- we are confident that an EPA investment, coupled with progress we are making on securing adjacent sites to 2350 Stratford Ave, will lead to the clean up and re-use of a larger swath of land that can help us meet both economic development goals and potentially increase green space in the area with a pocket/gateway park.

The Town and the Stratford Redevelopment Agency has recently begun examining the establishment of a Brownfields Trust Fund that would be capitalized through proceeds from the sale of properties that the Town owns through tax foreclosure. However, the sale of many of these sites relies on the Town's ability to clean up the contamination first. An EPA investment in clean up funding for 2350 Stratford Avenue can help Stratford build momentum for this fund which will give us dedicated capital to conduct other clean-up activities in the future, making us less dependent upon EPA or other outside sources of funds down the road.

ii.) Economic Effects of Brownfields [2 points]

The demographic data provided on Stratford and the targeted communities illustrate a community that, while in slow recovery, is not yet maximizing its potential to improve the economic and environmental well-being of its residents. Stratford's unemployment rate of 7.5%, while improved from just a year ago when rates reached 9.5%, is still higher than the State's unemployment rate. In the targeted community where the subject site is located, the unemployment rate is four times that of the Town's rate. It is not hard to imagine that as brownfields in and near this area are redeveloped, there is strong potential for job creation that could improve the unemployment and poverty rates. Until they are, brownfields in this community will remain what they are- lost opportunities to improve the economic position and overall well-being of the residents here, and to attract new residents to the area.

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According to officials at the Town's Blight Office, Brownfields also contribute to greater frequencies of blight and crime in this community, making it more difficult to transform this area into a more livable community. Hard data is not yet readily available, but we do know that brownfields, particularly those with standing structures, experience frequent break-ins by persons looking for anything to re-sell: copper, piping, abandoned machinery, etc. Combating blight through the remediation and re-use of brownfields is a key strategy in Stratford's Plan of Conservation and Development, and the proposed clean-up project will help the Town to meet this goal.

**2. Project Description and Feasibility of Success [30 points]**

a. Project Description [15 Points]

i.) Existing Conditions (5 points)

The site, comprised of one tax parcel, is located at 2350 Stratford Avenue in the Town of Stratford, Fairfield County, Connecticut. The parcel is identified by the Town of Stratford as Map 20.8, Block 15 Lot 3. Encompassing approximately 0.69 acres, the site is developed with one (1) multi-story, wood and masonry commercial building, and a grouping of six (6) reinforced concrete silos previously utilized for coal storage. The Town of Stratford foreclosed on the property in March 2011 due based on outstanding tax delinquency and is the current deed holder.

The current site buildings were constructed between 1924 and 1934. The office building is located along the western property boundary, while the grouping of concrete silos is somewhat centrally located on-site. A paved driveway parking area is located to the west of the office building. Future use of the site is intended for redevelopment. The parcel is bordered by Metro-North railroad tracks to the north, Stratford Sandblasting and Monuments to the west, Stratford Avenue and then Saint Michael's Cemetery to the south, and the Stratford Motor Inn and commercial businesses to the east. The site is secured with a 6-foot high chain link fence since the property was foreclosed on in March 2011.

Historically, the site was utilized for commercial purposes by C.J. Mercer and Sons, Inc. as a coal and bulk oil storage and distribution facility circa 1920s until the mid- to late-1970s. The property has remained primarily abandoned since the mid- to late-1970s. Eight (8) previously registered (circa 1986) underground storage tanks (USTs) were removed from the property in 2011 under the direct supervision of the CTDEEP UST Division. The tanks were located in two general areas located to the east and west of the coal towers, hereinafter referred to as the Tank Farm East and Tank Farm West areas, respectively. To date, remediation that has been completed at the site has been limited to the removal of all of the identified USTs. Additional soil and groundwater contamination associated with the former USTs remains at the site.

**Previous Investigations/Environmental Reports**

The following table documents the previous environmental investigations that have been completed at the site as part of the redevelopment and reuse planning:

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<b>ENVIRONMENTAL SITE ASSESSMENT</b>	<b>CONSULTANT</b>	<b>DATE</b>
Targeted Subsurface Investigation Report	Loureiro Engineering Associates, Inc. (LEA)	August 2010
Underground Storage Tank Closure Report	Loureiro Engineering Associates, Inc. (LEA)	September 2012
Phase I Environmental Site Assessments (ESA)	HRP Associates, Inc. (HRP)	October 2012
Phase II ESA	HRP Associates, Inc. (HRP)	January 2013
Phase III ESA/Remedial Action Plan (RAP)	HRP Associates, Inc. (HRP)	October 2013

The site was historically filled with wide spread polluted fill as determined during the Phase II and Phase III investigations. The results of the Phase III investigation determined that remedial actions are required in the following release areas as noted:

<b>RELEASE AREAS</b>		<b>STATU S</b>	<b>REMEDIATION ACTION</b>
<b>RA 1</b>	Pesticides in Soil	Closed	Filing of an ELUR; No additional investigation or remediation required
<b>RA 2</b>	Site Wide Polluted Fill	Open	Remedial Action Requires “Hot Spot” Removal and ELUR
<b>RA 3</b>	Lead in Soils surrounding Building	Open	Source Removal of Lead Impacted soils after building Demolition or filing of an ELUR
<b>RA 4</b>	Demolition Building Materials in Fill Pile	Open	Hazardous Waste Profile Sampling and Disposal offsite or reuse onsite as fill
<b>RA 5</b>	Groundwater Plume - East	Open	Natural Attenuation Groundwater Monitoring
<b>RA 6</b>	Groundwater Plume – West	Open	Natural Attenuation Groundwater Monitoring
<b>RA 7</b>	Petroleum Impacted Soils	Open	Source Removal of “Hot Spots” in exceedance of the GBPMC and filing of an ELUR
<b>RA 8</b>	Former Scale	Closed	Source Removal or Filing of an ELUR; No additional investigation required
<b>Pre-Demolition Abatement</b>		Open	Pre-demolition abatement of both the residential building and Coal Towers

While no specific reuse plans are in place yet, the Site is located along the eastern border of the City of Bridgeport on Stratford Avenue and is situated on one of the major gateways into

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the Town of Stratford. Future reuses of the property will be aimed at increasing the marketability of the gateway corridor into the Town from the current blighted condition. The Stratford Avenue corridor is currently undergoing a revitalization which has been several years in the making. The area is located on the outskirts of Stratford's new Transit Oriented Center Development District. Redevelopment of the site will continue the significant momentum that has occurred in the past year along this corridor, specifically the clean-up of the former U.S. Baird manufacturing site (now Two Roads Brewing Company) and the former Keating Ford site, which is now home to a 128-unit rental housing development. The Town plans on working with perspective redevelopers to make sure that Low Impact Development Design features are implemented and that the reuse will serve the needs of the adjacent community.

ii.) Proposed Cleanup Plan (10 points)

Stratford elects to move forward with Alternative #3 from the draft ABCA: Demolition and Filing of Environmental Land Use Restriction.

**Effectiveness:** The demolition and filing of an Environmental Land Use Restriction on the property would require a full understanding of the final end of the property so that building design schemes could be evaluated. Alternative #3 would reduce to risk to sensitive receptors through the prevention of direct exposure to contaminated soils. However, future building at the site would need to be strictly controlled to prevent the potential for vapor intrusion risks to commercial workers from petrol contamination from the previous underground storage area. To mitigate the vapor intrusion risk, a sub-slab ventilation system may need to be installed under any potential building on the Site.

**Implementability:** The demolition and filing of an Environmental Land Use Restriction on the property would require a full understanding of the final end use of the property so that building design schemes could be evaluated. This alternative would be moderately difficult to implement and would not require the greatest amount of upfront resources. However, long-term ground monitoring costs and the potential monitoring of a sub-slab ventilation system on any potential building would require a long term financial commitment. This strategy would be considered the least difficult to implement since it would not require a large scale excavation of contaminated soil for offsite disposal.

**Cost:** The demolition and filing of an Environmental Land Use Restriction on the property would require a full understanding of the final end use of the property so that building design schemes could be evaluated. The Cost for Alternative #3 would be approximately \$230,000. This is the second most costly Alternative.

**b. Task Description and Budget Table [10 Points]**

***Task Descriptions***

***Task 1: Cleanup Planning and Design:*** Includes professional time to develop planning/design documents for CTDEEP including VRAP and Site-specific Health and Safety Plan. A voluntary

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response action plan is a scope of work for remedial measures at a property. This plan must be approved by CTDEEP. Qualified Licensed Environmental Professionals (LEPs) will perform the design work. Task 1 Costs will be covered by the Town Cost Share.

***Task 2: Source Area Delineation, Consolidation and Removal:*** Contractual costs include analytical laboratory costs associated with soil/waste characterization, earthwork contractor, soil/waste transportation, and disposal costs. Task also includes cleanup verification testing including professional costs for cleanup verification sampling following hot-spot excavation. Contractual costs include analytical testing. Town's cost share will support contractual costs, and community outreach notification. Cooperative Agreement Share: \$180,500; Town Cost Share: \$36,500

***Task 3 – Community Involvement and Notification:*** For this Task we anticipate holding quarterly community involvement meetings to inform concerned citizens about the project. These meetings will occur in conjunction with the existing community notification the Town does conducts for its EPA assessment grant. Currently, the Town is providing updates on work conducted at in two venues: the Stratford Redevelopment Agency's monthly public meetings, and as part of the Greater Bridgeport Regional Planning Council's brownfields working group, which is also public. We will post meeting materials and project updates on our Town website and notify neighboring residents of upcoming Site work via mailings. Costs assume representation at quarterly meetings, meeting materials and presentation aids. Town cost share includes assistance with public outreach activities (newspaper notification, website postings, etc.). Cooperative Agreement Share: \$250.00 for supplies; Town Cost Share: \$3,600 of in-kind time of the Conservation Administrator.

***Task 4 – Cooperative Agreement Oversight:*** The Reporting task includes the preparation of quarterly program, financial and ACRES reporting to the EPA. The Town will seek to enter a contractual agreement for these services with a grant management professional. Costs are based on approximately 5 hours/month for the duration of the cooperative agreement. Budget also includes travel costs to the EPA's Brownfields Conference for key Town officials central to the Brownfields Program (Conservation Administrator, Economic Development Director, Mayor). Costs also include office supplies for maintaining agreement documents. Cooperative Agreement Share: \$19,250.

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**Budget Table**

<b><u>EPA Costs</u></b>	<b>Task 1</b>	<b>Task 2</b>	<b>Task 3</b>	<b>Task 4</b>	<b>Total</b>
<b>Personnel</b>	0	0	0	0	<b>0</b>
<b>Fringe Benefits</b>	0	0	0	0	<b>0</b>
<b>Travel</b>	0	0	0	4,000	<b>4000.00</b>
<b>Equipment</b>	0	0	0	0	<b>0</b>
<b>Supplies</b>	0	0	250.00	250.00	<b>500.00</b>
<b>Contractual</b>	0	180,500.00	0	15,000.00	<b>195,500.00</b>
<b>Other</b>	0	0	0	0	<b>0</b>
<b>Total</b>	<b>0</b>	<b>180,500</b>	<b>250.00</b>	<b>19,250.00</b>	<b>200,000.00</b>
<b><u>Town Cost Share</u></b>	<b>3,500 (cash)</b>	<b>36,500 (cash)</b>	<b>3,600 (inkind)</b>	<b>0</b>	<b>43,600.00</b>

**c. Ability to Leverage [5 points]**

The Town of Stratford will commit \$40,000 in cash to the cleanup project, as well as \$3,600 of in-kind time from the Town Conservation Administrator to oversee the project and the community notification efforts described in this proposal. This represents more than the 20% required match. A letter from Mayor John A. Harkins is attached committing these funds. The cost share will initially come from the general fund; however, the Town is looking to capitalize a brownfields trust fund through the sale proceeds of the tax foreclosed properties it has come into possession of. While we are not able to accurately estimate how much will be available through this new funding mechanism, if any at all, the general fund will still be the primary source of the committed funds to this project.

Additionally, the Economic Development Department is preparing an application to the Town's Community Development Block Grant Program for a portion of the cost share as well; if awarded, the amount allocated by CDBG will supplant the Town general funds outlined in the commitment letter. CDBG and the trust fund represent alternative sources of the required match, but if they are not fruitful, the general fund will supply the entirety of the match. The additional tax base generated from this project in the future will outweigh the required cost share. We estimate that, once redeveloped, the site could bring approximately \$20,000-\$40,000/year in property taxes back to the tax rolls (exact figures will depend upon the actual re-use of the property).

**3. Community Engagement and Partnerships**

**a. Plan for Involving Targeted Community & Other Stakeholders; and,  
Communicating Project Progress [5 points]**

Through its existing EPA Brownfields Assessment grants, as well as its partnership in the Greater Bridgeport Regional Council's (GBRC) Brownfields Working Group, Stratford has established a solid framework through which it informs and incorporates community input and involvement into its brownfields activities. The Town hosts public workshops and holds public meetings to provide updates to the public and to solicit feedback. Minutes are posted on the Town website (the updates typically are held during the meetings of the Stratford Redevelopment Agency) as well as on the GBRC's website for the working group minutes. Additionally, we have utilized our partnerships with community organizations that have the strongest reach with the stakeholders that are most impacted by brownfields redevelopment. These organizations have supported the project by letting their constituents (residents, business owners, developers and interest groups such as environmental advocates) know of program activity updates through their email lists, newsletters and websites.

Stratford will use this existing framework to continue to attract and incorporate community feedback on the program. The Town is preparing a Year 3 update of its assessment grant work for March/April and will dedicate a significant portion of the agenda after the update to discuss the proposed clean up plan for 2350 Stratford Avenue. Mailings will go out to residents in the immediate area inviting them to the meeting, and meeting notices will be published in the CT Post and the Stratford Patch (our on-line news source). We will also ask our community partners and the Stratford Redevelopment Agency to reach out to their constituents as well to amplify our reach in the community. We are also planning to ask Stratford Public Schools to place meeting notices in the backpacks of school children who live in the targeted community so that their parents and caregivers are informed of the meeting as well. Over 30% of residents in this census tract are age 19 and under...working with the schools will be a critical way of ensuring that parents are involved in the proposed project.

Throughout the project period, we will provide monthly updates on cleanup activities, and listen and respond to concerns from the public about health, safety and community disruption, through the Redevelopment Agency monthly meetings, the regional Brownfields Working Group, and through written updates available online, in the newspaper, and through our community partners.

**b. Partnerships with Government Agencies [5 points]**

Identify which agency or agencies are anticipated to have regulatory jurisdiction over your cleanup and discuss the roles they may have in ensuring your cleanup meets applicable standards or otherwise is protective of human health and the environment. Discuss the roles that state or local health agencies may play in your project or explain why health agency involvement would not be applicable to your project.

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The Town of Stratford will work with the following government agencies on this clean up project:

**Connecticut Department of Energy and Environmental Protection:** The Town routinely works with the CT DEEP on a number of projects within the Town, including our current brownfields assessment and remediation efforts, Raymark contamination and remedy monitoring, habitat restoration at Long Beach West (CT's longest barrier beach and sanctuary for state and federal endangered and threatened bird species) and related environmental projects. The Town will formally notify DEEP before beginning any cleanup activities and will actively seek their input on regulations, procedures and processes. We will also seek their guidance to guard against risks from potential imminent hazards identified through the clean up planning process, liability protections offered as part of their Brownfields program, and participate in the state's Voluntary Remediation Program. The DEEP Commissioner will formally review and approve (in writing) the investigation and remediation of targeted parcels under the provisions of the 133x program, making sure that remediation work is conducted in accordance with the CT Remediation Standard Regulation.

**Stratford Health Department:** The SHD will be involved with all clean up planning and remediation activities to ensure that proper measures are being taken to protect the public health from releases into air, water and soil. The SHD Director is an active part of the Town's Brownfields Program activities and is fully abreast of all work currently being conducted. She will continue in this role through clean up activities funded through this grant.

**Connecticut Department of Transportation:** To the fullest extent necessary, CT DOT will be informed of clean-up activities at the subject site. The back of the property abuts the Metro North railroad tracks, and DOT will need to be informed of work before it begins and throughout the project in the unlikely event that access to the track area is required for clean up activities.

**Greater Bridgeport Regional Council:** As the regional entity responsible for transportation and land use planning, GBRC serves as an invaluable resource for Stratford in its brownfields cleanup and re-development efforts. We will continue to work with GBRC to build our GIS inventory of brownfields as a resource to potential developers, town personnel and community stakeholders interested in the status of brownfields in their communities. GBRC also hosts the regional Brownfields Working Group meetings.

**c. Partnerships with Community Organizations [5 points]**

The Town of Stratford currently works with a strong network of community partners who assist us in reaching and disseminating information to key stakeholders and providing access to capital for clean up and re-development. This network includes the following non profit organizations who have provided letters of commitment for this application (NOTE: commitment letters are forthcoming and are not included in this review draft):

- Community Capital Fund
- Stratford Library Association
- Stratford Chamber of Commerce

**4. Project Benefits [20 points]**

**a. Health and Welfare:** The State of Connecticut designated Stratford as an environmental justice community in January of 2009. Since the majority of Brownfield sites in Stratford are located disproportionately in the South End, the lower income and impoverished segment of the population in Stratford bears the vast majority of the potential health burdens that these sites create. The project seeks to mitigate these impacts in the following way:

By completing the clean-up of 2350 Stratford Avenue, the community will immediately experience the removal of known contaminants from a vacant site that have plagued the neighborhood since 1979. The removal of the contaminated structures and surrounding soil will immediately improve the environmental health of the area, and remove a source of air pollutants that may have contributed to the high asthma, blood lead levels and cancer rates experienced in the neighborhood and the surrounding community.

By completing the clean-up of 2350 Stratford Avenue, the project paves the way for a re-use plan that is highly likely to include both the creation of additional greenspace at the gateway between Bridgeport and Stratford \*and\* local jobs through the commercial redevelopment of the site in a manner that will not contribute to further contamination of the site.

The project will also help bolster current efforts to clean and redevelop the Stratford Avenue corridor by continuing the momentum started by the Two Roads Brewing Company and the Forest City residential development. A third Brownfields clean up success in this area will further advance the Town's goals of making it a healthy and desirable community by reducing blight and improving the approach into the historic district and TCD district.

**b. Environmental Benefits from Infrastructure Reuse/Sustainable Reuse [5 points]**

**i.) Planning, Policies or Other Tools and Examples of Efforts**

The community is aware that the high quality of life that we enjoy is directly related to our preservation of the environment through the conservation of our resources and pollution prevention. For example, the Town recently adopted a Transit Centered Development plan for the one-mile radius around its Metro North Railroad station that encourages the development of higher-density, mixed use residential and commercial development as a strategy to reduce vehicle traffic in Stratford Center, improve road safety and walkability, and reduce air pollutants by encouraging use of mass transit. The Forest City development is one result of these efforts. Additionally, two years ago, the Town completed the removal of over 40 derelict housing structures on Long Beach West, the state's longest barrier beach and a refuge for state and federal endangered and threatened bird species. The U.S. Fish and Wildlife Service dedicated over \$900,000 to complete this effort, which they deemed one of the top priority conservation projects in New England. Efforts are now underway to restore the beach and return it to its natural state. These efforts are in addition to the establishment of the Town's first coordinated effort to rid Stratford of its brownfields in 2011.

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The Town firmly believes this brownfields clean-up project at 2350 Stratford Avenue can be yet another example of preservation of the environment and responsible redevelopment that these goals can be furthered through the redevelopment of this brownfields site. In an effort to redevelop the property in an environmentally sound manner, the Town will stress the use of low-impact development (LID) techniques, green building materials, and smart growth practices during the redevelopment process. Further, the Town will request that green building techniques, such as those described by the U.S. Green Building Council, be emphasized in the redevelopment of the Site. These techniques include: the use of environmentally-friendly building materials/products, the operation and maintenance of building systems to promote overall health, and the incorporation of sustainable designs in new building development. These goals will be reviewed during the design of structures to be planned for the property.

**c. Economic and Community Benefits:**

The clean-up of the subject site will help continue area-wide economic development in an area of Stratford that has suffered most from the exodus of Stratford's manufacturing base. Benefits include:

\*Removal of blighted properties that present quality of life deterrents to mixed use and higher density residential development, including more affordable housing;

\*Creation of job opportunities in the targeted community which is experiencing unemployment rates four times higher than the Town as a whole. The project can potentially create temporary and permanent jobs in the environmental, construction, commercial and retail sectors, and;

\*Return the subject property to the tax rolls after 34 years through the development of new commercial opportunities on the site.

**ii.) Job Creation Potential: Partnerships with Workforce Development Programs [2 points]**

The Town will work with The Workplace, Inc., which serves as the regional workforce development board and operates an EPA Brownfields Job Training Program. While the Town does not have a formal policy regarding local hiring, it is our intention to emphasize in any bid documents that we encourage the use of local labor in local assessment and clean up work and to specifically mention The Workplace, Inc. as a source of local, highly trained labor.

**DRAFT**

**Analysis of Brownfields Cleanup Alternatives – Preliminary Evaluation  
Former Mercer and Sons, Inc. – 2350 Stratford Avenue, Stratford, Connecticut**

**State Tracking Number:**

**Prepared by the Town of Stratford**

**I. INTRODUCTION & BACKGROUND**

This document presents an Analysis of Brownfields Cleanup Alternatives (ABCA) for the property formerly known as the Mercer Coal located at 2350 Stratford Avenue, Stratford, Connecticut. This document has been prepared by the Town of Stratford in association with the filing of an Environmental Protection Agency (EPA) Brownfield Cleanup Grant for 2014. Notice of this document has been published, and this document has been made available for public comments, in accordance with the community relations plan of the EPA Brownfields Grant and requirements of the National Contingency Plan (NCP).

Under the EPA Brownfields Grant, recipients must supply an ABCA that includes:

- Information about the site and contamination issues (i.e., exposure pathways, identification of contaminants sources, etc.) cleanup standards, applicable laws, alternatives considered, and the proposed cleanup;
- Effectiveness, implementability, and the cost of alternatives, including the preferred or proposed clean alternatives;
- A comparative analysis of the alternatives considered; and
- Assessment of whether additional land-use controls will be necessary after the environmental cleanup is complete.

**a. Site Location (address)**

The Site is located at 2350 Stratford Avenue, Stratford, Connecticut (herein referred to as “the Site”)

**b. Site Use(s) and any previous cleanup/remediation**

The site, comprised of one tax parcel, is located at 2350 Stratford Avenue in the Town of Stratford, Fairfield County, Connecticut. The parcel is identified by the Town of Stratford as Map 20.8, Block 15 Lot 3. Encompassing approximately 0.69 acres, the site is developed with one (1) multi-story, wood and masonry commercial building, and a grouping of six (6) reinforced concrete silos previously utilized for coal storage. The Town of Stratford



foreclosed on the property in March 2011 due based on outstanding tax delinquency and is the current deed holder. The current site buildings were constructed between 1924 and 1934. The office building is located along the western property boundary, while the grouping of concrete silos is somewhat centrally located on-site. A paved driveway parking area is located to the west of the office building. Future use of the site is intended for redevelopment. The parcel is bordered by Metro-North railroad tracks to the north, Stratford Sandblasting and Monuments to the west, Stratford Avenue and then Saint Michael's Cemetery to the south, and the Stratford Motor Inn and commercial businesses to the east. The site is secured with a 6-foot high chain link fence since the property was foreclosed on in March 2011.

Historically, the site was utilized for commercial purposes by C.J. Mercer and Sons, Inc. as a coal and bulk oil storage and distribution facility circa 1920s until the mid- to late-1970s. The property has remained primarily abandoned since the mid- to late-1970s. Eight (8) previously registered (circa 1986) underground storage tanks (USTs) were removed from the property in 2011 under the direct supervision of the CTDEEP UST Division. The tanks were located in two general areas located to the east and west of the coal towers, hereinafter referred to as the Tank Farm East and Tank Farm West areas, respectively. To date, remediation that has been completed at the site has been limited to the removal of all of the identified USTs. Additional soil and groundwater contamination associated with the former USTs remains at the site.

**c. Previous Investigations/Environmental Reports**

The following table documents the previous environmental investigations that have been completed at the site as part of the redevelopment and reuse planning:

<b>ENVIRONMENTAL SITE ASSESSMENT</b>	<b>CONSULTANT</b>	<b>DATE</b>
Targeted Subsurface Investigation Report	Loureiro Engineering Associates, Inc. (LEA)	August 2010
Underground Storage Tank Closure Report	Loureiro Engineering Associates, Inc. (LEA)	September 2012
Phase I Environmental Site Assessments (ESA)	HRP Associates, Inc. (HRP)	October 2012
Phase II ESA	HRP Associates, Inc. (HRP)	January 2013
Phase III ESA/Remedial Action Plan (RAP)	HRP Associates, Inc. (HRP)	October 2013



#### **d. Site Assessment Findings**

A Target Subsurface Investigation Report was prepared for the Site by Loureiro Engineering Associates, Inc. dated February 22<sup>nd</sup>, 2010 for the CTDEEP Oil and Chemical Spills Division to address potential contamination associated the former onsite USTs.

As part of the Targeted Subsurface Investigation Report, Ground penetrating radar (GPR) was conducted and anomalies, such as tanks, were noted. LEA noted that fill, consisting of coal slag and cinder, was encountered approximately one (1) to four (4) feet below grade on-site just west of the concrete silos. Petroleum hydrocarbons and MTBE were both noted in groundwater on-site, while arsenic was detected above the surface water protection criteria (SWPC). The shallow overburden groundwater flows to the west, toward Bruce Brook. Chromium, exceeding applicable RSR numeric criteria was noted in soil, likely due to urban fill. LEA recommended additional groundwater monitoring be conducted in order to delineate groundwater contaminant plumes, the removal of all USTs and associates piping, and to further address the urban fill on-site.

An Underground Storage Tank Closure Report, dated September 28, 2012, was prepared for the subject site. This report summarized the activities up to and including UST removal activities conducted by CT DEEP in 2011. In 2006, the CT DEEP Site Assessment & Support (SAS) personnel conducted a limited subsurface investigation in order to identify impacted soil and groundwater. LEA conducted a subsequent investigation which confirmed the CT DEEP findings. A total of nine (9) USTs, and subsequent ancillary piping and contaminated soils were removed from the site in June 2011, including the following: three (3) 30,000-gallon capacity USTs containing #2 heating fuel, one (1) of which was partitioned and contained kerosene; two (2) 10,000-gallon capacity USTs containing gasoline [previous reports document these as heating fuel]; two (2) 4,000-gallon capacity USTs containing #2 fuel oil [previous reports document these as gasoline], one (1) 750-gallon UST containing #2 fuel oil, and one (1) 550-gallon capacity UST containing #2 fuel oil [previous reports document this as gasoline]. It is noted that some confirmatory soil samples detected ETPH exceedances, but these contaminated soils were unable to be removed due to the proximity of the site building, coal silos, and retaining wall.

The Town of Stratford performed a Phase I Environmental Site Assessment (ESA) through the use of funding with associated with the EPA Community Wide Assessment Grant. The Phase I ESA for the Site was completed by HRP Associates dated October 10<sup>th</sup>, 2012. The Phase I report identified twelve (12) Recognized Environmental Conditions (RECs) at the site that required further investigation. The Phase I report recommended that a Phase II ESA be conducted at the site to address the presence/absence of possible soil or groundwater contamination associated with the twelve identified RECs.

The Town retained HRP Associates to conduct a Phase II investigation of the property in October 2012. As part of the assessment, HRP investigated twelve Areas of Concern (AOCs) on the site using the methodology as established in the CTDEEPs Site Characterization Guidance Document. The AOCs that were identified in the formation of the Conceptual Site Model included:



- **AOC 1:** Coal Towers
- **AOC 2:** UST Farm West
- **AOC 3:** UST Farm East
- **AOC 4:** Soil and Demolition Debris Pile
- **AOC 5:** Groundwater Contamination Plumes
- **AOC 6:** Peeling Paint
- **AOC 7:** Sitewide Fill
- **AOC 8:** Potential Septic System
- **AOC 9:** Former Scale
- **AOC 10:** Former Coal Bins
- **AOC 11:** Oily Staining
- **AOC 12:** Miscellaneous Equipment/Drums

The Phase II investigation verified eight (8) Release Areas (RA) at the site. The Phase II identified the following Constituents of Concern (COCs) at the site in either soil or groundwater above the CTDEEP RSR regulatory criteria:

- Metals (Lead, Arsenic, Chromium)
- PAHs (Various Compounds)
- Petroleum Hydrocarbons (ETPH)

As part of the Phase II report recommendations, a RAP and Phase III investigation were prepared for the site in October 2013 in order to delineate the degree and extent of the RAs that were previously identified. As part of the RAP/Phase III investigation, a total of twenty-four (24) borings were installed into six (6) of the eight (8) identified RAs. In addition, a Hazardous Building Materials (HBM) survey was also completed on the existing onsite structures including the coal storage towers and residential building to identify the presence of asbestos, lead or PCBs in building materials. The HBM survey was conducted in anticipation of the demolition of the onsite structure prior to performing the remediation and redevelopment of the property.

The results of the Phase III investigation determined that remedial actions are required in the following release areas as noted:

RELEASE AREAS		STATUS	REMEDIATION ACTION
<b>RA 1</b>	Pesticides in Soil	Closed	Filing of an ELUR; No additional investigation or remediation required
<b>RA 2</b>	Site Wide Polluted Fill	Open	Remedial Action Requires "Hot Spot" Removal and ELUR
<b>RA 3</b>	Lead in Soils surrounding Building	Open	Source Removal of Lead Impacted soils after building Demolition or filing of an ELUR
<b>RA 4</b>	Demolition Building Materials in Fill Pile	Open	Hazardous Waste Profile Sampling and Disposal offsite or reuse onsite as fill
<b>RA 5</b>	Groundwater Plume - East	Open	Natural Attenuation Groundwater Monitoring



<b>RA 6</b>	Groundwater Plume – West	Open	Natural Attenuation Groundwater Monitoring
<b>RA 7</b>	Petroleum Impacted Soils	Open	Source Removal of “Hot Spots” in exceedance of the GBPMC and filing of an ELUR
<b>RA 8</b>	Former Scale	Closed	Source Removal or Filing of an ELUR; No additional investigation required
<b>Pre-Demolition Abatement</b>		Open	Pre-demolition abatement of both the residential building and Coal Towers

**e. Project Goal**

The Site is located along the eastern border of the City of Bridgeport on Stratford Avenue and is situated on one of the major gateways into the Town of Stratford. Future reuses of the property are aimed at increasing the marketability of the gateway corridor into the Town from the current blighted condition. The Stratford Avenue corridor is currently undergoing a revitalization which has been several years in the making. The area is located on the outskirts of Stratford’s new Transit Oriented Center Development District. In addition, two new large scale development projects that have been started on Stratford Avenue include the new Two Roads Brewery and the Forest City Residential Apartments. The exact reuse of the Site has not been determined but the Town plans on working with perspective redevelopers to make sure that Low Impact Development Design features are implemented and that the reuse will serve a need in the adjacent community. The property is currently being marketed by the Town’s Economic Development Department.

The Site is currently zoned for Retail Commercial (RA)

**II. APPLICABLE REGULATIONS**

**a. Cleanup Oversight Responsibility**

The cleanup will be overseen and verified by a Licensed Environmental Professional (LEP) under the Connecticut Department of Energy and Environmental Protection Voluntary Remediation Program (Connecticut General Statutes Section 22a-133x).

**b. Cleanup Standard for Major contaminants**

The Town of Stratford currently anticipates that the CTDEEP Remediation Standard Regulations (RSRs) will be the prevailing environmental cleanup criteria for the subject site. The goal is to have the Site remediated to a residential standard under the RSRs criteria. Specific criteria that apply to the Site under the RSRs include, the Residential Direct Exposure Criteria (RES DEC), the GB Pollutant Mobility Criteria, and the Surface Water Protection Criteria (SWPC).

**c. Laws and Regulations Applicable to the Cleanup**



Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, state environmental law, and town by-laws. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed.

In addition, all appropriate permits (e.g., Call before You Dig, Soil transport/disposal manifests) will be obtained prior to the commencing.

### III. EVALUATION OF CLEANUP ALTERNATIVES

#### a. Cleanup Alternatives Considered

To address contamination at the Site, three different alternatives were considered including Alternative #1: No Action, Alternative #2: Demolition and Select Excavation with Offsite Disposal, Alternative #3: Demolition and Filing of Environmental Land Use Restriction.

#### b. Cost Estimate of Cleanup Alternatives

To satisfy EPA requirements, the Town of Stratford identified the effectiveness, implementability, and cost of each alternative as stated and discussed below.

##### Effectiveness

- **Alternative #1:** A No Action alternative is not an effective alternative since it does not adequately control or prevent exposure of receptors to contamination at the site. Furthermore, a No Action alternative would not help to meet the goal of the town which is the ultimate removal of blight from the site and its redevelopment.
- **Alternative #2:** The demolition of all derelict structures and select excavation of contaminated soils provides the greatest potential for redevelopment of the Site while also eliminating the potential threat to any adjacent sensitive receptors. The removal of select areas of ash and coal fill would require significant investigation to properly delineate the vertical and horizontal extent of the materials. It is likely that there are additional areas of polluted fill located underneath the historic structures at the site. Under Alternative #2, all blight structures and any potential exposure to sensitive receptors would be eliminated.
- **Alternative #3:** The demolition and filing of an Environmental Land Use Restriction on the property would require a full understanding of the final end of the property so that building design schemes could be evaluated. Alternative #3 would reduce to risk to sensitive receptors through the prevention of direct exposure to contaminated soils. However, future building at the site would need to be strictly controlled to prevent the potential for vapor intrusion risks to commercial workers from petrol contamination from the previous underground storage area. To mitigate the vapor intrusion risk, a sub-slab ventilation system may need to be installed under any potential building on the Site.



## **Implementability**

- **Alternative #1:** No Action would be the easiest Alternative to implement since no actions would be conducted at the Site.
- **Alternative #2:** Alternative #2 would require the greatest upfront expenditure of resources since all derelict structures would be removed and all contaminated soils would be excavated for offsite disposal at a regulated facility. Alternative #2 would also require the implementation of a Long-Term Groundwater Monitoring Program to identify and track the petroleum groundwater plume at the site. Groundwater remediation of the identified petroleum groundwater plume would be completed through natural attenuation remediation. This strategy would be moderately difficult to implement.
- **Alternative #3:** The demolition and filing of an Environmental Land Use Restriction on the property would require a full understanding of the final end use of the property so that building design schemes could be evaluated. This alternative would be moderately difficult to implement and would not require the greatest amount of upfront resources. However, long-term ground monitoring costs and the potential monitoring of a sub-slab ventilation system on any potential building would require a long term financial commitment. This strategy would be considered the least difficult to implement since it would not require a large scale excavation of contaminated soil for offsite disposal

## **Cost**

- **Alternative #1:** There would be no costs associated with Alternative #1 (No Action)
- **Alternative #2:** It is estimated that the costs associated with Alternative #2 including the removal of all derelict structures and the removal of the identified contaminated soils would exceed \$300,000. This is the most costly alternative that was considered.
- **Alternative #3:** The demolition and filing of an Environmental Land Use Restriction on the property would require a full understanding of the final end use of the property so that building design schemes could be evaluated. The Cost for Alternative #3 would be approximately \$230,000. This is the second most costly Alternative.

### **c. Recommended Cleanup Alternative**

The recommended cleanup alternative is Alternative #3: Demolition of derelict structures with the source removal of “Hot Spot” contamination and the filing of a ELUR.

- **Alternative #1:** No Action cannot be recommended since it does not address sites risks or the removal of the blight condition on the site.



- **Alternative #2:** The removal of the derelict structures and the excavation of contaminated soils for offsite disposal is preferred cleanup alternative. Alternative #2 would leave the site in a buildable condition without the long-term commitments and monitoring that would be required under Alternative #3.
- **Alternative #3:** The removal of derelict structures and the filing of an Environmental Land Use Restriction would require ongoing monitoring and maintenance of the cap. Although Alternative #3 would remove blight, there would be long-term maintenance costs related to the continued presence of contaminated materials at the site. Alternative #3 would minimize the cost of the removal of wide spread polluted fill while also protecting human health and the environment. Alternative #3 is the preferred remediation strategy since it minimizes the cost while being protective of human health and the environment.

