Town of Boscawen

116 North Main Street, Boscawen, NH 03303 | Telephone: 603.753.9188 | Fax: 603.753.9183

December 3, 2019

Dorrie Paar
Brownfields Coordinator
USEPA Region 1 – Mailcode OSRR07-3
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Dear Ms. Paar:

Boscawen is a rural community located on the western bank of the Merrimack River just north of Concord, the capitol of New Hampshire. Beginning in the 1800s, a mill village developed at the southern tip of Boscawen at the confluence of the Contoocook and Merrimack Rivers along Commercial Street. The mill village operated at its peak between 1850 and 1970 and supported several industries including a saw mill and lumber yard, a coal warehouse, flour production, soap production, corn milling, and grain warehousing and was the largest producer of flour in New England in the early 1900s. The area also supported a leather tannery from 1953 to 1987. All the mills had become vacant by the late 1980s and have sat abandoned for nearly 30 years.

This cleanup grant application is focused on three parcels on Commercial Street, specifically 36 to 56 Commercial Street, that were historically occupied by a sawmill, flour and grist mill and later a tannery. These mills are located along the banks of the Contoocook River and overlook the historical Hannah Duston Memorial Site, the location of the massacre that made Hannah Duston known as the Granite State Heroine. Currently, remnants of the past industrial operations remain in the facility including soap soaking tanks and hide tumbling tanks, industrial salt piles, a former bulk oil storage tank, and numerous floor drains and trenches. Additionally, continued environmental assessment of the properties is complicated by the highly unstable dilapidated buildings.

The Town's goal for redevelopment of the Allied Leather Site is to directly address the key community needs of an aging population, lack of recreational opportunities, and lack of access to locally grown produce and meats. The Town has been working with a private developer to achieve these goals for the Site. Our shared vision for the redevelopment of the Allied Leather Site includes 100 units of senior housing, facilitate an extension of the Northern Rail Trail through the property to connect to the adjacent Hannah Duston Memorial Historic Site/adjacent recreational area and Merrimack Valley Greenway, adding parking at the trailhead so the community has access to the trail as well as a canoe launch to the Contoocook River, and including a permanent area for a long-term farmers market so local residents can have access to locally grown produce and meats.

However, the presence of environmental contaminants have halted the further redevelopment of the Site. Various historical industrial uses including a tannery have likely left a legacy of contamination in soil, groundwater, and building materials. This Cleanup grant will help us address these concerns and allow for its cleanup and redevelopment.
Required information follows:

1. Applicant Identification: Town of Boscawen, 116 North Main St., Boscawen, NH 03303
2. Funding Requested: a. Grant Type: Single Site Cleanup
   b. Federal Funds Requested: i. $500,000
   ii. Boscawen is not requesting a cost share waiver
   c. Contamination: Hazardous Substances
3. Location: Town of Boscawen, Merrimack County, New Hampshire
4. Property Information: Former Allied Leather, 36-56 Commercial Street, Boscawen, New Hampshire 03303
5. Contacts: a. *Project Director*: Alan H. Hardy, Co-Administrator, Brownfields Project Coordinator, Town of Boscawen, 116 North Main Street, Boscawen, NH 03303; (603) 753-9185 (phone); (603) 753-9184 (fax); ahardy@townofboscawen.org (email)
   b. *Highest Ranking Elected Official*: Roger W. Sanborn, Chair, Board of Selectman, Town of Boscawen, 116 North Main Street, Boscawen, NH 03303; 603-753-9188 (phone); (603) 753-9184 (fax);
6. Population : 3,965
7. Other Factors Checklist:

Other Factors	Page #
Community population is 10,000 or less.	1
The applicant is, or will assist, a federally recognized Indian tribe or United States territory.	
The proposed brownfield site(s) is impacted by mine-scarred land.	
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the project/reuse; secured resource is identified in the Narrative and substantiated in the attached documentation.	3
The proposed site(s) is adjacent to a body of water (i.e., the border of the proposed site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them).	1
The proposed site(s) is in a federally designated flood plain.	2, 7
The reuse of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or will incorporate energy efficiency measures.	

8. Letter from the State Environmental Authority: Attached to this letter

We thank you in advance for considering our grant application. If you should have any questions or require clarification on any element of this proposal, please give me a call at (603) 753-9185.

Very truly,

Alan Hardy
Co-Administrator
Brownfields Project Coordinator

cc: *with attachments*

1. PROJECT AREA DESCRIPTION AND PLANS FOR REVITALIZATION

1.a. Target Area and Brownfields

1.a.i. Background and Description of Target Area

Boscawen, originally settled as part of Contoocook in 1734 and later incorporated as Boscawen in 1760, is a rural community (population 3,965) located on the western bank of the Merrimack River just north of Concord, the capitol of New Hampshire. Beginning in the 1800s, a mill village developed at the southern tip of Boscawen at the confluence of the Contoocook and Merrimack Rivers along Commercial Street. The mill village operated at its peak between 1850 and 1970 and supported several industries including a saw mill and lumber yard, a coal warehouse, flour production, soap production, corn milling, and grain warehousing and was the largest producer of flour in New England in the early 1900s. The area also supported a leather tannery from 1953 to 1987. All the mills had become vacant by the late 1980s and have sat abandoned for over 30 years.

The Town of Boscawen has now come to own one of the abandoned mill sites through bankruptcy and owed back taxes and is the subject of this cleanup grant application which includes three adjacent parcels on Commercial Street, specifically 36 to 56 Commercial Street. The Site was historically occupied by a sawmill, flour and grist mill and later a tannery (Allied Leather). These mills are located along the banks of the Contoocook River and overlook the historical Hannah Duston Memorial Site, the location of the massacre that made Hannah Duston known as the Granite State Heroine. The target area for this grant is the residential area immediately surrounding these mills (census block group 038000-3).

1.a.ii. Description of the Brownfield Site(s)

This grant application is the Allied Leather Tannery which is owned by the Town of Boscawen and contains three former industrial lots located at 36 to 56 Commercial Street at the southern end of Boscawen. Beginning in 1790, the south side of Commercial Street was developed with a grist mill, by 1820 with a sawmill, and by 1850 with a woolen mill. The sawmill was later redeveloped with a flour and grist mill that would become the largest producer of flour in New England by 1900. The flour mill operated through the 1950s, when it was converted to a tannery. By 1953, the property was owned by Brezner Tanning Corp, of which Allied Leather was a subsidiary. Allied Leather was comprised of the Site and its buildings, in addition to the buildings on the three adjoining parcels south of the Site which are under private ownership. Allied Leather operated at the Site through 1987 when the company went bankrupt. The property was transferred to a holding company and later to the Town in 2009 for owed back taxes. The property has been vacant and unmaintained since 1987 and is in a highly dilapidated state. Please note that residential houses line the north side of Commercial Street.

Based on a previous Phase II Environmental Site Assessment completed in 2017 and 2018, source areas and associated contaminants of potential concern at the Site include PCB Bulk Product Waste and Remediation Waste within the Site building, asbestos and lead paint within the Site buildings, polycyclic aromatic hydrocarbons (PAHs) and metals (arsenic and lead) in soil throughout the Site, other regulated wastes throughout the building, as well as floor drains and discharges that have not been able to be safely assessed within the dilapidated building. Adjacent to the Site to the south are three other former tannery buildings currently unoccupied and in severe disrepair, and a former rail line support facility to its north. Both of these properties are in private ownership and are located within the residential neighborhood of Commercial Street.

1.b. Revitalization of the Target Area

1.b.i. Reuse Strategy and Alignment with Revitalization Plans

The Town's reuse strategy for redevelopment of the Allied Leather Site is to directly address the key community needs of an aging population, lack of recreational opportunities, and lack of access to locally grown produce and meats. The Town has been working with a private developer (Mark Piontkowski) to achieve these goals for the Site. The planned reuse includes 100 units of senior housing (25% of which are estimated to be below market rate), facilitate an extension of the Norther Rail Trail (which currently ends ¼ mile north from the Site) through the property to connect to the adjacent Hannah Duston Memorial Historic Site/adjacent recreational area and Merrimack River Greenway Trail to be constructed in Concord south of the Site, adding parking at the trailhead so the community has access to the trail as well as a canoe launch to the Contoocook River, and including a permanent area for a long-term farmers market so local residents can have access to locally grown produce and meats. The Site is also located within the 100-year floodplain. The remediation of contaminated soils at the Site will protect from erosion of contaminants into the River. The design of the Site will also include proper erosion and control measures, and hardscaping that is appropriate for use within a floodplain.

This reuse is directly aligned with the Town's Revitalization Plans. The Town of Boscawen is a small rural community focused on sustaining manageable growth with regard to an aging population while preserving the livability, enjoyability, safety, health, and affordability of the Town. Town goals identified in its most recent Master Plan align with the planned reuse of the Site that will further advance: 1) maintaining and enhancing the Town's sense of community and identity; 2) expanding safe, decent, and affordable housing by encouraging the development of senior housing within the Town proper; and 3) providing opportunities for recreational enjoyment of the Town's natural resources by Boscawen citizens. (add how stakeholders involved in reuse planning)

In July 2016, NH State Legislators met with stakeholders to discuss improvements to the Hannah Duston Memorial island adjacent to the Allied Leather Site. Plans are in place for Pan Am, the owner of the railroad servicing the site, to abandon this section of line down to Concord. This would allow for expansion of the existing Northern Rail Trail from its current terminus on River Road through the Hannah Duston Memorial island. The rail trail would then connect with the Merrimack Valley Greenway on the Concord side of the Contoocook River. Removing the eyesore of the dilapidated mills would greatly add to the experience of riding the rail trail as well as providing a safe place to stop and admire the confluence of the two rivers. Improvements to the Allied Leather Site will only increase the usage of the Memorial, island, and rivers by making the area feel safer for recreational use, and will significant make the area along Commercial Street more desirable for continued revitalization.

1.b.ii. Outcomes and Benefits of Reuse Strategy

Our reuse strategy will have the following direct economic and non-economic outcomes and benefits include:

Economic Benefits: The completion of the cleanup and redevelopment will lead to an estimated $10 million in private investment in senior housing and 30 temporary construction jobs. It will

also lead to an estimated $280,000 in additional property taxes per year. The catalyzing economic effect to redevelop the other surrounding properties in the target area will be much higher.

Non-Economic Benefits: The redevelopment of the Site with a permanent Farmers Market and trailhead and trail connection to the Northern Rail Trail, Merrimack Valley Greenway, and the Hannah Duston Memorial Historic Site will provide access to our target community for increased exercise and healthy locally grown fruits and vegetables options that can reverse the incidences of obesity. The project will also provide a direct linkage for the residents of Boscawen to the Contoocook and Merrimack River as well as connecting to over 58 miles of recreational opportunity. This project will truly exemplify a Brownfields success story by transforming a contaminated and blighted property into one that no longer threatens, but enriches, the lives of the target community.

1.c. Strategy for Leveraging Resources

1.c.i. Resources Needed for Site Reuse

This project will leverage or has the ability to increase the availability of the following funds. Documentation of firm leveraged funds are documented in **Attachment 2**.

- Private Funds – Estimated $10 million in investments by the private developer (Mark Piontkowski) for redevelopment of the Site for senior housing.
- NH Legislature – Passed House Bill 1397 to establish a committee to study improvements to adjacent Hannah Duston Memorial and study feasibility of connecting a portion of the Site/Hannah Duston Memorial to the Northern Rail Trail system.
- Northern Rail Trail – Invested $700,000 in funds to extent the trail to Boscawen. Is currently working to extend it the final ¼ mile to Site and adjacent Hannah Duston Memorial.
- CNHRPC Brownfields Assessment Program - $84,000 in Brownfields Assessment funds from the Central NH Regional Planning Commission (CNHRPC) for Phase I ESA, Phase II ESA and Market Study.
- NHDES Brownfields Cleanup RLF – The NHDES's Brownfields Revolving Loan Fund can be used to provide an RLF sub-grant (up to $200,000) to complete the cleanup work at the property.
- CRDC Brownfields Cleanup RLF - CRDC has an EPA funded Brownfields Revolving Loan Fund that could be leveraged to assist with the cleanup of the Site. CRDC has other funds in addition to their Revolving Loan Fund that can be used during redevelopment. Subgrants would be available for the project in amounts up $200,000 to support this project.
- Community Development Block Grants - The CDBG program will be leveraged to provide up to $500,000 to complete infrastructure and facility improvements at the Site. Recognizing that the target area contains more than 50% low to moderate income residents, the Town has been very successful at receiving and leveraging this program.

1.c.ii. Use of Existing Infrastructure

The redevelopment of the Allied Leather site will utilize the existing available infrastructure along Commercial Street including roadways, water, sewer, phone and internet. Recognizing the former industrial use of the former Allied Leather Site, adequate capacity of this infrastructure is available and is not required to be upgraded. CDBG funds as well as private investment ($10 million) will provide resources necessary to connect this existing adjacent infrastructure to the Site.

COMMUNITY NEED AND COMMUNITY ENGAGEMENT

2.a Community Need

2.a.i The Community's Need for Funding:

Boscawen is a small poor town adjacent to Concord, the capitol of NH (population of only 3,965). The residents in the target area (Census Block 038000-3) are young people (average median age of 33 compared to 42 for NH) who are struggling with high poverty (22.8% compared to 6% for NH), low wages ($48k median household income compared to $66k for NH), and low education attainment (14.8% in Boscawen have achieved Bachelor's degree compared to 34% for NH). Lastly, while the target area is relatively young, the residents in the Town of Boscawen (and New Hampshire as a whole) contains an aging population (Boscawen has median age of 43 compared to US average age of 37) as New Hampshire is one of the oldest population states in the US. As many seniors begin to need to downsize, the need for affordable senior housing is at a crisis level. With the vacancy rate in NH as low as 1%, the need for affordable housing (especially senior housing) is paramount. The redevelopment of Allied Leather can directly address this need. However, the cleanup costs are significant ($600,000) and given the Town's small size as well as Boscawen's cash strapped residents, the Town just does not have the resources to address the cleanup without further assistance.

2.a.ii Threats to Sensitive Populations

2.a.ii.(1) Health or Welfare of Sensitive Populations

The reuse of the Allied Leather Site for mixed uses including senior housing and river access will directly address negative impacts to the sensitive populations in the target area in two primary ways. While the Town of Boscawen borders both the Contoocook and Merrimack Rivers, it only has three recreations parks. Two of these are baseball fields and not readily used by the general public, and the third, the Hannah Duston Memorial Historic Site, is situated on an island adjacent to the Allied Leather Site. However, access to the rivers and this memorial is blocked due to the mill buildings along Commercial Street as well as an active rail line that runs along the length of the Merrimack River in Boscawen. In addition, lack of access to recreations sites is a key community need as obesity rates for adults in New Hampshire (no data is available for Boscawen) have climbed from 10% in 1990 to 27% in 2016.

Second, as stated above, there is a housing crisis in NH (1% vacancy rate). Many seniors want to downsize from larger homes while being allowed to age in place. There is also currently a mismatch in housing stock as 3 bedroom units dominate the rental market, however, the demand for senior housing is predicted to double from 2010 to 2025 (2 bedroom units). This is complicated by the fact that seniors have high rates of disability, lower median income, and savings. This combined with the declining caregiver population in the state is forcing many seniors to move away from their hometown including friends and family due to lack of available rentals. This project will help provide needed senior housing for Boscawen's seniors.

In addition, the stress of poverty and lower educated population struggling to obtain well-paying jobs augments the growing drug problem in the state of New Hampshire, and Boscawen is one of the growing number of New Hampshire towns that has experienced drug related deaths in 2018. Abandoned, blighted and minimally traveled locations in Town become hotspots for illegal drug activity. Today, the vacant dilapidated buildings that line the Contoocook River in the vicinity of the Site have bricks periodically slough from the buildings' facades, and while there is a fence

around the facility it remains a public safety and fire concern. The blight minimizes traffic to the area, which encourages illegal activity. In fact, one of the Allied Leather buildings burned down in January 2002 as a result of vandalism. This project will remove the blight associated with the Site as well as resultant illegal activity in the target area.

2.a.ii.(2) Greater Than Normal Incidence of Disease and Adverse Health Conditions

Indirectly, our Brownfields have led to decreased access to recreational activities and local grown produce with resultant obesity and negative health impacts. Research shows inadequate fruit and vegetable consumption is a risk factor for being overweight and obese, both of which are associated with an increased risk for chronic diseases and conditions such as coronary heart disease, type 2 diabetes, some cancers, high blood pressure, stroke, liver disease, and gallbladder disease. In 2011, 4.0% of New Hampshire adults had a history of heart attack, 2.6% had a history of stroke, and 8.7% reported having been diagnosed with diabetes (NH Behavioral Risk Factor Surveillance Survey, 2011). The prevalence of these conditions was significantly higher among obese adults when compared with adults reporting a healthy weigh. The risk factors from obesity combined with the risk factors from potential impacts from environmental contamination compounds the health risks in our target population. The Allied Leather project will directly address this.

2.a.ii.(3) Disproportionately Impacted Populations

The target area is a low-income, young neighborhood. The area suffers from a lack of investment and resultant deteriorating condition of the structures. This leads to unsafe conditions or perceived unsafe conditions for residents and visitors, and, as noted in the previous section, contribute to increased drug use, vandalism and crime. This disproportionately impact lower income persons who have no other option but to stay living in poor and sometimes dangerous conditions. When combined with the negative health impacts from contaminants at the Site, it is easy to see that the negative impacts associated with these Brownfields properties are an environmental justice concern for these low to moderate income citizens.

2.b. Community Engagement

2.b.i & ii. Project Partners & Project Partner Roles

In additional to the programmatic and technical support provided by the NH Department of Environmental Services and EPA the following project partners will also be leveraged:

Organization	**Point of Contract (name, email & phone)**	**Description and Role**
Friends of the Northern Rail Trail	insert	Organization creating 58 miles of rail trail from Lebanon to Boscawen, NH. Will be lead organization in extending final ¼ mile of trail to the Site and Hannah Duston Memorial. Will also serve on Advisory Committee.

Central NH Regional Planning Commission	Matt Monahan mmonahan@cnhrpc.org (603) 226-6020	Regional planning organization that is existing Brownfields Assessment Grantee that will provide grant programmatic support to Town, participate on Advisory Committee, and will provide additional Brownfields assessment funds required to conduct Pre-Design Investigation to delineate extent of contaminated soil requiring disposal.
Boscawen Historical Society (add senior group instead?)		Represents current historical interests from interpretation of pre-history to future development of historic sites in town. They will serve on the Advisory Committee. Is also actively involved in the rehabilitation of the adjacent Hannah Duston Memorial to enhance tourism in the area.
Capital Regional Development Council (CRDC)	Stephen Heavener sheavener@crdc-nh.com (603) 496-1875	CRDC is a creative resource for small business financing, real estate development and technical assistance to help jump-start local economic development projects. CRDC will partner with Boscawen to serve on the Advisory Committee and offer up to $200,000 in financial assistance through Brownfields Cleanup RLF loans and grants for eligible Brownfields sites.

2.b.iii. Incorporating Community Input

Our plan to engage the community includes formation of a Brownfields Advisory Committee (BAC) including above community organizations, the EPA and the NH Department of Environmental Services representatives which will meet on a quarterly basis; hosting a volunteer day along Commercial Street to clean up garbage, remove brush, and improve the appearance of the area; conducting a Public meeting to discuss the draft Analysis of Brownfields Cleanup Alternatives (ABCA); and through monthly updates at Board of Selectman meetings. A multimedia approach will be employed to advertise meetings, encourage community participation and provide responses to community concerns, including announcements via local newspaper, e-mail, and the Town of Boscawen website as well as personal door to door invitations for residents of Commercial Street. In addition, Boscawen will use our Facebook page and Twitter account to disseminate instant news about the project including meeting dates and times. Please note that 97% of residences in the target area speak English, therefore translation of material into other languages will be done as needed. In addition, any other special needs (handicap, etc.) will be accommodated during the meeting. All public forums/meetings will be held in the Boscawen Town Hall and be held at a time where the working public will have opportunity to participate.

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

3.a. Proposed Cleanup Plan

The Analysis of Brownfields Cleanup Alternatives (ABCA) prepared for the former Allied Leather Site was prepared (attached) and includes: 1) the removal of PCB contaminated building materials and associated debris within the electrical room of the building; 2) the abatement by demolition of asbestos and lead paint on the building structures; 3) excavation and off-site disposal of an

estimated 500 cubic yards of PAH and lead-contaminated soil from within the floodplain; and 4) site restoration including installation of a engineered barrier system over residually contaminated areas. Due to the dilapidated condition of the building, volume of soil that requires excavation will be confirmed through a Predesign Investigation that will further characterize the nature and extent of impacted soil and confirm soil volumes requiring excavation and disposal. The current estimated cost to implement the above remedial tasks is about $500,000, excluding engineering and QEP oversight.

Please note that each of these cleanup actions will be completed in accordance with Toxic Substances Control Act (TSCA) 40 CFR Section 761 (PCBs); New Hampshire DES Env-Or 600 (Soil Remediation Standards), NHDES Env-A 1800 (asbestos), and Env-Hw 100-1200 (lead paint and other wastes disposal). During cleanup activities and building abatement, engineering controls will be utilized, including area containment during asbestos and lead paint abatement, dust suppression during soil removal activities, and the use of temporary fencing to protect the public during construction activities. Contaminated soil would be brought to the closest appropriately licensed waste landfill or treatment facility for disposal/recycling.

Environmental engineers will specify the appropriate handling and disposal of all hazardous materials and would continue to monitor the site after cleanup is complete in accordance with NHDES requirements. Areas with excavation and contaminated soil removal will be back filled with clean soil and raised back to normal ground levels. The community involvement portion of the project will be used to inform area residents of work to be completed. Once remediation is completed, a remediation summary report will be submitted to the NHDES. A "Certificate of Completion" will be obtained from the NHDES documenting that the cleanup was completed in accordance with state standards.

3.b Description of Tasks/Activities and Outputs

3.b.i, ii, iii, iv. Project Implementation, Anticipated Project Schedule, Task/Activity Lead, & Outputs

Task Activity: 1. Cooperative Agreement Oversight

i. Project Implementation; Discussion of EPA Funded Activities:
    a. Form Brownfields Advisory Committee
    b. Competitively Bid Services for Qualified Environmental Professional (QEP)
    c. Quarterly ACRES Reporting including MBE/WBE Reports
    d. Attend Brownfields Conference
    - Non-EPA grant resources needed to carry out task/activity: None

ii. Anticipated Project Schedule: Summer/Fall 2020; reporting ongoing

iii. Task/Activity Lead(s): Alan Hardy/Kellee Easler (Boscawen)

iv. Outputs: EPA Quarterly Reports, MBE/WBE Reports, RFQ

Task Activity: 2. Community Engagement

i. Project Implementation; Discussion of EPA Funded Activities:
    a. Draft Community Relations Plan (CRP)
    b. Facilitate Quarterly Brownfield Advisory Committee Meetings
    c. Host Public Meeting for Draft ABCA
    d. Conduct Volunteer Day on Commercial Street
    a. Monthly Updated a Board of Selectman's Meetings

▪ Non-EPA grant resources needed to carry out task/activity: None ii. Anticipated Project Schedule: Ongoing iii. Task/Activity Lead(s): Alan Hardy/Kellee Easler (Boscawen) iv. Outputs: CRP, Advertisements, Sign in Sheets, Meeting Minutes, News Articles
Task Activity: 3. Cleanup Activities i. Project Implementation; Discussion of EPA Funded Activities: a. PCB remediation of building materials and debris b. Abatement of asbestos and Lead by full component removal c. Removal and offsite disposal of contaminated soil b. Site restoration and installation of engineered barrier system ▪ Non-EPA grant resources needed to carry out task/activity: None ii. Anticipated Project Schedule: Spring/Summer 2021 iii. Task/Activity Lead(s): QEP with support from Town iv. Outputs: Daily Construction Reports, Certified Payrolls, Waste Disposal Documents
Task Activity: 4. QEP Services i. Project Implementation; Discussion of EPA Funded Activities: a. Draft Analysis of Brownfields Cleanup Alternatives (ABCA), Quality Assurance Project Plan (QAPP), TSCA PCB Cleanup Plan, and Bidding Plans and Specifications b. Conduct Public Bidding of Cleanup c. Oversee Remediation c. Submit Remediation Summary Report ▪ Non-EPA grant resources needed to carry out task/activity: Conduct Pre-design Investigation to confirm soil quantities requiring disposal ii. Anticipated Project Schedule: Fall/Winter 2020 until project completion iii. Task/Activity Lead(s): QEP iv. Outputs: ABCA, QAPP, TSCA PCB Cleanup Plan, Bidding Documents, Remediation Summary Report, Certificate of Completion from NHDES

3.c Cost Estimates

Allied Leather Brownfields Cleanup Budget					
Budget Categories	Task I) Cooperative Agreement Oversight	Task II) Community Engagement	Task III) Cleanup Activities	Task IV) QEP Services	Total
Personnel	$8,000	$5,000	$4,000	$4,000	$21,000
Travel	$3,000	$0	$0	$0	$3,000
Equipment	$0	$0	$0	$0	$0
Supplies	$0	$0	$0	$0	$0
Contractual	$6,000	$6,000	$400,000	$64,000	$476,000
Total Direct Costs	**$17,000**	**$11,000**	**$404,000**	**$68,000**	**$500,000**
Indirect Costs	$0	$0	$0	$0	$0

Total Federal Funding	**$17,000**	**$11,000**	**$404,000**	**$68,000**	**$500,000**
Cost Share (20%)	$0	$0	$100,000	$0	$100,000
Total Budget	**$17,000**	**$11,000**	**$504,000**	**$68,000**	**$600,000**

Development and Application of Costs: Task 1 – Cooperative Agreement Oversight – We have budgeted 160 hours of City staff time at $50/hour ($8,000) as well as 60 of QEP time at $100/hour ($6000) to oversee and conduct necessary reporting for the grant. Two staff from the Town will also attend the next EPA Brownfields Conference ($3,000 in travel).

Task 2 – Community Engagement - We have budgeted 100 hours of City staff time at $50/hour ($5,000) as well as 60 hours of QEP time at $100/hour ($6,000) to perform community involvement tasks.

Task 3 – Cleanup Activities – An estimated 25 tons of TSCA regulated PCB waste (contractor estimate of $50,000) as well as 1,000 tons of comingled PCB, lead and asbestos building debris will require removal and disposal (contractor estimate of $250,000). An estimated 500 cubic yards (i.e. approx. 750 tons) of PAH, arsenic and lead contaminated soil requires removal and disposal (contractor estimate of $100,000). The City will support with the cleanup with coordinating with local utilities, assist with site security, and attending weekly contractor meetings during cleanup. We have budgeted 80 hours of City staff time at $50/hour ($4,000). Lastly, the installation of the engineered barrier over residual soil contamination and associated site restoration will serve as the 20% match including backfilling, marker layer, loaming, and seeding (contractor estimate of $100,000).

Task 4 – QEP Services - The fourth task will consist of 350 hours QEP time at $100/hour ($35,000) to develop initial plans, remediation and site restoration design, state and local permitting, and coordinate the bidding of contract documents. We have budgeted 300 hours at $80/hour ($24,000) for overseeing cleanup activities, coordinating the cleanup to the NHDES and EPA, as well as document federal bidding requirements (Davis Bacon Act). Finally 50 hours at $100/hour ($5,000) is budgeted to remediation summary reporting, preparation and filing of any required deed notices, and long term groundwater management plans, etc. We have also budgeted 80 hours of City staff time at $50/hour ($4,000) to meet with QEP, review documents, and file Deed Restriction.

3.d. Measuring Environmental Results

Boscawen's plan for tracking and measuring progress towards achieving the expected project outputs and outcomes will include using the EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) database and EPA Quarterly reports. The ACRES database is used to track the expected project outcomes presented in **Sections 3.b.iv**, including jobs created, other public funds leveraged, private investment dollars leveraged, and acres of greenspace created. The ACRES database will be updated on a quarterly basis, in conjunction with the submittal of the EPA quarterly reports, and this practice will continue once cleanup and redevelopment activities are initiated.

4. Programmatic Capability and Past Performance

4.a Programmatic Capability

4.a.i, ii. Organizational Structure & Description of Key Staff

The Town of Boscawen has a long history of successfully managing federal and state grants in order to implement successful infrastructure projects. For example, the Town managed the removal of Boscawen/Canterbury Bridge on behalf of both communities under a Memorandum of Agreement. The $306,000 project utilized NH Department of Transportation (NHDOT) State Bridge Aid to implement the project and was considered by NHDOT a great example of collaboration among communities.

As part of this experience, we have developed a good system for efficiently and effectively managing, tracking, administering, and reporting on projects federal grants. This oversite was provided by the affected Department Head, the department staff, who maintained daily records and provided progress reports, the Town Accountant and Town Treasurer, who both oversaw the financing aspects and the Town Co-Administrator, who reviewed and advised the Selectmen on the status of the projects based on the compilation of all the reports.

To assist with the programmatic management of this project, Boscawen has partnered with the Brownfields staff of Central NH Regional Planning Commission (CNHRPC). This team will ensure the timely and successful expenditure of funds and completion of all technical, administrative, and financial requirements of the project. The assessment of the Site is under the management of Mr. Alan H. Hardy. Mr. Hardy has over 10 years of experience as a Co-Administrator of the Town. He has recently managed various important projects including the removal of the Canterbury-Boscawen Bridge, a NH-Department of Transportation reconstruction/construction project to restore and create new drainage systems for the Forest Lane subdivision, a CDBG funded project and is actively involved in a corridor study for the main street of Boscawen, King Street. This project has an overall goal to improve the travel corridor, King Street, which is made up of Route 3 & 4. Mr. Hardy will be supported by Mr. Matthew Monahan of CNHRPC to provide programmatic support of the grant. Mr. Monahan is currently the project manager of the CNHRPC Brownfields Assessment Program. He will also be supported by Mr. Dean Hollins, the Director of Public Works. Mr. Hollins has over 25 years' experience implementing infrastructure projects for the Town of Boscawen.

4.a.iii. Acquiring Additional Resources

Boscawen believes in a competitive procurement process and generally issues a Request for Qualifications (RFQs) to solicit consultant responses. The RFQs are reviewed by the Advisory Committee and interviews of the top submittals/firms are conducted. The selection of a consultant will provide Boscawen with the technical expertise and resources to achieve success and complete this wonderful project. In addition, the specific cleanup work will be publicly bid by the QEP.

4.b Past Performance and Accomplishments

4.b.ii. Has Not Received an EPA Brownfields Grant but has Received Other Federal or Non-Federal Assistance Agreements

1. Purpose and Accomplishments

The Town of Boscawen has received and successfully managed several federal and non-federal funded assistance agreements. The five most recent grants and associated accomplishments include:

- $306,000 NHDOT State Bridge Aid to remove the Boscawen/Canterbury Bridge between Boscawen and Canterbury. [Add Outcomes…]
- $481,370 in American Recovery and Reinvestment Act funds from NHDOT for Sidewalk improvements in North Main Street [Add Outcomes…]
- $74,396 in Transportation Enhancement (TE) funds from NHDOT for additional sidewalk improvements to North Main street. [Add Outcomes…]
- $500,000 Community development Block Grant (CDBG) for storm water drainage improvements to Forrest Lane in Boscawen. [Add Outcomes…]
- $12,000 in CDBG funds to study cooperative infrastructure between private owner and Town at the Woody Hallow mobile home park in Boscawen. [Add Outcomes…]

2. Compliance with Grant Requirements

We are currently in compliance with the terms and conditions of our agreements as well as budgets and schedules. For each of our grants, we have successfully met and complied with all reporting requirements, submitted final acceptable technical reports, and reported on our successful progress towards achieving the results under these agreements.

DRAFT PRELIMINARY ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES
ALLIED LEATHER SITE, BOSCAWEN, NH

1. Introduction & Background

1.a. Site Description & History

1.a.i. Site Name and Location

Allied Leather Site, 36 to 56 Commercial Street, Boscawen, NH (the Site).

1.a.ii. Site Description

The Site is comprised of three parcels of land totaling 1.38 acres and is shaped as an elongated rectangle east of Commercial Street and west of the Contoocook River. The Site is developed with two vacant, dilapidated buildings known as the flour building and the soap building, which are connected by a generator room. The Site buildings are connected via shared walls; both have fallen into severe disrepair and are deemed unsafe to enter. The brick façade of the northeastern half of the flour building is highly degraded and crumbling, and most of the roof and a large portion of the street-side wall of the soap building were destroyed. A third building was located northeast of the current buildings and was destroyed by fire in January 2002. Building debris remains within the footprint of the former building. The Boscawen Assessing Office property cards indicates asbestos on hot water pipes and that the buildings are unsafe to be around.

The interior of the soap building still contains a cut aboveground storage tank (AST), several large wooden vertical ASTs of unknown prior use, and numerous floor drains, grates, vaults, and other residual equipment. The flour building interior is unable to be fully inspected because it is unsafe but appears primarily empty.

The remaining exterior of the Site is heavily overgrown. The buildings are enclosed with a chain link fence to inhibit easy access and trespassing. The Site is located within an area that floods annually along the river. In the spring the highwater mark is in close proximity to the back side of the current Site buildings.

1.a.iii. Site History

The Site was first developed as a sawmill and associated lumberyard in the 1820s and used for this purpose through approximately the mid-1830s. The flour building was constructed in two parts: the brick portion in 1837 and the wooden portion in 1857. The soap building and former burned building were also constructed in 1837. The Site buildings were originally used as a corn mill by John H. Pearson & Co., then Barron, Dodge & Co., then Whitcher & Stratton, and then Stratton & Co (later known as Stratton & Co. Millers). The current flour building was comprised of a flour mill in the western half and a grain warehouse in the eastern half. As of 1928, a coal warehouse was located in what is now the soap building, which was likely used to power an independent electric plant located between the soap and flour buildings. Additionally, an industrial canal was located west of what would later become Commercial Street.

By 1953, the Site was owned by the Brezner Tanning Corp of which Allied Leather was a subsidiary. Allied Leather was comprised of the Site and its buildings, in addition to the buildings on the three adjoining parcels southwest of the Site and the main tannery on nearby Canal Street in adjoining Concord. Information obtained during the Phase II ESA indicates the soap building

was used for soap making, and its namesake was not related to the tanning soaping process. The timing of the soap making process is not known. The Site has been vacant since Allied Leather went bankrupt in 1987. It was transferred to a holding company in 1997 and acquired by the Town in 2009 for owed back taxes.

1.b. Prior Site Assessment Findings

A Phase I Environmental Site Assessment was completed for the property as part of Central New Hampshire Regional Planning Commission's Brownfields Assessment Program to identify environmental concerns that would need to be considered during the redevelopment process. Based on reviews of historical sources, environmental databases, interviews, information provided by the Town of Boscawen, Site reconnaissance, and judgement by the Environmental Professional, five recognized environmental conditions (RECs) and four environmental findings were identified. A Phase II ESA was completed to assess the identified RECs and findings and concluded the following:

- **REC #1 – Likely polycyclic aromatic hydrocarbon (PAH), lead [and asbestos] impacts from leaching and deposition from building fire debris remaining onsite: PAHs CONFIRMED; however, a release of lead and asbestos from the burn debris is DISMISSED**. Surface soil samples CA-SS-11 and CA-SS-12 were collected from soil underlying the burned building debris, which was comingled with burned wood fragments and debris. PAHs exceeding the NHDES Soil Remediation Standards (SRSs) were detected. Therefore, PAHs likely associated with the burn debris are confirmed. Lead concentrations are well below the NHDES SRS and asbestos was not detected.

- **REC #2 – Observed petroleum release and threat of further release from cut AST in the soap building: bulk oil storage in the AST and threat of further release is DISMISSED, but evidence of a petroleum release is CONFIRMED.** A release of petroleum was confirmed through visual observation of free product; therefore, subsurface soil around the perimeter of the soap building (CA-SB-1 through CA-SB-3), standing water in the cut AST base (sample CA-AST-SW-1), floor debris beneath the adjoining tank cradle (CA-SS-2), and surface soil outside the nearby door (CA-SS-3) was sampled. The standing water in the AST contained volatile organic compounds (VOCs), but at concentrations below the Ambient Groundwater Quality Standards (AGQS) indicating the overflow from the tank where free-product exists is not likely to be contributing to potential groundwater impacts at concentrations that would exceed the AGQS. Results for CA-SS-3 contained trace PAHs and low-level total petroleum hydrocarbon (TPH) indicating the petroleum release does not appear to have migrated out the nearby door. However, elevated PAHs above the SRSs and the presence of TPH (below the SRS) in CA-SS-2 is further evidence of a petroleum release. PAHs exceeding the SRSs are present in the subsurface at CA-SB-1 just outside the soap building from the AST; however, review of diagnostic ratios for CA-SB-1 indicate the source appears to be more pyrogenic (see **Table 5**) but smaller chain PAHs (e.g., naphthalene) are still present, which would indicate a petrogenic source. Based on these results, there is confirmed evidence of a petroleum release and the extent of PAHs (whether from the petroleum source or otherwise) remains a data gap.

- **REC #3 – Possible leaching to groundwater and basement soil from large piles of an industrial salt or other unknown crystalline substance in the basement of the flour building is DISMISSED; however, non-hazardous water quality related impacts to groundwater and surface water are not known.** The piles showed evidence of weathering that would indicate dissolution of the substance from water dripping on to the

piles due to the exposure of the interior of the buildings to the elements. To assess if the dissolving piles represented a release, CA-SS-10 was collected from the piles. Results indicated a neutral pH, and barium, chromium, and lead were detected but at concentrations below the SRSs. However, because evidence remains that the salt piles are being gradually leached by rainwater/snowmelt through the building, other non-hazardous potential impacts to groundwater and surface water quality are unknown.

- **REC #4 – Release of asbestos and future threat of release to the environment of hazardous building materials is CONFIRMED.** Due to the heavily degraded condition of the Site buildings, there is a pathway to the environment for any hazardous building materials that are not secure, or become dislodged, in or on the building. ACM, lead-containing paint (LCP; any detection of lead in paint), and Toxic Substances Control Act (TSCA)-regulated PCBs are present as indicated below for Environmental Finding #1. Sample results of floor debris in the generator room contained high PCBs (CA-SS-7 and CA-SS-8) and metals (CA-SS-21) concentrations, possibly due to comingled paint chips. Therefore, the confirmed presence of hazardous building materials and the deteriorating condition of the building that is already exposed to the elements is a continued threat of release.

- **REC #5 – Threat of release of unknown content from five process ASTs/soaking vats in the soap building due to unknown structural stability is DISMISSED.** The five (5) wooden ASTs were further inspected as part of the supplemental reconnaissance and found to be empty by viewing through a previously unidentified window at the base of each tank. Additionally, results of a sample intended to assess possible releases from these tanks to the floor drain (CA-SS-5), indicated only low levels of analyzed compounds below their respective SRSs.

- **Environmental Finding #1 – Suspected presence of hazardous building materials, including asbestos, lead paint, and PCBs due to the age and use of the Site buildings is CONFIRMED**. Asbestos was detected in pipe insulation sampled from 10 locations. Approximately 370 linear feet are estimated to present at the Site, both intact on pipes and comingled with debris on floors. The top two floors of the flour building were not inspected and may contain additional asbestos thermal system insulation (TSI). Because all white pipe insulation that was observed was sampled and found to contain asbestos, all white pipe insulation at the Site should be considered ACM. Asbestos was also detected in beige roofing over the generator building. This area of roofing had collapsed to the floor of this building and was also comingled with floor debris.

  TSCA-regulated PCBs were identified in yellow paint on handrails and gray paint on stairs in the generator room. Based on follow-up observations, gray paint was also observed to possibly be present on floors and walls within the main rooms of the flour building. PCB concentrations exceeding 1 milligram per kilogram (mg/kg) that will require proper management during demolition were identified in white and green paints from the walls of the loading dock and gray paint on a beam in a debris pile adjacent to the loading dock. All paint was in a moderately to highly degraded condition, with dust and paint chips comingled with floor debris.

  White, green, yellow, and gray paint throughout the Site buildings was identified as LCP, which is the majority of paint in the Site buildings. Based on these results, all paint in the Site buildings should be considered LCP

- **Environmental Finding #2 – Possible surface soil impacts from a former railroad spur leading to the shipping/receiving areas along the western side of the Site buildings is CONFIRMED.** Surface soil analyzed for impacts associated with the former railroad spur (CA-SS-13 through CA-SS-15) indicated the presence of PAHs and metals in excess of the NHDES SRSs in CA-SS-14 and CA-SS-15. PAHs and arsenic results may be attributable to background levels (degraded asphalt from the road), however, are likely partially related to the railroad spur. Review of diagnostic ratios (PH/ANT and F/P) indicate these results to be partially representative of a pyrogenic source; however, the F/P ratio for CA-SS-14 is below 1 that would indicate a petrogenic source and smaller chain compounds (e.g., naphthalene and 2-methylnaphthalene) are still present in CA-SS-15 that would also indicate a petrogenic source. Elevated concentrations of chromium are also present along the tracks in the northeast portion of the Site.
- **Environmental Finding #3 – Possible release to an unlined drainage trench leading from the flour building to the Contoocook River, and floor drains in the soap and flour buildings that were possibly a discharge route for untreated industrial waste: release to trench drain CONFIRMED, but connectivity to floor drains is INCONCLUSIVE.** Neither of the floor drains could be sampled due to frozen or unsafe conditions; making it difficult to make the connection between the floor drains and the trench. However, the trench was confirmed to contained PAHs and lead exceeding the NHDES SRSs (CA-SS-19). Concentrations appear to decrease downslope in the trench (CA-SS-20), but this trend is difficult to confirm with only two samples. Based on these soil analytical results, a release is confirmed, but it is inconclusive if the observed floor drains discharge to the drainage trench.
- **Environmental Finding #4 – Potential impacts resulting from the use of substances common to grain milling, electrical generation, and leather tanning, and the general industrial history of the Site, and from the general debris and solid waste spread across the Site is INCONCLUSIVE.** Due to the historical use, Site impacts unidentified above are possible. Although contamination was detected throughout the Site, it was in locations believed to be attributable to a specific source. Three samples that would best assess the general industrial impacts were inaccessible and not sampled due to flooding. No additional potential sources of contamination or evidence of a release was observed during the supplemental Site reconnaissance. Because of gaps in assessment at the Site, impacts related to the general industrial history of the Site, beyond the identified sources above, is inconclusive.

To supplement these findings and fulfill remaining data gaps, a Supplemental Phase II ESA was completed to assess the floor drain discharge locations, further assess the extent of PAHs and metals in floor debris and attempt to delineate the PCB Bulk Product Waste and Remediation Waste within the Site building components and debris. The Supplemental Phase II ESA concluded the following:

- **Floor Drain Assessment and Discharge**: Following the initial Phase II ESA, Environmental Finding #3 – *Possible release to an unlined drainage trench leading from the flour building to the Contoocook River, and floor drains in the soap and flour buildings that were possibly a discharge route for untreated industrial waste: release to trench drain,* was confirmed*, but connectivity to floor drains*, remained inconclusive, as no indications of discharge locations were identified in accessible portions of the Site, and large portions

of the Site where such discharge locations were likely to have been located were inaccessible due to flooding or overgrown vegetation. Additional exterior Site reconnaissance conducted during this Supplemental Phase II ESA did not identify any suspected discharge locations for pipes/drains, etc. observed inside the building, nor any additional items of environmental concern.

The sludge sample collected from inside the floor drain (CA-SS-6) in the soap building was intended to assess the connection of interior contamination with possible exterior discharge locations (i.e., the trench). TPH, PCBs, and metals above the SRSs were detected. Results did not indicate the presence of PAHs; however, laboratory reporting limits were elevated as a result of dilution due to non-target compounds in the sample. The reporting limits were higher than the applicable SRS; therefore, the presence of these compounds cannot be dismissed. The TPH concentration in this sample represents non-petroleum carbon-based compounds; therefore, it is not considered representative of petroleum compound concentrations and is not considered to exceed the SRS. The laboratory tentatively indicated the peaks in the chromatograph resemble phenols. Similar to prior TPH concentrations obtained from the Site, these TICs may also be attributed to the soap making process as certain phenols were also used in disinfectant soaps. The prior TICs were identified as fatty acids, which were not similarly identified in this sample.

The floor drains are clogged and do not drain standing water; therefore, tracer tests would not be effective in identifying discharge locations. Credere compared the above floor drain sample result to the exterior trench results (CA-SS-19 and CA-SS-20); however, without valuable TPH and PAH results for CA-SS-6 to compare CA-SS-19 and CA-SS-20, it is difficult to correlate the trench and interior drain. The TIC phenols identified in CA-SS-6 were not identified in the trench samples, which may suggest they are not connected.

Due to the nature of historical operations at the Site and the observed presence of interior floor drains with no known discharge location, subsurface discharge or discharge to the river remains a concern but will require direct observation during building demolition to adequately assess.

- **Nature and Extent of PCBs**: To further assess the nature and extent of materials considered PCB Bulk Product Waste, additional sampling of interior painted surfaces and substrates was completed. Results indicated two (2) additional painted surfaces coated with paint containing PCBs at concentrations considered PCB Bulk Product Waste. Both samples were collected from green paint in the generator room from the walls and wooden bathroom stalls. White wall paint in the generator room also contained PCBs but at concentrations below 50 mg/kg. The painted components within the entire building will be assumed to contain PCBs because the majority of the Site building is not safely accessible to observe or sample the extent of known PCB-containing paints (gray, yellow and green paints) or other unknown painted surfaces. Painted components within the entire building will require disposal at a solid waste landfill licensed to accept PCB-containing wastes at "at-found" concentrations greater than 1.0 mg/kg, as they are excluded for disposal as a TSCA regulated waste and rather are considered PCB Bulk Product Waste, meaning a waste derived from manufactured products (i.e., paints) containing PCBs in a non-liquid state, at any concentration where at the time of designation for disposal the concentration was greater than or equal to 50 mg/kg PCBs.

Floor debris contains PCBs at concentrations ranging between 2.3 and 700 mg/kg. Due to the known historical use of a portion of the building for electrical generation, it is not clear if the source of PCBs is associated with the manufactured PCB-containing paint or from a liquid release of an unknown concentration associated with former transformers or other equipment during electrical generation. The elevated PAHs may also suggest an oil source; however, may also be attributed to the abundant degraded roofing (tar) comingled in the debris. Due to the potential for a historical liquid release, floor debris within the generator room should be considered PCB Remediation Waste with a concentration greater than 50 mg/kg, as segregation of impacted and non-impacted debris is not feasible due to the degraded nature of the debris, and because sampling has not indicated clear point sources for PCB impacted debris. Based on this designation and the associated required handling of the PCBs in 40 CFR 761, the PAHs and metals also detected in these samples at highly elevated concentrations are considered incidental to the PCBs.

Additionally, to assess migration of PCBs into concrete and wood substrates, co-located substrate samples for previously or concurrently collected soil/debris samples in the generator room were collected and analyzed for PCBs. Results indicated the presence of PCBs in concrete at concentrations below 50 mg/kg. Based on the small generator room floor area and lack of consistent correlation between the overlying debris sample results and underlying concrete results (see comparison on **Table 2**), the entire concrete floor of the generator room will be considered PCB Remediation Waste with a concentration above 1 mg/kg but below 50 mg/kg, which must be disposed according to 40 CFR 761.61(5)(i)(B)(2)(*ii*). One of the two wood substrate samples was above 50 mg/kg. Based on the limited area of wood substrate, all the wood substrate will be considered PCB Remediation Waste with a concentration greater than 50 mg/kg, which must be disposed according to 40 CFR 761.61(5)(i)(B)(2)(*iii*), with the overlying debris once removed from the building.

Based on an approximately square footage of the generator building of 1,250 square feet and an assumed average depth of 1 foot, an estimated 50 cubic yards of debris is present that would be considered PCB Remediation Waste with a concentration greater than 50 mg/kg once removed. The volume of painted surfaces requiring disposal in an appropriately licensed landfill cannot be estimated. The volume of concrete to be disposed as PCB Remediation Waste at a concentration less than 50 mg/kg is not known because the concrete thickness is unknown.

Exterior soil samples collected adjacent to the generator room (CA-SS-27 and CA-SS-28) were found to contain PAHs and lead above the SRS; however, PCBs were below the laboratory reporting limit. Therefore, PCBs are considered contained to within the generator building and on Site building components (paints). Depending on the subsurface infrastructure beneath the generator building, there is potential for the elevated PCBs in concrete and wood substrates to have allowed transmission to underlying soil if present, assessment of which is inhibited by the dilapidated Site building. Additional assessment beneath the Site building is warranted after building removal.

- **Other Impacts Associated with General Historical Use**: Following the initial Phase II ESA, Environmental Finding #4 – *Potential impacts resulting from the use of substances*

common to grain milling, electrical generation, and leather tanning, and the general industrial history of the Site, and from the general debris and solid waste spread across the Site, remained inconclusive, as all detected contamination was believed to be attributable to various specific sources, and the samples intended to assess this finding, CA-SS-16 through CA-SS-18, were not previously collected due to flooding. These samples were collected during this Supplemental Phase II ESA, and detected SVOCs, particularly PAHs, at all three (3) sample locations adjacent to the flour building with SRS exceedances at CA-SS-16. Low concentrations of metals were detected at all of these locations, except for an SRS exceedance of lead at CA-SS-18. Because these samples were intended to characterize background conditions and assess if the general industrial history of the Site had caused environmental impacts, no specific source for the impacts is known. The complete nature and extent of PAHs and lead in these areas remains a data gap; however, further assessment is inhibited by the presence of the dilapidated building. Further assessment will be facilitated by removal of the Site building.

1.c. Contaminants of Potential Concern

Based on these investigations, the Contaminants of Potential Concern (COPCs) to be addressed at the Site during future cleanup activities includes the following:

- PCB Bulk Product Waste and Remediation Waste within the Site building
- PAHs and metals in soil throughout the Site that have not be fully delineated
- ACM within the Site buildings
- Lead paint within/on the Site buildings
- Any other potential environmental concerns related to floor drains and discharges that have not been able to be safely assessed within the dilapidated building

The following recommendations are made to address this contamination:

- Prepare a Self-Implementing PCB Cleanup Plan or Performance Based Disposal Plan to address the following:
    - Removal and disposal of approximately 50 cubic yards of debris and wood substrate PCB Remediation Waste within the generator room in accordance with 40 CFR 761.61(5)(i)(B)(2)(*iii*), which exceeds 50 mg/kg.
    - Removal and disposal of the concrete foundation slab of the generator room as PCB Remediation Waste in accordance with 40 CFR 761.61(5)(i)(B)(2)(*ii*), which is below 50 mg/kg but exceeds 1 mg/kg.
    - Demolition and disposal of the remainder of painted surfaces within the Site building as PCB Bulk Product Waste and PCB Bulk Product Remediation Waste at a New Hampshire landfill licensed to accept PCBs over 1 mg/kg.
    - To reduce disposal costs, further characterize the concrete foundation floor in other areas of the Site building (i.e., areas other than the generator room) after demolition of the overlying structure to assess if the foundation can be disposed of as non-contaminated construction and demolition debris or if the entirety of the foundation will require disposal as PCB contaminated waste.
    - Assess and remediate (if needed) possible PCB contaminated soil and infrastructure beneath the generator building slab.

- Abate identified ACM and associated debris within the Site building or properly dispose of the entire building as ACM in accordance with New Hampshire Statute Chapter Env-A 1800 – Asbestos Management and Control.
- Employ proper health and safety practices and worker notification to prevent exposure to hazardous building materials and other impacted media during building demolition.
- Properly characterize wastes generated during demolition to facilitate proper disposal.
- Observe floor structures during demolition to attempt to trace the drain discharge locations.
- Continue to conduct Site reconnaissance during any future work at the Site for discharge pipes or other evidence of fill.
- Following the demolition, further assess the following and prepare a Remedial Action Plan to address identified contamination at the Site (beyond what will be removed during the demolition [i.e., building materials/debris]):
    - Nature of extent of PAHs and metals throughout the Site.
    - Source and extent of lead at CA-SS-15, CA-SS-18, CA-SS-19, and CA-SS-28 and around the Site building and rail line.
    - Extent of chromium along the railroad tracks in the northern portion of the Site.
    - Possible PCBs beneath the generator room

2. Proposed Reuse Plan

The Town's goal for redevelopment of the Allied Leather Site is to directly address the key community needs of an aging population, lack of recreational opportunities, and lack of access to locally grown produce and meats. The Town has been working with a private developer to achieve these goals for the Site. Our shared vision for the redevelopment of the Allied Leather Site includes 100 units of senior housing, facilitate an extension of the Northern Rail Trail through the property to connect to the adjacent Hannah Duston Memorial Historic Site/adjacent recreational area and Merrimack Valley Greenway, adding parking at the trailhead so the community has access to the trail as well as a canoe launch to the Contoocook River, and including a permanent area for a long-term farmers market so local residents can have access to locally grown produce and meats.

3. Regional and Site Vulnerabilities

According to the US Global Change Research Program (USGCRP), trends for the northeast region of the United States include increased temperatures, increased precipitation with greater variability, increased extreme precipitation events, and rises in sea level. Some of these factors, most specifically increased precipitation that may affect flood waters and stormwater runoff, are most applicable to the cleanup of the site. According to FEMA Flood Zone Map 33013C0336E, parts of the Site are located within a designated regulatory floodway Zone AE of the Contoocook River. Under current Site conditions, increased precipitation and extreme weather could result in additional stormwater runoff and potential erosion to the Site from the mostly impermeable eastern portions of the Site along the Contoocook River.

Based on the nature of the Site and its proposed reuse, changing temperature, rising sea levels, wildfires, changing dates of ground thaw/freezing, changing ecological zone, saltwater intrusion and changing groundwater table are not likely to significantly affect the Site.

4. Applicable Regulations and Cleanup Standards

4.a. Cleanup Oversight Responsibility

The cleanup will be overseen by the NH Department of Environmental Services (NHDES) Brownfields Department. In addition, all documents prepared for this Site are submitted to the NHDES under Site #201607023.

4.b. Cleanup Standards and Applicable Laws

Cleanup goals will include the following:

- Soil within and surrounding the Site building will be cleaned up to meet the New Hampshire Statute Env-Or 600 Contaminated Site Management Soil Remediation Standards.
- Removal and disposal of PCB Remediation Waste within/on the Site buildings will be governed by 40 CFR 761
- ACM will be governed by New Hampshire Statute Chapter Env-A 1800 – Asbestos Management and Control
- Disposal of the lead painted building components and PCB Bulk Product Waste will require proper disposal as non-hazardous waste according to New Hampshire Env-Hw-400

5. Cleanup Alternatives

5.a. Presumptive Remedial Measures

Due to the dilapidated state of the Site buildings that represents a public safety concern, the requirements to conduct additional soil characterizations under the buildings prior to redevelopment, the requirements for remediation of PCBs under TSCA, and the presence of friable asbestos and flaking lead based paint within the unstable buildings with a direct pathway to the environment, these buildings require removal prior to commencement of further remedial investigation/delineation and subsequent cleanup and redevelopment. The buildings cannot be restored and reused for any purpose and without removal, the environmental contaminants identified in **Section 1.c** cannot be addressed, which indicates the demolition and removal to be the only option. Therefore, the following are considered presumptive remedial measures that do not require evaluation of alternatives.

5.a.i. Removal of PCB Remediation Waste Debris

Floor debris and wood substrate flooring within the generator room exceeds 50 mg/kg and requires removal and proper disposal according to 40 CFR 761.61(5)(i)(B)(2)(*iii*). The building will be accessed from a safe vantage point and the debris will be removed from this room manually for proper disposal as a separate waste stream from the rest of the building.

Presumptive Cost: $50,000

5.a.ii. PCB, Asbestos and Lead Paint Building Component Removal

The Site Building is not safely accessible for a detailed asbestos inspection or subsequent abatement and similarly PCB Bulk Product Waste cannot be delineated. Therefore, the entire building including any foundations will be disposed as such. The Site building will be demolished, and the entire waste stream will be disposed of as asbestos containing and PCB Bulk Product Waste. The concrete foundation in the generator room is considered PCB Remediation Waste with concentrations less than 50 mg/kg; therefore, this concrete will also be disposed of with the remainder of the building as it will have similar disposal facility criteria. However, concrete foundations/floors outside the generator room will be further characterized to assess if they are appropriate for standard construction and demolition (C&D) debris disposal.

Presumptive Cost: $250,000 (±depending on percent of foundation disposal in landfill or as C&D waste)

5.b. Comparison of Remaining Alternatives

Considering the prior implementation of the above presumptive remedies, the remaining contamination to address is soil contamination that has not been well assessed due to the limitations the building currently causes. Once the building is removed, a further characterization/pre-design investigation will be completed to further define the extent of PAH and metals contamination as well as PCBs below the foundations. For purposes of this preliminary ABCA, soil contamination is assumed to be PAHs, metals and low-level PCBs (i.e., less than 50 mg/kg) throughout surface soil of the Site. Additionally, since impacts are not known, no alternatives were evaluated associated with any hypothetical issues related to floor drains and discharge pipes that have not yet been identified.

The remedial actions selected for the Site should minimize the potential for human exposure and/or improper disposal of COPCs at the Site. Multiple remedial alternatives are available to address the identified COPCs at the Site. However, based on past experience at sites with similar contaminants and conditions, alternatives were pre-screened for general advantages and disadvantages and the following remedial alternatives were selected for further evaluation and comparison:

- Alternative #1 – No Action
- Alternative #2 – Selective removal of contaminated soil within the floodplain for offsite disposal, installation of an engineered barrier on upland soil, and institutional controls
- Alternative #3 – Completed removal and proper disposal of contaminated soil/fill from the flood plain and upland portions of the Site
- Alternative #4 – Installation of an engineered barrier on all contaminated soil in the flood plain and upland soil and institutional controls

5.b.i. Evaluation of Alternatives

The comparison and evaluation of the remedial alternatives has been conducted using the five criteria listed below in order of importance:

1. Risk reduction and effectiveness (including consideration of continued effectiveness in a changing climate)
2. Feasibility and ease of implementation

3. Cost effectiveness
4. Green remediation potential
5. Estimated time to reach "No Further Action"

Risk Reduction and Effectiveness

- Alternative #1 – No Action does nothing to reduce risk of exposure to contaminants at the Site; therefore, **this alternative does not meet threshold criteria for further consideration and will not be further evaluated**.
- Alternative #2 – Selective removal of contaminated soil within the floodplain for offsite disposal, installation of an engineered barrier on upland soil, and institutional controls is effective at reducing risk because it uses a well-tested approach to preventing exposure by adding a barrier between human activities and the contamination. This alternative is slightly more resilient because the soil within the flood zone that would be most susceptible to erosion and re-exposure is removed.
- Alternative #3 – Complete removal and proper disposal of contaminated soil/fill from the flood plain and upland portions of the Site is the most effective at reducing risk of exposure because it eliminates the source. This is also the most continually effective and resilient for similar reasons.
- Alternative #4 – Installation of an engineered barrier on all contaminated soil in the flood plain and upland soil and institutional controls is similarly protective for reasons discussed under Alternative #2; however, this alternative leaves contamination within the flood zone that may present future concerns during severe weather events.

Feasibility and Ease of Implementation

- Alternative #2 – Selective removal of contaminated soil within the floodplain for offsite disposal, installation of an engineered barrier on upland soil, and institutional controls requires additional delineation of contaminated soil along the river within the flood zone to allow for excavation of the soil within this area. Excavation along a river poses its challenges; however, is considered easier to implement than designing and structurally sound cover system in an area that is known to flood annually and that may become increasing prone to severe weather. Therefore, this alternative is considered to most implementable.
- Alternative #3 – Complete removal and proper disposal of contaminated soil/fill from the flood plain and upland portions of the Site, if properly delineated, this alternative could be easily implemented ; however, due to the current unknowns the extent of contamination could be extensive, requiring a significant sampling effort to delineate, and the complete removal of contamination may be impractical. Therefore, this alternative is considered the least easy to implement.
- Alternative #4 – Installation of an engineered barrier on all contaminated soil in the flood plain and upland soil and institutional controls would require only limited additional sampling and is the easiest to implement for typical upland soils. However, the design and installation of a structurally sound cover system within the flood zone is considered less implementable than Alternative #2.

Cost Effectiveness

- Alternative #2 – Selective removal of contaminated soil within the floodplain for offsite disposal, installation of an engineered barrier on upland soil, and institutional controls is estimated to cost $150,000
- Alternative #3 – Complete removal and proper disposal of contaminated soil/fill from the flood plain and upland portions of the Site is estimated to cost $300,000
- Alternative #4 – Installation of an engineered barrier on all contaminated soil in the flood plain and upland soil and institutional controls is estimated to cost $100,000

Green Remediation Potential

- Alternative #2 – Selective removal of contaminated soil within the floodplain for offsite disposal, installation of an engineered barrier on upland soil, and institutional controls would require a moderate degree of soil trucking and landfill disposal.
- Alternative #3 – Complete removal and proper disposal of contaminated soil/fill from the flood plain and upland portions of the Site would require the most soil trucking and landfill disposal.
- Alternative #4 – Installation of an engineered barrier on all contaminated soil in the flood plain and upland soil and institutional controls would require the least soil trucking and no landfill disposal, making this the most likely to have potential for green remediation.

The following table summarizes the comparison criteria and alternatives using a relative rank score. The top-ranking score is based on the total number of alternatives presented as part of this ABCA (i.e., 4 alternatives), representing the best option for that comparison criteria:

Alternative	Reduced Risk & Effectiveness*	Feasibility & Ease	Cost Effectiveness	Green Remediation Potential	Time	Total Score (max score 16)
#1 No Action	0	-	-	-	-	0
#2 Select Removal/ Engineered Barrier	3	4	3 ($200,000)	3	=	13
#3 Complete Removal	4	2	2 ($350,000)	2	=	10
#4 Sitewide Engineered Barrier	2	3	4 ($150,000)	4	=	13

0 – indicates threshold criteria not met and alternative is not evaluated, would otherwise represent scores of 1
= indicates no factors suggest the alternative to outweigh another.

Alternatives #2 and #4 are equal in scoring; however, as Alternative #2 allows for improved effectiveness and long-term risk reduction in a changing climate by removal of contamination from the sensitive flood zone and is more easily implementable than installing a structurally sound barrier system in the flood zone, Alternative #2 is the selected alternative because these evaluation

criteria are considered more important than the marginal cost different and green remediation potential that score higher for Alternative #4.

6. Proposed Cleanup

To implement Alternative #2, the remedial design will assess the extent of contamination, particularly within the flood zone, through delineation sampling. Once defined, the contaminated soil within the flood zone will be excavated using standard construction practices for offsite disposal and the surface will be restored with a gravel and vegetated surface to protect against erosion during annual flooding. The upland area of the Site above the annual flood line will be covered with an engineered barrier to consist of clean soil cover in landscaped areas or lawns, paved walkway, or building foundations.