



Thomas A. Golden, Jr.
City Manager

R01-24-A-015

Narrative Information Sheet

- 1. Applicant Identification**

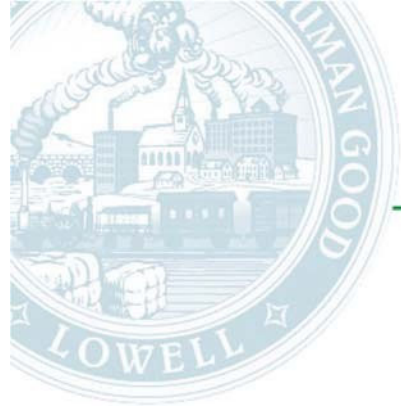
City of Lowell, Massachusetts
Department of Planning and Development
JFK Civic Center, 50 Arcand Drive
Lowell, MA 01852
- 2. Funding Requested**
 - a. Assessment Grant Type: Community-wide
 - b. Federal Funds Requested: \$500,000
- 3. Location**

Lowell, Middlesex County, Massachusetts
- 4. Target Area and Priority Site Information**

JAM Urban Renewal Plan Area & Hamilton Canal Innovation District
Census Tracts 25017310100 (Downtown) & 25017311900 (Back Central)
Parcels 15 & 16
Parcels 11 & 12
Proposed Appleton Street Development Site
- 5. Contacts**
 - a. Project Director**

Sarah Brown
Chief Design Planner
City of Lowell
Department of Planning and Development
JFK Civic Center, 50 Arcand Drive
Lowell, MA 01852
Tel: (978) 674-4252
E-mail: sbrown@lowellma.gov
 - b. Chief Executive/Highest Ranking Elected Official**

Thomas A. Golden, Jr.
City Manager
City of Lowell
375 Merrimack Street
Lowell, MA 01852
Tel: (978) 674-4400
E-mail: tomgolden@lowellma.gov



6. Population 114,804

7. Other Factors Checklist

Sample Format for Providing Information on the Other Factors	Page #
Community population is 10,000 or less.	NA
The applicant is, or will assist, a federally recognized Indian Tribe or United States Territory.	NA
The proposed brownfield site(s) is impacted by mine-scarred land.	NA
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).	2, 3, 6
The proposed site(s) is in a federally designated flood plain.	2
The reuse of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy.	NA
The reuse of the proposed cleanup site(s) will incorporate energy efficiency measures.	2, 3
The proposed project will improve local climate adaptation/mitigation capacity and resilience to protect residents and community investments.	3, 5, 6, 8
At least 30% of the overall project budget will be spent on eligible reuse/area-wide planning activities, as described in Section I.B., for priority site(s) within the target area(s).	NA
The target area(s) is located within a community in which a coal-fired power plant has recently closed (2013 or later) or is closing.	NA

Notes: NA = Not applicable

8. Letter from the State or Tribal Environmental Authority - Attached

9. Releasing Copies of Applications - Not Applicable



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

100 Cambridge Street Suite 900 Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

November 3, 2023

Via Email

Thomas A. Golden Jr., City Manager
City of Lowell
375 Merrimack Street
Lowell, MA 01852

RE: STATE LETTER OF ACKNOWLEDGMENT
City of Lowell
Brownfields Community-Wide Assessment Grant

Dear Mr. Golden:

I am writing to support the application submitted by the City of Lowell under the Fiscal Year 2024 U.S. Environmental Protection Agency (EPA) Brownfield Assessment Grant Program. We understand that the City is planning to undertake several assessment projects to promote redevelopment across the community with a focus in the Hamilton Canal Innovation District target area. EPA funding will facilitate Brownfields redevelopment by providing resources to assess properties, conduct cleanup planning and redevelopment planning at properties where actual and perceived contamination exist that inhibit potential future development, including target areas identified in the City of Lowell's Jackson Appleton Middlesex Urban Renewal Plan.

In Massachusetts, state and federal agencies have developed strong partnerships and work together to ensure that parties undertaking Brownfield projects have access to available resources and incentives. The Massachusetts Department of Environmental Protection (MassDEP), through our regional offices, provides technical support to Brownfield project proponents when regulatory issues arise. If this proposal is selected, MassDEP will work with our state and federal partners to support the City of Lowell to help make this project a success.

We greatly appreciate EPA's continued support of Brownfield efforts in Massachusetts.

Sincerely,

David Foss, CPG, LSP

Statewide Brownfields Coordinator, Bureau of Waste Site Cleanup

cc: Dorrie Paar, US EPA
Sarah Brown, Chief Design Planner
Joanne Fagan, MassDEP Northeast Regional Office

IV.A. Narrative/Ranking Criteria

1. **PROJECT AREA DESCRIPTION AND PLANS FOR REVITALIZATION**

a. Target Area and Brownfields

i. Overview of Brownfield Challenges and Description of Target Area - Lowell, Massachusetts, a diverse, urban community, located 25 miles northwest of Boston, was built around an extensive industrial mill network located along the Merrimack and Concord Rivers and 5.6 miles of man-made canals that provided power for the mills' machinery. Currently home to 114,804 people, Lowell is the nation's first planned industrial city, which surged to prominence during America's Industrial Revolution. By 1850, less than 50 years after their establishment, the mills in Lowell were producing enough cloth to circle the earth twice. Following World War I, Lowell saw a significant decline in manufacturing that persisted throughout much of the 20th century and resulted in large-scale disinvestment and decay. Left behind are the remnants of Lowell's industrial past, brownfields sites, that continue to be discovered as Lowell struggles to revitalize its neighborhoods, modernize its infrastructure, and provide quality open space for its residents. There are **over 615 known hazardous release sites in Lowell** according to the Massachusetts Department of Environmental Protection (MassDEP), including textile mills, gas stations & automotive service, dry cleaners, junk yards, and other former manufacturing facilities that have contributed to an increase in business abandonment, crime and blight. These properties are often contaminated with volatile organic compounds (VOCs), metals, petroleum compounds and hazardous building materials (HBM), including asbestos, lead-based paint and PCBs.

The Target Area includes two adjacent census tracts, 25017310100 (Downtown) and 2501731190 (Back Central), which consists of residential and commercial areas located within Lowell's downtown. These areas are **Massachusetts-designated environmental justice (EJ) areas meeting the criteria for minority population, low-income, and English isolation.** The **target census tracts are also disadvantaged communities according to the Climate and Economic Justice Tool (CEJST).** According to the US Census Bureau, **17.5% of persons in Lowell live in poverty. Since 1980, Lowell has also experienced significant growth in its minority population and, as of the 2020 U.S. Census, is a majority-minority community.** Cambodians are Lowell's largest ethnic minority and approximately 22% of the total City population identifies as Asian. They, along with newer arrivals from South America, Africa, and the Middle East and others in the Target Area community have experienced, firsthand, the impacts resulting from Lowell's long history of environmental injustices related to industrial activities dating back to the industrial revolution. Aside from Lowell's unhoused population, working-class minorities, and other disenfranchised groups are finding it difficult to set up roots within the City due to the rising cost of housing and the current housing crisis. **EPA Brownfields Assessment funding is vital to determine the risks at priority sites and develop comprehensive plans to remediate and redevelop the sites that can be transformed into affordable/mixed-income housing, mixed-use development and supportive housing to meet the community's growing need.**

ii. Description of the Priority Brownfield Site(s) – As a result of the power of the nearby Merrimack and Concord Rivers and associated man-made canals to support the growth of textile mills, a vast mixed-use industrial and residential district was created throughout the 19th and early 20th centuries where most of the land within the Target Area was owned by or associated with the Appleton Company, Hamilton Company and the Lowell Machine Shop. Uses in the area included the operation of manufacturing/mill facilities, dye houses, rail lines, coal pockets and boarding houses for local mill workers. Poorly planned development following the pullout of industrial manufacturers, starting in the early to mid-20th century and reaching its peak in the 1980s and 1990s, resulted in long-term disinvestment and neglect. Left behind was a high incidence of vacant buildings, substantial blight, empty lots, poorly maintained low-income housing units, makeshift encampments that house Lowell's growing homeless population and an absence of parks and open spaces.

Recent efforts to stem the trend of stagnation and disinvestment, the creation of the Jackson/Appleton/Middlesex (JAM) Urban Renewal Plan (2001) and the Hamilton Canal District (HCID) Master Plan (2008), have seen some success, however; after over 20 years, half of the properties targeted in these planning efforts remain undeveloped. Many of the goals of these plans cannot be realized without additional investment from EPA. Nearly every property within the Target Area is a brownfields site due to the

nature of historic use. Properties within the Target Area have been found to contain VOCs, Polycyclic Aromatic Hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), metals (lead, arsenic, chromium, etc.), and HBM barrier to investment by the private market due to increased costs for assessment and remediation. For this grant application, the City’s focus will be directed to the following Priority Sites:

<i>Site/Size (*site in disadvantaged census tract - CEJST)</i>	<i>Location/Proximity</i>	<i>Historic/Current Use</i>	<i>Environmental Risk</i>	<i>Activities Required</i>	<i>Reuse Plan / Why the Site is a Priority</i>
Parcels 15 & 16* , Hamilton Canal District/JAM Plan, 2.43 acres	EJ Neighborhood / Disadvantaged; 25017310100; Adj. to Merrimack Canal; Downtown; Historic District	Part of former Lowell Machine Shop / mill/manufacturing – 1825-1936, Parking lot since 1952.	VOCs PAHs PCBs Metals Historic Fill HBM	Supplemental Phase II / Phase III (Phase I and initial Phase II ESA completed) Cleanup & Reuse Planning	Mixed Use – affordable housing & ground floor commercial/retail. LID / Waterfront access to canal.
Parcels 11 & 12* , Hamilton Canal District/JAM Plan, ~0.7 acres	EJ/Disadvantaged; 25017310100; Adjacent to Lower Pawtucket Canal; Downtown; Historic District; 100-year flood zone – partial.	Part of former Lowell Machine Shop /mill/manufacturing 1825-1936; Pellon Corporation – nonwoven fabrics manufacturer; Bldgs demolished 2006	VOCs PAHs PCBs Metals Historic Fill HBM	Phase I/II GPR Survey Cleanup & Reuse Planning	Residential – mixed-income housing. Energy efficiency and LID / green infrastructure. Riverwalk and waterfront access to canal.
Appleton St Redevelopment Site* , Multiple (3) Parcels, JAM Plan ~ 0.5 acres total	EJ/Disadvantaged; 2501731190; Back Central; Historic District	Historically housing associated with mill operations - 2 parcels currently vacant and one 3250 sq ft of retail	VOCs PAHs Metals Historic Fill	Phase I/II Cleanup & Reuse Plan.	Residential - Affordable housing. Energy efficiency and LID design and open /green space.

iii. Identifying Additional Sites - In addition to the sites listed above, several additional potential sites have been identified through various planning and inventory efforts already conducted by the City. The HCID Master Plan calls for the redevelopment of 3 additional sites with end uses including open space, residential and mixed commercial/residential. More sites are also expected to be identified as part of a near-future revision to the JAM Plan, that considers the significant lack of investment by the private market around Appleton Street. Lowell's working-class families, minorities, and unhoused populations are struggling to find affordable housing in the City. The City of Lowell intends to create pad-ready parcels for affordable housing development and has recently submitted a grant application to the U.S. Department of Housing and Urban Development’s PRO-Housing Grant program to conduct planning and acquire property for these efforts. Selection of future sites for assessment and remediation must take into consideration **the same criteria used to select the priority sites**, which includes: 1) Meets the definition of a brownfield site. 2) Located within an Urban Renewal, Area-wide or Master Plan area. 3) Potential impacts/benefits to disadvantaged/underserved. 3) Meets goals of the Lowell Forward Master Plan. 4) Community input. 5) Redevelopment potential. 6) Etc.

b. Revitalization of the Target Area

i. Reuse Strategy and Alignment with Revitalization Plans - In 2001, recognizing the need for municipal intervention, the City of Lowell created the **Jackson/Appleton/Middlesex Urban Revitalization and Development Project** or JAM Plan. The JAM Plan is an Urban Renewal Plan developed in accordance with the requirements set forth in Massachusetts General Laws (M.G.L.) Chapter 121B for the Urban Renewal Program. This program is designed to address areas that are substandard, decadent, and/or blighted and where the cost of redevelopment is too great for private enterprise alone. The JAM Plan identified several municipal actions ranging from the acquisition of vacant & blighted land, zoning changes, historic preservation, to infrastructure improvements to assist in the revitalization of the area. Objectives of the JAM Plan include acquisition of over 18 acres of privately-owned land that would result in residential, mixed-use and commercial/retail development. - In 2008, in response to the acquisition of land called for in the JAM Plan,

the **Hamilton Canal District (HCID) Master Plan** was created. The HCID Plan calls for **specific reuse strategies** the City would seek for this newly acquired land through partnerships with interested developers. While the HCID Plan has seen some success over the past 15 years, approximately half of the district remains undeveloped. The Sites remaining brownfields are anticipated to be redeveloped in accordance with the plan and become **mixed-use and residential redevelopment sites**. Target Priority Parcels 15 & 16 are anticipated to be mixed-use with ground floor commercial and upper floor residential. Target Priority Parcels 11 & 12 will be fully residential with a mixed-income component. Appleton Street Redevelopment Priority Target Site will be affordable housing. The JAM Plan and HCID are expected to be updated in 2024 and the work associated with this grant will be consistent with the updated plans.

Completing the redevelopment of the HCID, as well as providing affordable housing for Lowell residents are the top goals for the upcoming **Lowell Forward Master Plan** and the **Downtown Lowell Rapid Recovery Plan**. Additionally, new state legislation requires all train-connected communities to have at least one zoning district near a train station for multifamily housing. The City proactively created a **transit-oriented development (TOD) plan** to encourage multi-family development, by right, in walkable neighborhoods near transit to address housing, transportation and climate goals. This also aligns with **Sustainable Lowell 2025 Master Plan**, where the concepts of social, economic, energy efficiency and environmental sustainability have been interwoven. The Target Area is located within the **Multi-family – Mid Rise Overlay District**. With vital funds from EPA, the city will implement these plans, simultaneously removing barriers to redevelopment on brownfields, expanding the customer base for existing businesses by increasing foot traffic and enhancing vibrancy, combating the housing crisis through the creation of affordable housing and improving local climate adaptation/mitigation capacity and resilience through **smart growth, renewable energy, energy efficiency and transit-oriented development** which in turn reduces emissions and our carbon footprint, which helps confront the climate crisis and builds resilience to protect residents and community investments.

ii. Outcomes and Benefits of Reuse Strategy - The City of Lowell is dedicated to reducing the impacts of climate change on its residents, urban environments, infrastructure, and natural resources. Investing in the Target Sites will help to create a walkable, well-networked neighborhood that is close to transit opportunities, that will address the housing crisis, transportation and climate goals, as well as provide access to the canal waterfront. When fully built out, the JAM Plan area will address LID stormwater management, urban heat islands, as well as stimulate private investment and economic development within the target Downtown Neighborhoods. Reuse involves the new construction of multi-family and mixed-use development. Because of the new construction, modern, energy-efficient lighting, HVAC systems, appliances and windows will be utilized. Modern standards for building systems that automatically control heating, ventilation, air conditioning, and lighting will also be utilized. Renewable energy and hydropower production capacity will be explored through public / private investments. Cleanup and redevelopment of these Sites will remove contaminants and exposure risks from the environment, improving the quality of nearby waterbodies, improving the health of area residents, reducing blight, crime and neglect, returning properties to productive use, and providing economic benefits including increasing area property values, generation of local tax revenue, and spurring additional revitalization, economic activity and growth in the Target Area and the City as a whole. The Assessment Grant is required to advance the development of the JAM Plan area by addressing properties that will not improve through investment of the private market alone, that will enhance the overall public health and wellbeing of the residents and business owners of Lowell and all who visit.

Lowell is projected to experience both warmer average temperatures and intensification of extreme temperatures because of climate change. Residents in Lowell are exposed to heat regularly through walking, biking, and public transit use, therefore, it is important that the City focuses on transit-oriented development to mitigate the impacts to public health. Keeping residents close to transit, health services, jobs, and other amenities will shorten commutes and allow for alternative means of transportation. Lowell is also affected by flooding from extreme precipitation, which is also expected to worsen with climate change. Stormwater flooding is particularly prevalent in areas with poor drainage, impervious surfaces, and undersized culverts. Improvements to infrastructure in areas around the canal system will help mitigate precipitation impacts and erosion, provide stormwater and flood storage and discharge, enhance water quality, and slow the flow of

flood water. Lowell is in the process of developing streetscape standards for each of its neighborhoods that incorporate the use of bioswales and other LID means to address stormwater impacts. The City is working to address urban heat islands through the City’s **Resilient Urban Forest Master Plan**, which calls for an increase in the overall urban tree canopy that will result in tree pits for all future streetscape improvement projects. This grant will increase the resilience of the City’s infrastructural, environmental, and societal features.

c. Strategy for Leveraging Resources

i. Resources Needed for Site Reuse - Through a strong history of utilizing EPA Brownfields Grants to stimulate and unlock additional public and private funding for redevelopment, more than \$100 million of estimated investment has been made because of environmental assessment and remediation conducted in the City of Lowell. Lowell is currently in negotiations with interested developers for several sites in the JAM Plan area. It is expected that the City will see commitments for these sites from developers if the City is able to mitigate the concerns tied to the past historic and industrial uses of these properties. Lowell is also eligible for a variety of funding sources from local, state and /or federal partners to support the assessment, cleanup and/or redevelopment of the Proposed Brownfields Sites including those sources identified in the table below:

Source	Purpose/Role (assessment / remediation / reuse)	Additional Details or Information About the Resource
<i>CDBG</i>	<i>Assessment, Remediation and/or Reuse</i>	<i>Entitlement funding that can be utilized for any planning, engineering, or remediation needs. Funds available on an annual basis.</i>
<i>EPA TBA, MassDevelopment, MassDEP & EPA Cleanup</i>	<i>Approx. \$100K - \$250,000 assessment Approx \$100K - \$750,000+ for clean-up</i>	<i>Local, State and federal Brownfields funding. Apply if / when needed or appropriate.</i>
<i>Municipal</i>	<i>Assessment, Remediation and/or Reuse</i>	<i>Capital Plan funding can be allocated to projects on an annual basis, as available.</i>
<i>HOME</i>	<i>Reuse</i>	<i>Funding to support affordable multi-family housing development.</i>
<i>MassWorks</i>	<i>Reuse</i>	<i>Infrastructure to support development. Apply if/when needed or appropriate.</i>
<i>Mass. Municipal Vulnerability Preparedness (MVP)</i>	<i>Assessment, Remediation and/or Reuse with a focus on climate resiliency and adaptation action project implementation.</i>	<i>Grants up to \$5M to support redevelopment plans for climate resiliency & adaptation. Apply if / when applicable.</i>
<i>HUD – PRO-Housing Grant</i>	<i>Remediation and/or Reuse</i>	<i>Funds to be utilized for planning and zoning changes, acquisition of land, and site remediation. Applied for \$10M in Nov 2023.</i>

ii. Use of Existing Infrastructure - Existing municipal infrastructure, including water, sewer, gas, electricity, internet and public transit are readily available in the Target Area to support the redevelopment and reuse activities at the Proposed Brownfields Sites. In 2015, the Commonwealth of Massachusetts approved a \$4.7 million MassWorks Infrastructure Grant to bring vehicular access and utilities to support redevelopment into the northern section of the HCID. The project featured two new streets, an extension of the existing Broadway Street into the district, and all associated utilities necessary to support the buildings proposed in the HCID Master Plan. Existing infrastructure in the Target Area is therefore sufficient to support the proposed developments and has the capacity to handle expansion.

2. COMMUNITY NEED AND COMMUNITY ENGAGEMENT

a. Community Need

i. The Community’s Need for Funding - Lowell does not have the funding to complete assessment without the significant support of EPA. Since the early 2000s, Lowell has been greatly impacted by shifts in the nation’s economy with little evident recovery as compared to surrounding communities. As of the 2015 American Community Survey, 57.6% of Lowell residents earned less than 80% of the area median income. Current US Census Bureau estimates indicate the median household income is \$64,489 and per capita income is \$30,620. **Over 17.5% of people in Lowell live in poverty**, approximately 6 percentage points higher than

the national poverty rate of 11.6% (based on 2021 estimates). The median household income (MHHI) in these census tracts is \$38,000 (Downtown) and \$25,000 (Back Central), which is 61% and 40% of the Lowell MHHI and 43% and 28% of the Massachusetts MHHI, respectively. Due to the current state of the economy and the repercussions of significant rising inflation for basic necessities including food, housing, utilities and healthcare, the impacts of these low-income statistics are magnified and further increase the burden on this underserved and vulnerable community. In addition, the City's annual budget is primarily financed through property taxes. The median value of owner-occupied housing in Lowell is \$312,600 as compared to the Massachusetts value of \$424,700. While this only represents an approximate \$100,000 difference, the overall picture looks much different when compared to 43.2% home ownership rate across the City. The Target Area is in the 90-95th % for housing burden where residents both earn less than 80% of the Area Median Income and are spending more than 30% of their income on housing costs. Lowell's financial situation is further complicated by the lasting impacts of Covid-19 and revenue losses caused by the pandemic. **In addition, in April 2023, the City experienced a targeted cyber-attack, forcing complete isolation of the City's technology systems, which cost the City an estimated \$2 million;** recovery is still ongoing. EPA Grant funding is critical to ensuring that assessment, cleanup and the highest and best reuse for these sites is realized.

ii. Threats to Sensitive Populations

(1) Health or Welfare of Sensitive Populations - The Priority Sites represent some of the largest blighted and underutilized properties within the Target Area. Increasing poverty levels, loss of affordable housing, rising house prices and cost of living continue to exacerbate problems for those in the Target Area that are at-risk of homelessness. The Target Area consists primarily of dense multi-family residences, commercial and retail uses. **Populations at risk include children, women of child-bearing age, low-income, minority, seniors and housing-insecure populations.** According to EJSCREEN, all associated demographic indicators in the Target Area, exceed the 70th national percentile in one or both census tracts. Access to the properties is not currently restricted. While many areas of the properties are paved, some exposed soils and sediments that are spread from the Site during heavy rains and flooding events can result in exposure to contaminants through dermal contact, ingestion and/or inhalation. Residing, working, and/or playing at or near the Sites puts all these sensitive populations at risk of exposure to the potential contaminants. With this grant, Lowell will have the ability to assess the Sites and develop affordable housing, reduce blight, spur revitalization/redevelopment in a largely neglected neighborhood, reduce exposure to contaminants on Site and contaminated runoff entering rivers, etc., and implement climate resiliency elements to support the neighborhood. These public health and welfare benefits can only be seen if EPA grant funds are provided.

(2) Greater Than Normal Incidence of Disease and Adverse Health Conditions - Due to the age of Lowell's housing stock and the legacy of contamination left by past and current industrial uses, proximity to Brownfields sites can lead to disproportionate adverse impacts to sensitive populations including **metals - lead** (immune, cardiovascular, developmental, gastrointestinal, neurological, reproductive, respiratory, kidney damage; cancer); **PAHs** (liver disorders; cancer; **petroleum compounds** (nervous system, immune, liver, kidney, respiratory damage; cancer); **VOCs** (liver, kidney, nervous system damage; birth defects; cancer); as well HBM including asbestos (lung scarring, mesothelioma and lung cancer) and **PCBs** (immune, hormone and neurological system; liver and skin disease). High prenatal exposure to PAHs is associated with cognitive disfunction, **childhood asthma** and **other adverse birth affects**. According to the most recent data available from the Massachusetts Department of Public Health (DPH), the prevalence of **asthma is 13% among children** in the City of Lowell. This number is noticeably higher than the national prevalence rate of 9.4%. Data collected by the Asthma Coalition at the University of Massachusetts-Lowell shows emergency room visit hospitalizations for respiratory system diseases have had an apparent upward trend since 1995. Additionally, Lowell is identified as a high-risk community for childhood lead poisoning in Massachusetts. The rate for childhood lead poisoning in the City is approximately 6.1 for every 1000 children between the ages of 9 to 47 months, a marked increase from the previous rate of 4.7 for every 1000 children in 2019. The assessment of the Target Sites will help to reduce these threats, create housing opportunities, and improve the overall health of Target Area residents, while continuing the City's efforts to expand upon past endeavors to address these health concerns through the assessment, cleanup, and redevelopment of Brownfields.

(3) Environmental Justice:

(a) **Identification of Environmental Justice Issues** - The **Target Area** consists of census tracts **25017310100 and 2501731190** and are a state-designated EJ areas meeting the criteria for **minority population, low-income, and English isolation** where: a) 46% and 62% of the population in the Target Area is a minority; b) The median household income (MHHI) in these census tracts is \$38,000 and \$25,000, which is 61% and 40% of the Lowell MHHI and 43% and 28% of the Massachusetts MHHI; and c) approximately 26% of households in these census tracts experience English isolation. The target census tracts are also **disadvantaged communities according to CEJST** under the categories of Projected Flood Risk, Low Income, Lack of Green Space, Energy Cost, Housing Cost, Underground Storage Tanks and Releases, Lead Paint, Proximity to Hazardous Waste Facilities, Proximity to Superfund Sites, Traffic Proximity and Volume, Linguistic Isolation, Low Median Income, High School Education, Asthma, Heart Disease, and Diabetes. Lowell has an estimated 51.7% minority population. Languages commonly spoken in Lowell include Khmer, Spanish, Spanish Creole, Portuguese, and Swahili. The community within and adjacent to the Target Area has experienced a long history of **environmental injustices** resulting from the operation of the textile mills and other manufacturing industries in the area. The age of existing housing stock and the legacy of contamination resulting from past historic use can lead to the observed increased rates of asthma and lead poisoning in sensitive populations, as well as increased rates of cancer and other critical health and welfare issues.

(b) **Advancing Environmental Justice** - This grant is a key component of the project strategy to promote environmental justice and support the underserved and disadvantaged populations within the Target Area. This grant, with meaningful involvement from the community, will result in the assessment and eventual cleanup and prevention of exposure to environmental hazards that plague the targeted **Disadvantaged Neighborhoods (CEJST)**. This grant is critical to the City’s ability to leverage additional resources for assessment, remediation and/or redevelopment as well as create critically needed affordable housing, that will increase job opportunities during construction, decrease crime/violence, and eliminate blight and disinvestment in the community, while also providing opportunities for the community to access the waterfront. By creating stable residential developments with recreational opportunities, the project will help spur economic activity in the Target Area and City as a whole and increase local tax revenue. Associated streetscape improvements and open space requirements for private development will result in the use of trees and other vegetation to help combat heat island effects, flood and stormwater impacts. These efforts will ensure the City is more resilient to climate change. Transit-oriented development will provide residents with access to public transit, services and health care as well as to the canal waterfront and associated trail networks, increasing the community’s overall health and wellbeing. Based upon the City’s successful brownfields redevelopment experience, the City is well-equipped with experience and relationships with businesses, residents, and community partners within the Target Area to prevent displacement. The City and its partners will continue to engage the community in the brownfields assessment and cleanup/reuse process and will have discussions with the community about how to minimize displacement. Lowell is proactively developing inclusionary zoning and is exploring an array of other methods to prevent displacement and gentrification such as community land trusts, subsidies, and other financial programs. With respect to unhoused populations, the City works collaboratively with several service providers within the City and region to conduct outreach, provide emergency housing, and to address potential displacement as a result of projects on previously undeveloped land.

b. Community Engagement

i. **Project Involvement / ii. Project Roles** - The City of Lowell has engaged with the community for the redevelopment of the JAM Plan area since 2000. Lowell has maintained continuous engagement with the community about the Sites and the proposed redevelopment strategies since that time through numerous planning processes including the Hamilton Canal District Master Plan, Sustainable Lowell 2025 and the Lowell Forward Master Plan, which is currently underway. The City anticipates maintaining engagement with the neighborhoods and local community groups throughout the four (4) year grant period as detailed below:

Name of organization/entity/group Point of contact (name & email)	Specific involvement in the project or assistance provided
Lowell Downtown Neighborhood Association Jack Moynihan, Carolyn Alphen – co-chairs board@ldna01852.org	Participate in community outreach and help engage residents and businesses and gather their input and feedback. Help to identify the needs and interests of the target area residents during site selection, cleanup and reuse planning process. Community Liaison for Downtown Target Area.
Back Central Neighborhood Association David Koch - President [REDACTED]	Participate in community outreach and help engage residents and businesses and gather their input and feedback. Help to identify the needs and interests of the target area residents during site selection, cleanup and reuse planning process. Back Central Target Area’s Community Liason.
Community Teamwork Inc. Karen Frederick kfrederick@commteam.org	Community Development Corporation leading the crusade for affordable housing. Collect housing data, connect with the community/developers, advise on site selection & strategies for reuse.
Lowell Parks and Conservation Trust Jane Calvin jcalvin@lowelllandtrust.org	Educate public on environmental benefits, stewardship, urban heat islands and resiliency opportunities within the Target Area. Develop educational materials to promote environmental goals and resiliency adaptation efforts.

ii. Incorporating Community Input - To reach diverse groups, experience has shown that we need a diverse array of engagement tactics. In Lowell, what seems to work best is word of mouth. Partnering with the Community-based Organizations listed above is a great way to leverage communication networks and spread the word to gather community feedback and consider and respond to their input. It will be important prior to starting to meet with the partner organizations and other stakeholders to gather input on which methods will be most successful with the target populations. **Feedback received from the community at all stages will be carefully considered and incorporated into the decision-making process.** Some methods we might use to target EJ and/or sensitive populations: Seniors: In-person events, paper surveys, "meetings-in-a-box," storytelling. Youth: Hands-on design charette, digital engagement methods (i.e. hybrid / virtual meetings, online repository, survey, wiki-mapping), social media engagement. Non-English Speakers: All materials will be translated, and all events will have interpreters. Those without access to technology or without technological literacy: Paper surveys, copies of reports, etc. at accessible locations. Families with busy schedules: We will bring events to where people are, rather than asking them to come to us. We also often hold a series of pop-up meetings in the park to sample data from the day-to-day users of the park. Children will be included by providing at least 1 kid-friendly station that allows them to participate in a meaningful way. Those with disabilities: All engagement locations will be accessible. We can also offer sign language interpretation and other accommodations by request. The unhoused / underhoused: This engagement is best done one-on-one, with a community partner who is trusted by the unhoused community and can make introductions.

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

a. Description of Tasks/Activities and Outputs

i. Project Implementation / ii Anticipated Project Schedule / iii. Task Activity Lead / iv. Outputs

TASK # 1 - COOPERATIVE AGREEMENT OVERSIGHT
<p>i. EPA funded tasks/activities: Manage and conduct cooperative agreement (CA) oversight activities which include EPA Reporting (ACRES, MBE/WBE, FFR and Quarterly Reports, Close Out); Per 40 CFR 31.36, competitively procure and manage qualified environmental professional (QEP); Conduct financial reporting and drawdowns; Establish information repository, public website and maintain project files; Site Eligibility Determination Forms for Priority Sites; compliance with Section 106 Historic Preservation Act; executing access agreements with private property owners, as applicable. Project coordination with stakeholders; Ensure program remains on schedule and budget. Travel and attend National and local Brownfields Conference. Non-EPA grant resources needed to carry out task/activity: City will provide in-kind services in the form of staff time for any additional cooperative agreement oversight activities beyond those that have been budgeted.</p>
<p>ii. Anticipated Project Schedule: Lowell will competitively procure QEP by 12/31/24. Kick off program January 2025. Quarterly Reports submitted within 30 days after the end of each reporting period (Jan / April / July / Oct). Annual FFR and M/W/DBE reports submitted by October 30 of each grant year. ACRES updated when assessments are started/completed, new information becomes available and other major milestones. Final Closeout report will be submitted within 90 days after the end of the cooperative agreement.</p>

<p>iii. Task/Activity Lead(s): Lowell will lead this task in coordination with and assistance from the QEP, who will provide technical and programmatic assistance, including eligibility forms, QRs, ACRES, etc.</p>
<p>iv. Output(s): EPA Reporting (ACRES, 4 annual FFR & M/W/DBE reports, 16 QRs, Closeout Report, etc.), RFQ for QEP, procure QEP, grant drawdown requests, eligibility determination forms, executed access agreements, general C.A. oversight and management and attendance at National and Regional Brownfields Conference.</p>
<p>TASK #2 - COMMUNITY ENGAGEMENT</p>
<p>i. EPA-funded activities for the priority sites: Lowell will lead efforts to inform and engage the Target Community, with a focus on input into the site selection for Assessment and Cleanup/Reuse Planning activities for Priority Sites and carefully considering and incorporating the community’s feedback into the decision-making process. Outreach materials will be prepared for posting on the City’s website and social media platforms. Updates will be made to the City’s website to include the Brownfield Assessment Program information. The City will create promotional materials to publicize any meetings and ensure the Target Area residents are fully engaged, as well as the broader community & stakeholders. Non-EPA grant resources needed to carry out task/activity: City will provide in-kind services in the form of staff time and supplies (i.e., mailings, postage, travel, materials, etc.) for any additional community engagement activities beyond those that have been budgeted.</p>
<p>ii. Anticipated Project Schedule: Community Outreach activities are expected to commence Winter/Spring 2025 and occur throughout the performance of the grant to September 2028. City anticipates completing a minimum of three (3) public meetings no later than Summer 2028, one for each priority site, to discuss assessment result and gather input and feedback into the cleanup & reuse planning process.</p>
<p>iii. Task/Activity Lead(s): Lowell will lead community engagement activities. QEP will be the City’s partner and will provide support with technical expertise and other community outreach assistance, as well as assistance with identifying and prioritizing additional potential sites, if applicable. Translation services can be provided in house or through new or existing competitively procured contracts with local translation firms.</p>
<p>iv. Output(s): Outreach materials, flyers, website updates, public notices, public meeting presentation materials, email blasts, handouts, including translations and coordination with project partners and stakeholder. Engage Target Community and general City public.</p>
<p>TASK #3 - PHASE I & PHASE II ASSESSMENTS</p>
<p>i. EPA-funded activities for the priority sites: Phase I Environmental Site Assessments (ESAs) will be completed in accordance with ASTM Standard Practice for Environmental Site Assessments: E 1527-21 and EPA’s “All Appropriate Inquiry”. Site-specific Quality Assurance Project Plans (QAPPs) will be prepared and approved by EPA prior to Phase II activities. Phase II ESAs/ HBM surveys will be completed to confirm/dismiss presence of impacts at sites in accordance with ASTM’s most current standard. QEP will conduct Phase II ESAs/HMB surveys, help enroll sites into the state’s voluntary cleanup program (if appropriate) and prepare report(s) for regulatory compliance. Non-EPA grant resources needed to carry out task/activity: Although it is not anticipated, the City can apply for supplemental assessment funding from MassDevelopment, MassDEP and/or EPA TBA program if needed. City will also provide in-kind services in the form of staff time, as needed, to support Task 3 activities.</p>
<p>ii. Anticipated Project Schedule: Commence Phase I ESAs in Spring 2025. Assessment activities at Target Properties will be conducted to maximize efficiencies and available resources, when feasible. Phase I/ II ESAs expected to be completed Spring - Fall 2027.</p>
<p>iii. Task/Activity Lead: QEP conduct Phase I/II ESAs & QAPPs. City personnel review reports for accuracy/completeness. City, with QEP, will enroll sites into the MA voluntary cleanup program, if applicable.</p>
<p>iv. Output(s): Four (4) Phase I ESAs and five (5) QAPPs/Phase II ESAs / HBM survey. Enroll sites in Massachusetts State voluntary cleanup program, if applicable. If funds remain, same Phase I/II ESA activities are expected to be completed on other sites selected by community using same criteria used to select the initial priority sites.</p>
<p>TASK #4 - CLEANUP PLANNING & AREA WIDE PLANNING</p>
<p>EPA-funded activities for the priority sites: Cleanup/reuse planning will be conducted in accordance with EPA’s Greener & Sustainable Remediation (GSR) guidance and will consider the climate resiliency of the proposed cleanup/reuse. The Phase II ESAs will be utilized to develop an Analysis of Brownfields Cleanup Alternatives (ABCA)/Reuse Plan for each Priority Site. Proposed remedial alternatives will be evaluated based on cost, feasibility, and effectiveness in protecting human health and the environment. This task may also evaluate options for compliance under the MCP / state voluntary cleanup program, if applicable, identify response actions and/or land use restrictions to achieve regulatory closure. Area Wide Planning (AWP) activities for pedestrian and bicycle path connections associated with brownfields cleanup/reuse sites will also be conducted. Non-EPA grant resources needed to carry out task/activity: None anticipated. City will provide in-kind services in the form of staff time for any additional activities beyond those that have been budgeted.</p>

iii. Anticipated Project Schedule: Commence Spring 2026. City is confident all grant work can be completed within 4 years by September 30, 2028.
iv. Task/Activity Lead(s): QEP leads ABCA/Reuse Plans. City personnel will review reports for accuracy and completeness.
v. Output(s): Five (5) ABCAs/ Reuse Plans for priority sites.

b. Cost Estimates - Lowell is requesting \$500,000 to be used to complete the tasks discussed above. Costs have been estimated based upon past experience with tasks and estimates from QEPs: *Task 1: Personnel* = \$12,300 (~4.25 hrs/mo x 48 mo x \$60/hr); *Travel*: \$9,000 Brownfield Conferences [2 attendees (registration, travel, lodging, per diem) for 1 national conference at \$2,500/pp, plus 2 regional conferences at \$1,000/pp/conference]; *Contractual* = \$38,000 [QRs (16 @ \$200 ea. = \$3,200) / ACRES (~2 hrs/quarter x 16 qtrs @ \$150/hr = \$4,800) / general Programmatic Oversight Assistance (~4 hrs/mo. x 48 mo. x \$150/hour = \$28,800) / annual & closeout report assistance (~ 2 hrs/yr x 4 yrs @ ~\$150/hr = \$1,200)] **Task 2: Personnel = \$8,100 (135hrs x \$60/hr); *Contractual* = prepare presentation materials and attend 3 public meetings (\$2,500 each = \$7,500) plus general public involvement activities and generation of additional outreach materials, survey, etc. (\$150 x 60hrs = \$9,000) plus Translation Services for meetings and materials (\$100x40hrs=\$4,000) **Task 3: Personnel** = \$2,500 (~3 hr x 14 reports x \$60/hr); *Contractual* = 4 Phase I ESAs @ \$30,000 (ave. \$7,500 ea.) + 5 QAPPs @ \$25,000 (ave. \$5,000 ea.) + 5 Phase II ESAs @ \$315,000 (\$85K for Parcels 15 & 16 + \$130K for Parcels 11 & 12 + \$100K for Appleton St parcels assuming assessment activities can be conducted to maximize efficiencies and available resources). **Task 4: Personnel** = \$2,100 (~7 hrs x 5 reuse plans/reports x \$60/hr); *Contractual* = five (5) ABCA/Reuse Plans = \$37,500.00 (ave. \$7,500 ea parcel) plus \$55,000 for AWP activities for pedestrian/bicycle path connections associated with reuse of priority sites. *Please note, no fringe, indirect, equipment, supply, construction or other costs requested.***

Budget Categories		Project Tasks				Total
		Task 1: CA Oversight	Task 2: Community Engagement	Task 3: Phase I / Phase II Assessments	Task 4: Cleanup & Reuse Planning	
Direct Costs	Personnel	\$12,300	\$8,100	\$2,500	\$2,100	\$25,000
	Travel	\$9,000				\$9,000
	Contractual	\$38,000	\$20,500	\$315,000	\$92,500	\$466,000
Total Direct Costs⁴		\$59,300	\$28,600	\$317,500	\$94,600	\$500,000
Total Budget		\$59,300	\$28,600	\$317,500	\$94,600	\$500,000

c. Plan to Measure and Evaluate Environmental Progress & Results - Lowell will track and measure progress with support from the QEP, in ACRES and similar fashion as it has with its other previous successful grant projects. Lowell Project Manager (PM), who is the Chief Design Planner for the Lowell Department of Planning & Development, will establish a work plan, to be approved by EPA, that will guide project implementation. Data will be entered into ACRES at appropriate milestones as well as long-term outcomes such as the number of jobs created, funding leveraged; and the number of acres made ready for reuse. Reports prepared to satisfy state VCP requirements will further document assessment activities and the proposed remedial actions to minimize exposure. The PM will create and utilize internally designed tracking sheets, and utilize project management software, to track quarterly reporting, timelines, expenditures, and project progress and to ensure grant funds are expended as planned within the 4-year grant period. This process has been followed in the past and has been successful and effective.

4. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

a. Programmatic Capability

i. Organizational Capacity/ii. Organizational Structure/ iii. Description of Key Staff

EPA Assessment Grant management and reporting will be coordinated by full-time Chief Design Planner, Sarah Brown, who has been a member of the staff for approximately 13 years, holds a degree in environmental engineering, has over 5 years of experience in environmental consulting and has successfully managed eight

(8) previous EPA Brownfields Grants. The Chief Design Planner will be supported by a team of personnel in the Department of Planning and Development including the City’s Design Planner, Jess Wilson and the City’s Environmental Planner, to be hired prior to the award of these funds. Financial management of the grant will be conducted by the Chief Design Planner with the assistance of a highly qualified accounting team in the Department of Planning and Development. All staff has extensive experience in managing multiple Federal and State grant programs for brownfields, parks and redevelopment projects. This experience ensures that the City will complete the timely and successful expenditure of EPA funds. All legal assistance related to grant management can be provided in house by the City of Lowell’s Law Department.

iv. Acquiring Additional Resources - In order to acquire expertise and resources required to successfully complete grant activities, the City of Lowell will seek to procure a Qualified Environmental Professional (QEP) / MassDEP-approved Licensed Site Professional (LSP) to generate required cleanup planning documents and oversee the remedial action at the Site through a “Request for Qualifications” (RFQ) process, as outlined in the Commonwealth of Massachusetts procurement regulations under the Uniform Procurement Act, M.G.L. Chapter 30B, and in conformance with federal requirements. In Massachusetts, LSPs are required to oversee MCP regulated response actions and ensure the work performed on brownfields sites are completed in accordance with state regulations. RFQs are a competitive bidding process that the City has extensive experience with which is coordinated through the City’s Chief Procurement Officer, P. Michael Vaughn, and the Law Department. The time from RFQ to completed contracts is approximately three (3) months. The City of Lowell, in conjunction with the QEP, are anticipated to have all the necessary resources to execute the project and administer the grant. However, the City has policies and procedures in place for the competitive and equitable procurement of any additional expertise and/or resources that may be needed, such as certain translation services, including Khmer and Swahili. Additionally, Lowell works to promote strong labor practices through collaboration with the MassHire Lowell Career Center. MassHire is the City’s local workforce agency that proactively works with union and non-union trades companies to connect local workers with available jobs in the community.

a. Past Performance and Accomplishments

(1) **Accomplishments** - Lowell has a long history of successful grant management with EPA grant funding Lowell is currently managing an FY20 EPA Community Wide Assessment Grant. The current program was kicked off in January 2022. A QEP was selected following a competitive, public solicitation. This QEP has conducted cleanup and reuse planning work for the Target Site of this application. A total of three (3) sites have been carried through various stages of assessment under the FY20 grant. Under its FY14 EPA Community Wide Assessment Grant, Lowell assessed three (3) sites. Two (2) sites assessed under this grant were redeveloped beginning in 2020 and resulted in the construction of two buildings containing 125 mixed-income residential units and 5,000 square feet of commercial space. The City was also fortunate enough to receive an FY2010 Brownfields Area-Wide Planning Pilot Grant for the Ayers City Industrial Park Plan.

(2) **Compliance with Grant Requirements** - The City is in compliance with all grant requirements for its FY20 Assessment grant. A one-year extension was granted for the FY20 grant because of delays due to the Covid-19 pandemic. It is expected that all remaining funds (~\$72k) will be utilized for the ongoing assessment of two parcels that the City hopes to prepare for future remediation and will be expended on or before 9/30/24. Expenditure of funds is on track and on budget. For the duration of all previously held Brownfields grants identified above, the City worked diligently to remain in compliance with all grant requirements, including work plans, schedules for the expenditure of these funds, terms and conditions, and all required quarterly, ACRES, and MBE/WBE reporting. A one-year extension was also granted for the City’s FY14 assessment grant. All funds were expended except for \$1.28 due to an hourly billing rate balance.

City of Lowell, MA - Threshold Criteria for Community-wide Assessment Grants

1. Applicant Eligibility

- a) The City of Lowell is an eligible applicant as a “General Purpose Units of Local Government” as defined under 40 CFR Part 31.
- b) The City of Lowell is not subject to section 501(c)(4) of the Internal Revenue Code.

2. Community Involvement

The City of Lowell has engaged with the community for the redevelopment of the JAM Plan area since 2000. Lowell has maintained continuous engagement with the community about the Sites and the proposed redevelopment strategies since that time through numerous planning processes including the Hamilton Canal District Master Plan, Sustainable Lowell 2025 and the Lowell Forward Master Plan, which is currently underway. Numerous public meetings, surveys and other engagement strategies have been utilized over time to continue the conversation of how to approach redevelopment of these critical areas in downtown Lowell.

In conjunction with the City’s application for assessment grant funds from U.S. EPA, Lowell has also applied for PRO-Housing Grant funds from the U.S. Department of Housing and Urban Development for the creation of pad-ready sites in an effort provide much-needed affordable housing. Through the planning process for those efforts and the assessment of the Sites identified in this application, the City will continue the conversations around reuse strategies for the Target Area. The City will partner with Community-based Organizations to leverage communication networks and spread word to gather input.

Methods used to engage target EJ and/or sensitive populations will include:

- Seniors: In-person events, paper surveys, "meetings-in-a-box," storytelling.
- Youth: Hands-on design charette, digital engagement methods (i.e. hybrid / virtual meetings, online repository, survey, wiki-mapping), social media engagement.
- Non-English Speakers: All materials will be translated and all events will have interpreters. Those without access to technology or without technological literacy: Paper surveys, copies of reports, etc. at accessible locations.
- Families with busy schedules: We will bring events to where people are, rather than asking them to come to us. We also often hold a series of pop-up meetings in the park to sample data from the day-to-day users of the park. Children will be included by providing at least 1 kid-friendly station that allows them to participate in a meaningful way.
- Those with disabilities: All engagement locations will be accessible. We can also offer sign language interpretation and other accommodations by request.
- The unhoused / underhoused: This engagement is best done one-on-one, with a community partner who is trusted by the unhoused community and can make introductions.

Feedback received from the community at all stages will be carefully considered and incorporated into the decision-making process.

3. Expenditure of Existing Grant Funds

The City of Lowell does have an open Assessment Grant. The remaining balance on existing funds as of October 1, 2023 is \$79,063.75 and is expected to be fully expended prior to the start of the next Federal fiscal year. The City has expended ~74% of its existing Assessment Grant.

4. Contractors and Named Subrecipients

- Contractor(s): Not applicable. Contractor(s) will be selected in compliance with the fair and open competition requirements in 2 CFR Part 200 and 2 CFR Part 1500 subsequent to award. Lowell will follow public procurement best practices including EPA’s Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements, Massachusetts public procurement law, and City of Lowell guidelines and ordinances, including equitable procurement practices.
- Named Subrecipients: Not applicable.