

# A Model Regional Resilience Network with Resilient Infrastructure

Applicant Information	City of Ann Arbor, Dr. Missy Stults, Sustainability and Innovations Director, 301 E. Huron Street, Ann Arbor, MI 48104; <a href="mailto:mstults@a2gov.org">mstults@a2gov.org</a> ; 734-794-6430 x 43725
Environmental Issues	Community-led air and water-related improvements focusing on increasing resilience and decarbonization of disadvantaged communities
Project Abstract	Resilience, the act of bouncing forward regardless of what acute or chronic disruption occurs, is an often aspired to goal but one that has remained out of reach for most communities, especially low-income and BIPOC residents. And with increasing climate related impacts and growing socio-economic disparity, the need for resilience has never been greater. This proposal will demonstrably improve the resilience of the most vulnerable residents in Ann Arbor and Washtenaw County by co-developing a living regional resilience network that allows for the continual investment in the adaptive capacity and enhancement of local social cohesion for the region’s frontline and most vulnerable populations. Working groups of the network will create facilitated communication channels to assist network partners in resource pooling, collective emergency response, and other acts of mutual aid. This proposal also calls for investments in four local brick and mortar resilience hubs and the creation of a resilience grant program that fosters a connective tissue between the various hubs. This interconnected resilience infrastructure will ensure the most vulnerable residents don’t just survive but thrive every day.
Project Type(s)	Climate resilience enhancements; Mitigating climate and health risks from extreme heat and flooding; and Community-led air and other pollution monitoring, prevention, and remediation, and investments in low-and zero-emission and resilient technologies and related infrastructure that help reduce greenhouse gas emissions and other air pollutants.
Underserved Communities	Tenants at Affordable Housing Sites in Ann Arbor (48104); Underhoused residents (48104 and 48103); BIPOC residents that frequent Peace Neighborhood Center (48103, 48104, 48108, and 48197); and low-income, primarily BIPOC residents in Ypsilanti (48197, 48198 and 48105).
Special Considerations	Climate Change/Disaster Resiliency – specifically focusing on increasing the resilience of frontline and underserved populations that are particularly vulnerable to climate impacts. The work will also provide benefits for rural communities within Washtenaw County by creating a county-wide resilience network that serves urban, suburban, and rural stakeholders.
Project Partners	Community Action Network (CBO); Dr. DeYoung (academia); Washtenaw County (gov.); Shelter Association of Washtenaw County (CBO); Ann Arbor Housing Commission (housing agency); Avalon Housing (housing agency); Elevate (CBO); Scio Township (gov.), Ann Arbor Public Schools (school); Peace Neighborhood Center (CBO); FedUp Ministries (CBO); Ypsilanti Public Schools (school); City of Ypsilanti (gov.)
QAPP	Not needed

## Disproportionate Environmental and Public Health Issues Impacting Underserved Communities

Washtenaw County, Michigan is the ancestral, traditional, and contemporary lands of diverse native peoples including the Anishinaabe (ä-ni-shi-'nò-bā), including the Odawa, Ojibwe (ō-'jib-wā) and Potawatomi (pä-tə'wätəmē), as well as the Wyandot (wī-ən-'dät) peoples. The taking of this land was formalized, in a process alien to native cultures, by the Treaty of Detroit in 1807. Knowing where we live, work, study, and recreate does not change the past, but a thorough understanding of the ongoing consequences of this past can empower us in our work to create a future that supports human flourishing and justice for all individuals. This knowledge is a grounding feature of our shared work to create a more sustainable, resilient, and equitable future for all Washtenaw County residents.

Located in southeast Michigan, Washtenaw County covers 720 square miles of urban, suburban, and rural settings (Figure 1). Approximately 354,000 residents call Washtenaw County home, with the largest city being Ann Arbor with a population just over 120,000. The county, and in particular the City of Ann Arbor, is one of the most economically vibrant, educated, and healthy places in Michigan – but not all residents share in this prosperity. This is evidenced by the county’s dubious honor of being the eighth most economically segregated metropolitan region in the country, with a 10-year difference in life expectancy between African American and white residents, and a 16-year difference in life expectancy between Latino/a/x and white residents. Moreover, 60% of African Americans in the county live in low-opportunity areas with limited job growth. And a 35-point gap exists on reading tests between African American and white students in the County<sup>1</sup>.



Figure 1: Location of Washtenaw County

These discrepancies are unacceptable. And yet we know that units of local government helped create and perpetuate the conditions that allow these disparities to exist and grow. Addressing these disparities requires an all-stakeholder approach.

That is why, as the County and communities within the County (e.g., the City of Ann Arbor and the City of Ypsilanti) work to become carbon neutral, it is imperative that this works centers the needs and lived experiences of our frontline and fence line populations. Recognizing this, Ann Arbor ([A<sup>2</sup>ZERO](#)), Ypsilanti ([Sustainability Plan](#)), and Washtenaw County ([Resilient Washtenaw](#))

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<sup>1</sup> New “One Community” Equity Initiative Launches. 2018. <https://www.a2gov.org/news/pages/article.aspx?i=447#:~:text=Washtenaw%20County%20is%20the%20eighth,a%2F%20and%20white%20residents.>

set equity as one of the core values of their climate work and all have placed an emphasis on enhancing the resilience of our most vulnerable residents.

In this context, resilience is framed as the ability to bounce forward, regardless of what acute or chronic stressors may exist. This definition of resilience centers the importance of adaptive capacity and strong social cohesion, as these are the ties that allow residents to not just survive, but to thrive every single day, regardless of what disruptions takes place. Creating this type of resilience

necessitates investments in social, cultural, physical, and institutional structures as well as the connective tissue that unites these structures. That is the purpose of this proposal – to create an interconnected system of institutional structures that, together, enhance the resilience of our most vulnerable residents!

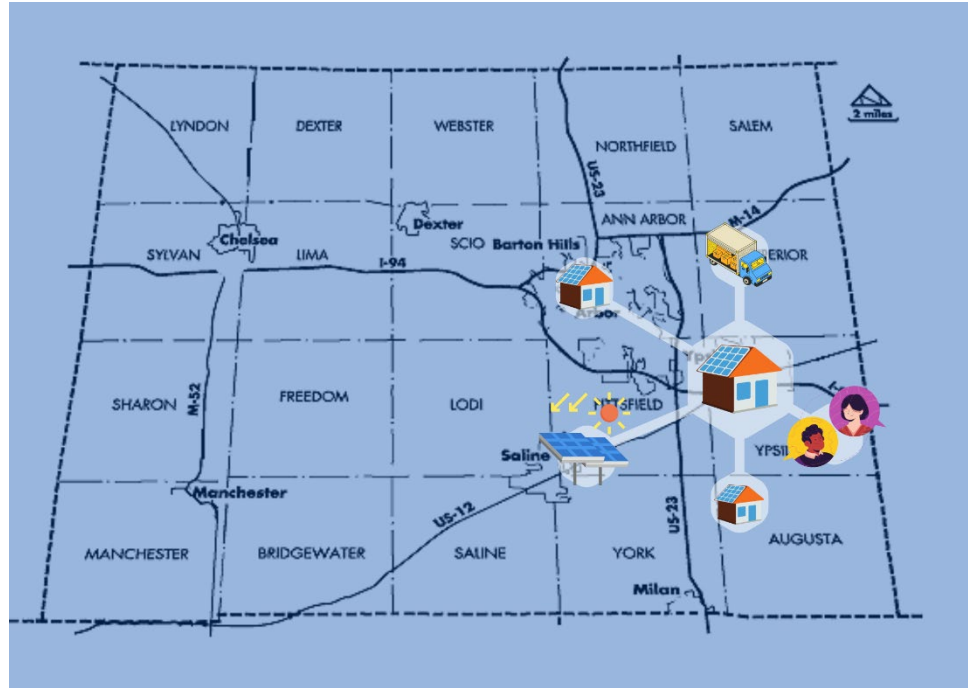


Figure 2: Rough visual of an interconnected resilience system.

Led by the City of Ann Arbor, this proposal strives to enhance the resilience of our most vulnerable local and regional residents by working directly with underrepresented stakeholders and the community-based organizations that serve them, to create a regional resilience network with associated physical infrastructure that is resilient to climate-related disruptions. More specifically, this proposal focuses on building a county-wide resilience network supported with four additional resilience hubs (three grant funded and one funded through matching dollars). The location for two of the grant funded resilience hubs and the match-funded hub were identified using the [Washtenaw County Opportunity Index](#) (Figure 3) and through conversations with local community stakeholders and community-based organizations. These three locations are: Peace Neighborhood Center (match funded), the Ann Arbor Housing Commissions' Green Baxter Court affordable housing site, and the Ypsilanti Public Library.

The Washtenaw County Opportunity Index was used throughout this proposal instead of the EPA's EJ Screening Tool because the Opportunity Index provides specific, local information about key vulnerabilities within our region. The data mapped aligns with local goals related to equity and resilience and, as such, the tool provides a baseline calculation that can be used to measure the impact of this project (and others) over time. The Washtenaw County Opportunity Index was created by Washtenaw County as a visual tool to assess access to opportunity across the county,

identifying disparities across demographics and geography in access to safe and affordable housing, quality education, employment, adequate healthcare, and stable neighborhoods.

Using the Washtenaw County Opportunity Index, project partners identified hotspots within the County where socio-economic vulnerability, as determined by the factors noted above, was the highest. These hotspots were then checked against the [Michigan EJScreen tool](#) (MiEJScreen), with similar results (Figure 4). While much of Washtenaw County ranks in the lower percentiles of the MiEJScreen overall score, there are distinct pockets that rank in the 80<sup>th</sup> and 90<sup>th</sup> percentile, particularly in the downtown areas of both Ann Arbor and Ypsilanti as well as pockets around both cities. Overlaying the Washtenaw County Opportunity Index and MiEJScreen allowed project partners to identify strategic areas of low opportunity and environmental justice communities in the county. The search was supplemented by discussions with community-based organizations to identify gaps

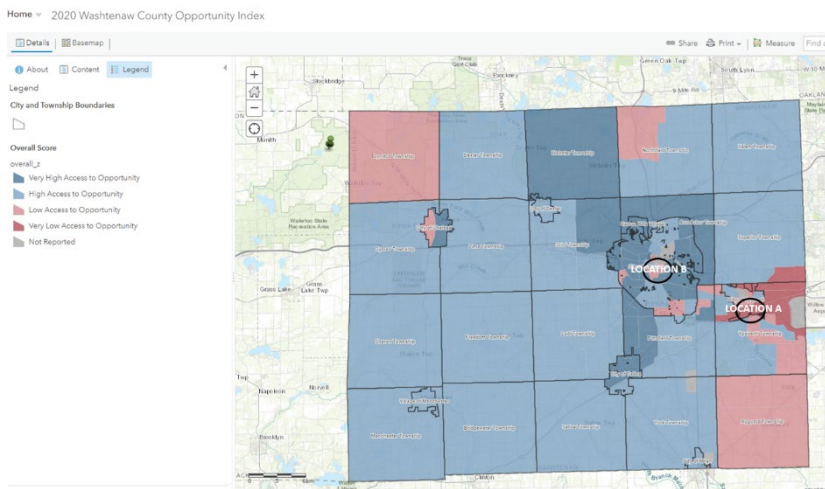


Figure 4: Results from the Washtenaw County Opportunity Index

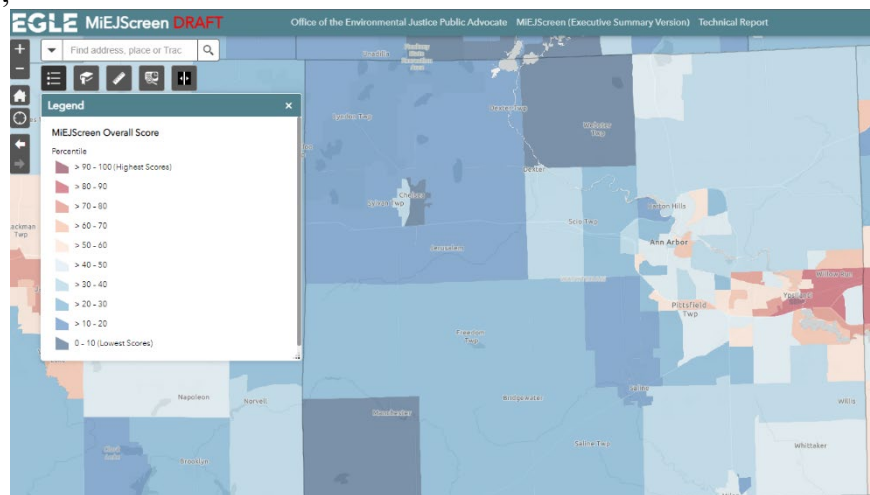


Figure 3: The MiEJScreen overall score for Washtenaw County

that the data is not granular enough to show. These analyses allowed us to ensure the proposed resilience network is centering our most vulnerable populations and those that serve them, and that our proposed resilience hubs are in (and designed by) frontline populations.

### Resilience Hub One: Ypsilanti Public Library

The first identified location for resilience hub deployment is the Ypsilanti Public Library, located in the center of the City of Ypsilanti. This library serves an area of Ypsilanti (Figure 5) that ranks in the 94<sup>th</sup> percentile of the overall MiEJScreen score, with sub score breakdowns of 81<sup>st</sup> in environmental conditions (69<sup>th</sup> in exposure, 93<sup>rd</sup> in environmental effects) and 98<sup>th</sup> in population characteristics (94<sup>th</sup> in sensitive populations and 96<sup>th</sup> in socioeconomic factors). Breaking down

these categories further, the area ranks in the 90<sup>th</sup> percentile for low-income populations, 82<sup>nd</sup> for BIPOC residents, and 89<sup>th</sup> for housing burden. The area also ranks in the 80<sup>th</sup> and 90<sup>th</sup> percentiles for asthma, cardiovascular disease, low birth weight infants, and life expectancy. Each of these statistics are highly correlated with vulnerabilities to extreme weather events and climate change.

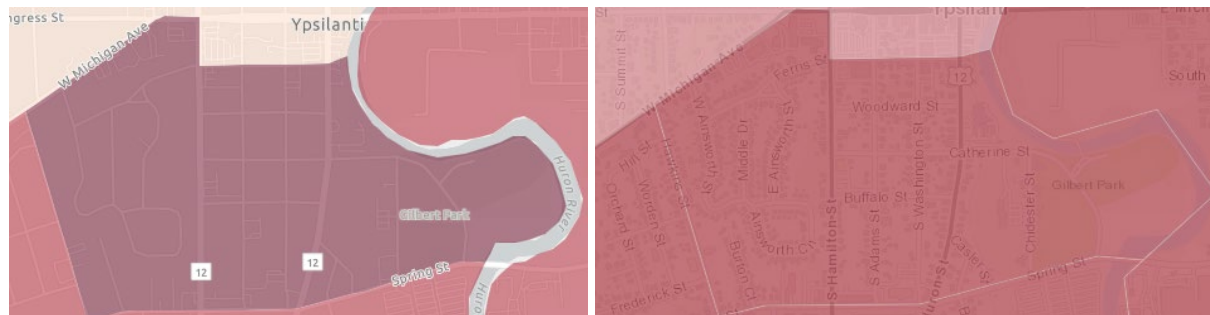


Figure 5: An area of downtown Ypsilanti on the MiEIScreen (left). The dark red color indicates it is in the 94<sup>th</sup> percentile while the lighter red indicates the 80<sup>th</sup>-90<sup>th</sup> percentile. On the right is the same area using the Washtenaw County Opportunity Index. The dark red indicates very low access to opportunity.

### Resilience Hub Two: Green Baxter Court Affordable Housing Community

The second location for a resilience hub is the community center at the Green Baxter Court affordable housing community, located in the center of the City of Ann Arbor. While the area is in the 56<sup>th</sup> percentile for socioeconomic factors, it ranks in the 70<sup>th</sup> percentile for low-income populations, the 84<sup>th</sup> percentile for BIPOC residents, the 94<sup>th</sup> percentile for linguistic isolation, and the 95<sup>th</sup> percentile for housing burden (Figure 6). Additionally, the area is in the 65<sup>th</sup> percentile for health vulnerabilities and exposure, ranking in the 73<sup>rd</sup> percentile for respiratory hazards, the 79<sup>th</sup> percentile for diesel particulate matter, and the 76<sup>th</sup> percentile for traffic density. Looking at the demographics of residents at Green Baxter Court specifically (Figure 6), 87% are considered extremely low income (0-30% AMI), 9% are very low income (30-60% AMI), and 4% are low income (51%-80% AMI). Additionally, 83% identify as Black/African American, despite Black/African Americans making up only 6.7% of Ann Arbor Residents ([U.S. Census, 2020](#)).

In the neighborhood, there is a community center operated by Community Action Network (CAN). As they do across their network, CAN educates children and youth through summer camps and free after school programs, stabilizes families with utility shut-off protection and food distribution services, and builds community through relationship building events, partnering with City safety departments to build positive relationships, and tending a community garden. Given the existing activation of and the community's trust of the community center, this site has been selected as the second resilience hub.



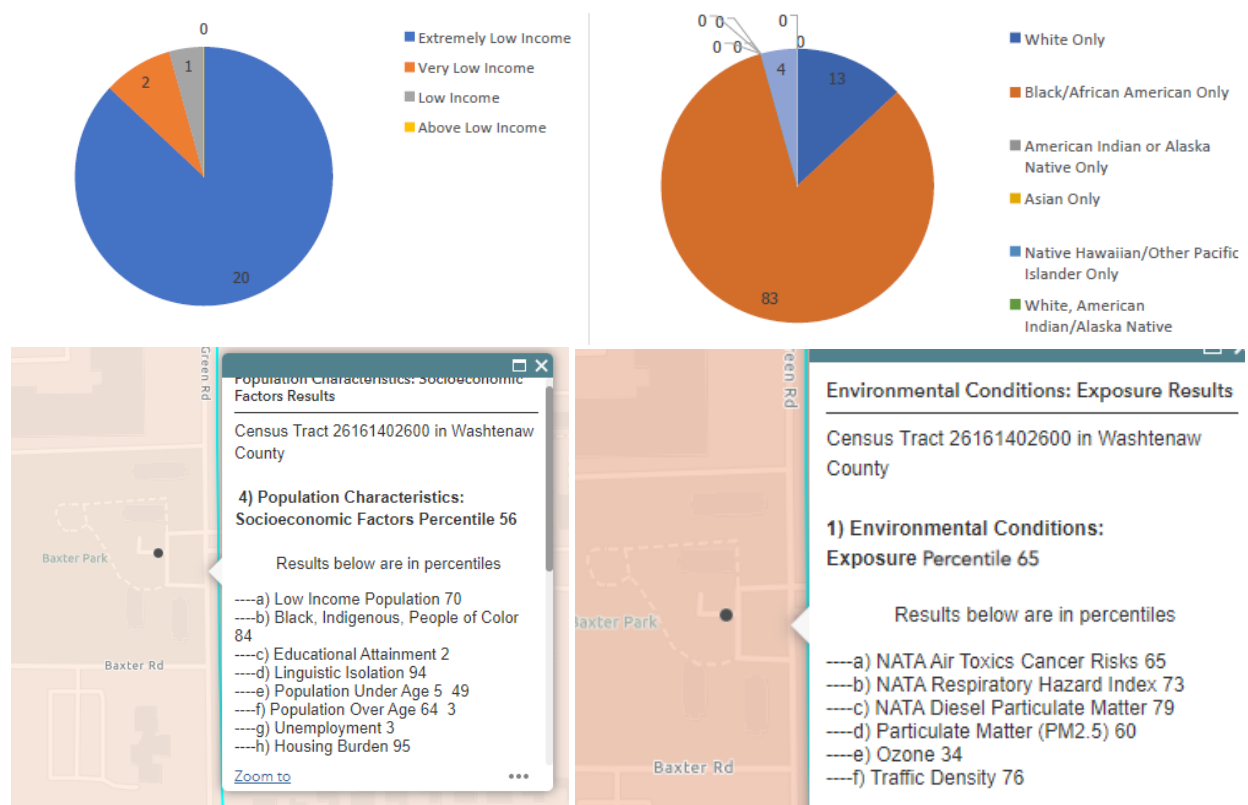


Figure 6: Demographic data for the Green Baxter Court affordable housing community (the black dot) and surrounding area.

### Resilience Hub Three: Peace Neighborhood Center

The third location identified for a resilience hub is Peace Neighborhood Center in Ann Arbor. For 50 years, Peace has worked to make the Washtenaw community better and break the cycle of poverty – one person at a time. Peace’s programs are focused in two areas: youth services and adult services. Youth services include a continuum of after-school and summer programming for youth from K-12 and beyond, with the end goal of college or trade school graduation. Peace provides academic support, enrichment activities, nutritious food, mentoring, and support for college, financial aid, and scholarship applications. The adult services start by recognizing that one cannot fully support a young person without engaging with their families. That is why their adult services include family enrichment programming, case management and advocacy, emergency assistance, job placement, individual counseling, and substance abuse and recovery support. And Peace reflects the community they serve: 80% of their staff and 75% of those they serve identify as people of color.

In addition to serving primarily BIPOC residents from across the County, we know their physical headquarters on the west side of Ann Arbor faces several areas of concern, including an overall pollution burden in the 57<sup>th</sup> percentile, with specific highs in their proximity to cleanup sites (84<sup>th</sup> percentile) and wastewater discharge (93<sup>rd</sup> percentile) (Figure 7). Similarly, the area ranks in the 52<sup>nd</sup> percentile for environmental health exposure, with highs for traffic density in the 78<sup>th</sup> percentile and diesel particulate matter in the 68<sup>th</sup> percentile. For these reasons, Peace was chosen as the site for our third (match funded) resilience hub.

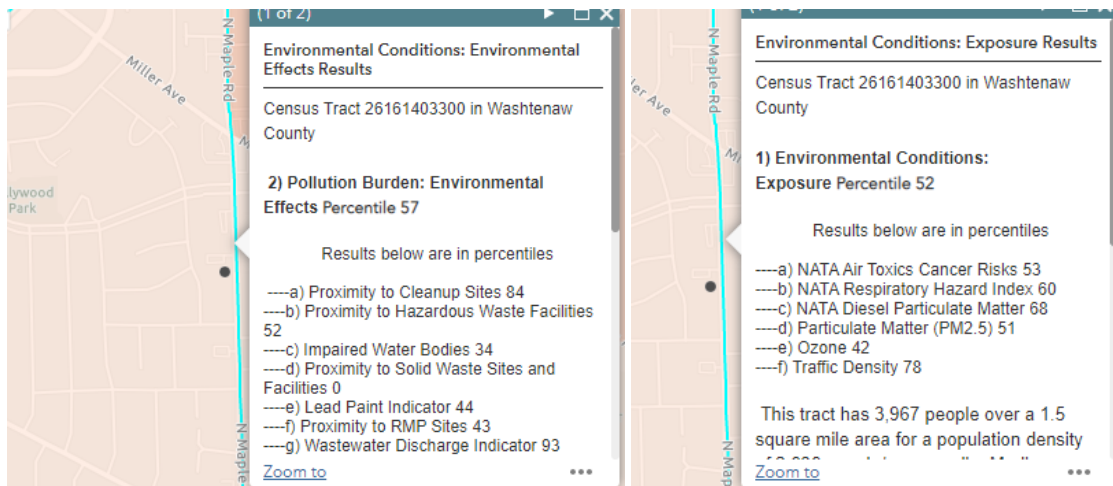


Figure 7: Peace Neighborhood Center on MIEJScreen. The Center is the black dot.

### Resilience Hub Four: To Be Determined

The fourth and final location for a proposed resilience hub has intentionally been undetermined. The reason for this is to allow the community and members of the resilience network to collaboratively determine the location for the final site.

### Regional Resilience Network

The regional resilience network will serve as the connective tissue between the resilience hubs and other existing or to-be fostered resilience-based services. This network will create a new collaborative approach, generating opportunities to improve how we collectively provide services to our most vulnerable populations on a day-to-day basis and after a climate-related disaster. The network coupled with the brick-and-mortar resilience hubs will help build trust and give both those who provide a service and those who receive the service the ability to co-create solutions. The regional resilience network will break down existing silos, create new partnerships, and align and create regional-based approaches to building community resilience where it is needed most. The vision is that this network not only helps to build resilient communities with our underserved populations but also creates a shared vision and collective capacity to make all of Washtenaw County more resilient.

### Summary on Disproportionate Environmental and Public Health Issues

Looking across each of the areas identified above, there are common patterns: in each area the demographics show significantly higher rates of BIPOC and low-income residents than the city and county. The areas, even when skewed by the surrounding community demographics due to a history of gentrification, are considered areas of low opportunity. And they face higher than average levels of diesel particulate matter, traffic density, proximity to cleanup sites, and wastewater discharge.

In addition to all these variables, lived experience shows that the residents of these communities are at much higher risk to disruptions from severe weather, especially power outages than peers in

other areas of the county. In the last few years, several multi-day power outages have led residents in these regions to lose food and medications, causing considerable health impacts and increased financial burden to simply exist, let alone restore what was lost. And few locations exist where individuals and families in need can go during a disaster, let alone every single day for the critical support services they need to survive.

That is why we are targeting these areas first for our resilience hubs and for deployment of our resilience network. Each resilience hub will be powered by renewable energy with battery storage, instantly decreasing emissions and improving air quality in the communities. They will have updated stormwater retention features, be stocked with food and emergency supplies, and have other community-defined upgrades and programming to ensure they are responsive to the community's specific needs. The hubs will provide a place for residents to go every day to get critical services, including during extreme weather events. And by locating the resilience hubs directly in underserved communities that have already established community structures and co-designing them directly with the residents they will serve, we will ensure that access to the hubs, the services provided, and the communication surrounding them are baked into the existing community to meet their unique needs.

### Organization's Recent Efforts to Directly Support Underserved Communities

The City of Ann Arbor has a demonstrated history of building relationships and providing direct support to underserved residents. Below are three specific examples that demonstrate a track record of prioritizing frontline and vulnerable peoples in our climate-related work. Additional examples, such as our work to create net zero energy affordable housing sites or launch a low-income community solar program are available on our website: [www.a2gov.org/sustainability](http://www.a2gov.org/sustainability).

**Aging in Place Efficiently** - Established in 2020, the Aging in Place Efficiently (AIP-E) initiative is a grant funded program administered by the City of Ann Arbor and [Michigan Saves](#), the nation's first nonprofit green bank, that assists income qualified, older adults with safely and comfortably staying in a place of their choosing for as long as possible. Participants in AIP-E are at least 60 years of age, do not have assets more than \$50,000 (excluding primary residence and saved retirement funds), and have a monthly income at or below 80% of the Area Median Income. The program focuses on three areas of improvements: (1) home comfort, (2) improved efficiency to reduce energy bills, and (3) safety. To ensure that the most pressing needs of program participants are met, a social worker and occupational therapist perform in-home assessments. Prior to home improvements 65% of participants kept their home at uncomfortable temperatures to save money on energy bills and 47% reported having difficulty paying their utility bill. Improvements made through the program reduced 113 Metric Tons of CO2 over the lifetime of the improvements and are projected to save participants over \$45,000 in energy costs. The target audience for this program are vulnerable older adults in Washtenaw County, a growing population. The City of Ann Arbor alone has over 2,177 older adults living below 200% of the Federal Poverty Level with increases expected, in part, due to inflation.

**Bryant Sustainability Project** - Over the last two years, the City of Ann Arbor has worked with Community Action Network (CAN), and the residents in the Bryant Neighborhood of Ann Arbor, a frontline community, to design the first fully decarbonized existing neighborhood in America.



The Bryant neighborhood contains 262 households, of which 75% are considered low-income, 50% are owner-occupied, and the majority are residents of color. In 2020, the City approached the McKnight Foundation and secured a planning grant to work with Bryant residents, along with CAN, to co-design a whole home health, safety, comfort, and decarbonization assessment specifically to improve indoor air quality, resident comfort, and to advance the City’s goals of a just transition to community-wide carbon neutrality by 2030 (known as [A<sup>2</sup>ZERO](#)). This work began in April 2021 and has already uncovered many opportunities to improve indoor air quality and improve resident safety and health, while also highlighting many of the unique and charming elements of the Bryant neighborhood that are valued by residents. In 2022, the project was awarded a Clean and Healthy Neighborhoods grant from the EPA to conduct the assessments, working directly with the residents to assess the efficacy of the assessment methodology and continue to adapt the program to ensure it works *for* the residents. Through these assessments, we have learned what the needs are in Bryant homes and have used those insights to start fundraising to make improvements. And just this year, the project was awarded a grant from the Michigan State Housing Development Authority to begin upgrading 19 homes based on the results of the resident-designed decarbonization assessment. We are currently in the contractor selection process, working directly with the residents to select contractors they are most comfortable with. During this process, we have also identified health issues, such as leaky gas stoves, mold, and structural issues that will be addressed. Going forward, we will continue working directly with the residents to create their version of a fully decarbonized neighborhood to dramatically improve air quality, reduce energy burdens, and create safer and more comfortable homes in this frontline neighborhood.

**Low-Income Sustainability Grant Program** - In fiscal year 2023, the City of Ann Arbor established a low-income sustainability grant pilot, with the goal of assisting low-income residents (defined as 80% AMI or less) with funding some of the upfront costs of improvements necessary to make their homes safer, healthier, more comfortable, and more sustainable. This includes projects that advance sustainability and health outcomes, such as weatherization-related work, renewable energy installations, beneficial electrification, basic home repairs, and aging in place support. The City is currently working with our housing partners – the Ann Arbor Housing Commission and Avalon Housing – to identify locations and improvements that will reduce energy costs and make homes more comfortable while reducing greenhouse gas emissions. This program was a one-year pilot, that will be altered into a full operational program that provides direct incentives to low-income residents to make decarbonization choices. The City is still determining the details of this program, in consultation with partners and residents, but we anticipate the structure being similar to the Inflation Reduction Act where we have funds set-aside for point-of-sale rebates for income qualified residents.

### **Project Linkages**

This project advances EPA’s Strategic Plan Goal 2, Objective 2.1 by working directly with underrepresented and frontline populations to co-design resilience solutions that respond to their unique challenges and opportunities. This work will demonstrate what resilience means to local communities that have been historically left out of conversations regarding climate mitigation and adaptation. It will “flip the script” by giving frontline communities the ultimate decision-making power about what resilience investments to make at each of the key sites and it will compensate them for their time, expertise, and insights. By undertaking work through a co-design process that

is community-led, and compensating people for their time and expertise, we are challenging assumptions about who are knowledge brokers and experts in resilience. Moreover, centering frontline populations in this work allows us to invest in individuals and populations that have historically been underrepresented in the climate change field. While not the direct intent of the proposal, the hope is that engaging in the proposed Resilience Network and participating in the community design charettes and meetings will lead to at least two community members pursuing careers in resilience. These individuals may become formal Resilience Ambassadors (as outlined below) or leverage relationships built through the regional resilience network to find educational or employment opportunities in the climate field.

In addition to aligning with Goal 2, Objective 2.1, this work also aligns with EPA's Strategic Plan Goal 1 (objectives 1.1, 1.2, & 1.3), Goal 4 (objectives 4.1 & 4.2), and Goal 6 (objective 6.2 & 6.3).

### Partners and Collaboration

The City of Ann Arbor has secured multiple formal and informal partners to support development of the regional resilience network and the development of local resilience hubs. The following organizations have all agreed to become founding members of the Community Resilience Network, sharing their staff and expertise to foster greater resilience within Washtenaw County: Ann Arbor Public Schools (school), Community Action Network (CBO), Elevate (CBO), Shelter Association of Washtenaw County (CBO), Avalon Housing (housing agency), Peace Neighborhood Center (CBO), Ann Arbor Housing Commission (housing agency), Washtenaw County (government), City of Ypsilanti (government), Scio Township (government), Ypsilanti Public Schools (school), FedUp Ministries (CBO), and the City of Ann Arbor (government).

Additionally, the following organizations have agreed to work on transitioning their facilities into resilience hubs, allowing them to continue providing their critical services every day, including during disasters. Importantly, not all of these sites will be funded through this grant but all of them realize the importance of resilience and represent extremely important and trusted community institutions: Peace Neighborhood Center (CBO), Avalon Housing (housing agency), Ann Arbor Housing Commission (housing agency), Community Action Network (CBO), the Shelter Association of Washtenaw County (CBO), and the City of Ypsilanti (government).

Finally, we have secured the commitment from Dr. Ray DeYoung to help us design and evaluate the efficacy of the regional resilience network at regular intervals in the project. This will be instrumental in helping ensure the network is serving the needs of its members and inform any needed adjustments.

The accompanying letters of commitment/support profile how each partner anticipates contributing towards the project and our ultimate goals.

### Project Activities / Milestone Schedule / Detailed Budget Narrative

The focus of this 3-year project is to demonstrably improve resilience in Washtenaw County via: 1) strategic investments in enhanced community social cohesion that creates avenues for collaborative resource sharing; 2) the establishment of a regional resilience network, which is a strong, interconnected network of organizations working on resilience or resilience-adjacent

initiatives; 3) strategic investments in four important community-identified and community-serving institutions to help them transition to resilience hubs; and 4) the creation of support infrastructure to ensure the coordination and long-term viability for resilience hubs within Washtenaw County.

Guiding this work are three local climate plans that were created with extensive public input: [Resilient Washtenaw](#), [A<sup>2</sup>ZERO](#), and [Ypsilanti's Sustainability Plan](#). Resilient Washtenaw calls for the establishment of a Resilience Hub network across the entirety of the County, with a hub every 2 miles. A<sup>2</sup>ZERO calls for at least one resilience hub in each of the five wards of the city. And the Ypsilanti Sustainability Plan calls for strategic investments in resilience, including investing in resilience hubs within the City. To-date, two resilience hubs have been created in the County: one at Northside Community Center, which serves as the headquarters for Community Action Network, and the second at Bryant Community Center, which is operated by Community Action Network. Both existing hubs are in the City of Ann Arbor and located in frontline neighborhoods where critical services are provided every day to residents in need.

The City of Ann Arbor has also started conversations with Peace Neighborhood Center about creating the City's next resilience hub. And the City of Ypsilanti has begun discussions about transitioning the Ypsilanti Public Library to a full resilience hub to provide daily services to residents in need. Instead of having these projects unfold in isolation, our proposal strives to unite these efforts under the rubric of a regional resilience network. This resilience network will strengthen the relationships between organizations in our community and across our county, support the creation of new resilience infrastructure, and deepen the relationships between people at neighborhood scales and their local government – all culminating in a more resilient region!

### Phase One: Form a Regional Resilience Network (Months 1-12)

Investing in resilience is a long-term initiative that necessitates trusted relationships and a broad range of expertise, including lived expertise. That is why the first step in our project is to create a regional resilience network comprised of organizations that provide critical services to frontline and disadvantaged communities. The regional resilience network would be an interconnected group of institutions and organizations that are working in a topic related to resilience building. This includes those working directly on disaster response and recovery, affordable housing, social service provision, environmental and human health, local units of government, and others actively working to create a healthy and thriving Washtenaw County.

This phase of work includes seven (7) activities:

- Identify additional community groups and organizations working on resilience related (or resilience adjacent) topics to invite to the network.
- Host preliminary meetings with appropriate staff from organizations to gauge their interest and desires related to participating in an emerging resilience network.
- Host first official meeting of the regional resilience network to decide on collective purpose. Lay foundation for future meeting(s) to decide on co-governance structure, create communication channels for resource pooling and emergency response, and create resilience network governing board (if relevant).
- Host three meetings of the regional resilience network. The regional resilience network will continue to formally meet three times a year in subsequent years.

- Host inner network affinity working groups for network partners to connect with organizations with similar work scopes, learn from each other, identify areas of shared work, and build strong(er) relationships.
- Continue to recruit community groups and organizations into the network with the goal to have multiple organizations from every municipality within Washtenaw County by the end of month 18.
- External reviewer conducts program evaluation to gauge program progress, participant satisfaction, distribution of project resources, etc. at the end of year one and year two.

The City of Ann Arbor is already preparing to host a preliminary conversation with resilience-serving institutions in July of 2023. At this meeting, community partners will convene to discuss what resilience means to their various institutions, what activities they are currently undertaking, and what opportunities they see to foster a regional resilience network. This meeting will serve as the foundation for a future regional resilience network.

Allocated within the grant budget is funding to support Phase One work, including:

- Financial support for organizations to participate in all phases of network development, meetings, etc.
- Materials and supplies for the regional resilience network.
- Funding to support the creation of a regional resilience network governing board.

### Phase Two: Community Resilience Co-Design (Months 3-30)

People who live, work, and play in their neighborhoods everyday are those best positioned to design the innerworkings of a resilient community. That is why centering community knowledge will play an integral role in the co-design of this project. Community members will be financially compensated for their time and for sharing their expertise and local knowledge regarding how best to increase local resilience. A series of community design charettes along with deep and sustained community engagement will be led by a trusted local community-based organization that is selected by the residents. Residents will have a direct say into what the community engagement process looks like, ensuring it is responsive to a diversity of stakeholders needs regarding format, timing, and type of engagement. Insights gained through these engagements will inform both the designs of local resilience hubs as well as the programmatic opportunities and activities of the regional resilience network.

Through this process, residents will be given direct decision-making authority regarding what their local resilience hub looks like, what services it provides, and how it fits into a broader resilience ecosystem. In addition, residents will also be eligible to apply, in partnership with a local community-based organization, for grant funding to enhance local resilience in their neighborhood through a newly created small grant program.

This phase includes seven (7) activities:

- Host community-wide forums in each of the four previously identified geographies to discuss key attributes of resilience and identify trusted community-based organizations.
- Using results from above, generate a list of community-based organizations that could potentially serve as resilience hubs.

- Co-design with residents what resources a resilience hub should have/maintain to meet local needs and how the hub engages with the overall resilience network. Share findings regularly and iterate, as needed, on ideas for how the network supports brick and mortar hubs and the resource distribution between them.
- Secure three community-based organizations to lead resilience hub engagement processes. Create calendar of meetings, living planning materials, including template engagement activities, and work plan.
- Create resilience ambassador program for interested residents to engage in and lead local resilience initiatives.
- Conduct deep canvassing/multi-pronged outreach campaign in each neighborhood to determine what residents want in a resilience network and associated hub, and how the network can best serve local needs while increasing local and regional resilience.
- Develop models of community-designed resilience hubs and a framework that can be used to replicate the formation of a resilience ecosystem in other urban, suburban, and rural communities.

Allocated within the grant budget is funding to assist with community co-design, including:

- Financial support so residents can participate in community meetings and the co-design process.
- Support for childcare and food provision to enable greater public participation.
- Stipends for three trusted CBOs to run deep and sustained community engagement.
- Stipends for ten individuals to serve as resilience ambassadors and engage with residents on a variety of resilience-related opportunities.
- Access to small grants to advance resilience activities in the region.

### Phase Three: Resilience Hub Deployment and Network Growth (Months 18-36)

Based on feedback gathered from the previous steps, the project team will deploy the community-designed resilience hubs in the three chosen locations (plus one additional hub funded through local match), monitor and evaluate the hubs efficacy, and document lessons learned and promising practices. Overall, this phase includes five (5) activities:

- Release a request for proposals for bidders to purchase and install equipment necessary to realize the community's designed resilience hub.
- Celebrate opening of resilience hubs and ensure staff are trained on all elements of the hubs, including how they interact with the regional network, to ensure their long-term operability.
- Create a series of replication guidance materials regarding the process undertaken and key community-identified elements for a resilience hub, which can be shared with communities interested in building out resilience.
- Create resilience hub curriculum for Washtenaw County that provides pathways to sustain durable community connection and service as the resilience hub model scales throughout the region.
- Evaluate impact of resilience hubs in terms of number of residents served, impact of hubs on increasing resilience, changes to Opportunities Index rankings, and shifts in the MiEJScreen scores.



Phase three of the grant budget includes funding for:

- The purchase of solar panels, battery storage, and onsite stormwater features.
- The purchase of additional, community-designed and desired features at each of the resilience hubs.
- Ongoing regional resilience network support to ensure the long-term viability of the hubs and the interconnected resilience network.

### Milestone schedule

<b>Timeline</b>	<b>Milestone</b>
Dec. '23	Regional resilience network kick-off meeting. Begin outlining network vision, timeline, structure, and governance.
Jan. '23	Community wide forums, facilitated by community organizations; begin co-creation process of network and resilience hub model.
Mar. '24	Second official network meeting. Network affinity groups formed. Network continues to actively recruit. Targeted community engagement begins in the three identified areas. Community-based organizations identified to lead long-term and sustained community engagement. Scope of services agreed to and engagement process underway
Jun '24	Regional resilience network meeting. Network governance structure created, and board members selected. Begin outlining Resilience Ambassador program. Groundbreaking for Peace Neighborhood Resilience Hub.
Oct. '24	Next regional resilience network meeting. Launch Resilience Ambassador program.
Dec '24	External reviewer evaluates first year of project. Community engagement ongoing.
Feb. '25	Regional resilience network meeting. Final design confirmed for 2 <sup>nd</sup> resilience hub. Ongoing community engagement. Bids requested to install key community identified features.
May '25	Ongoing community engagement. Groundbreaking for 2 <sup>nd</sup> resilience hub.
Jun. '25	Regional resilience network meeting.
Aug. '25	Recruit next cohort of Resilience Ambassadors.
Nov. '25	Regional resilience network meeting. Finalized design for 3 <sup>rd</sup> resilience hub. Ongoing community engagement around 4 <sup>th</sup> resilience hub.
Dec. '25	2 <sup>nd</sup> year program evaluation completed. Bids requested to install key community identified features for 3 <sup>rd</sup> resilience hub.
Feb. '26	Regional resilience network meeting. Finalized design for 4 <sup>th</sup> resilience hub completed.
April '26	Groundbreaking for 3 <sup>rd</sup> resilience hub. Bids released for construction of 4 <sup>th</sup> resilience hub. Replication guidance materials drafted.
Jun. '26	Regional resilience network meeting. Groundbreaking for 4 <sup>th</sup> resilience hub.
Sep. '26	Regional resilience network meeting. Evaluation of resilience hub and network impact completed, and recommendations made on key adjustments for long-term success.

## Itemized Budget Sheet / Budget Narrative

Please see attached budget sheet and budget narrative in the “other attachments”.

## Environmental Results – Outcomes, Outputs, & Performance Measures

While the project team has identified a series of preliminary outcomes, outputs, and performance measures, to stay true to our commitment to co-design, we acknowledge that these metrics may need to change based on community insights, desires, and needs. To that end, we will begin our project by naming the metrics of success as defined below during our public engagement processes to see if modifications or additions are necessary. Should changes be necessary to respect public insights, we will bring those modifications back to our EPA program officer for consideration. With that as context, the following are the preliminary environmental results (see logic model), performance measurement plan, and sustainability plan for this project.

### Environmental Results – Outputs/Outcomes

Please see attached logic model in the “other attachments”.

### Performance Measurement Plan

Progress tracking will in large part be conducted by an external reviewer to ensure that project objectives, goals, and timelines are being effectively and equitably administered. The external reviewer will be charged with reviewing not only the progress made by the project team but also gathering project partner and community participants’ feedback on the implementation process. Data collection will include quantitative and qualitative methodologies to ensure that distribution of staff time and project funding are serving the core purpose of addressing the needs of underserved communities and vulnerable populations. The governance structure of the network will also be evaluated to ensure that communication channels, resource pooling, and overall working structure creates an effective model for sustaining effective and durable partnerships while growing the number of community-based partners in the network.

### Sustainability Plan and Environmental Justice Implementation

Inherent in this proposal is the call for increased social cohesion and the creation of a support network that addresses not only the physical needs of frontline and underserved populations, but also mental wellbeing. Direct involvement with frontline and underserved communities, as outlined through this proposal, will help build relationships and trust, things that are necessary for long-term collaboration. Moreover, the goal of the proposal is to create a sustainable regional resilience network with associated resilience hubs that can provide continued support services to enhance the adaptive capacity and social cohesion of all regional residents – especially our most vulnerable. And, as noted in the proposal, the physical resilience hubs themselves will be placed in areas that serve the most vulnerable and historically underserved people in Washtenaw County. Lastly, the Cities of Ann Arbor and Ypsilanti, and Washtenaw County realize that work to enhance resilience and decarbonize our communities in a just and equitable manner requires ongoing, sustained, and deep engagement. This project will provide a piece of the key infrastructure needed to advance the goal of a just transition to community-wide carbon neutrality, but there is no illusion that this work will be done once this grant concludes. Instead, this work must continue indefinitely.

## Programmatic Capability

### Organizational experience

The Project Team is composed of professionals with over 100 years combined experience working in and with frontline communities to advance climate action and resilience. The City of Ann Arbor's Office of Sustainability and Innovations is the keeper of the community's climate and equity plan and programs (A<sup>2</sup>ZERO) and works in close connection with the Office of Emergency Management on resilience-focused initiatives. OSI and EM share a staff member – our Community Resilience Specialist, Bryce Frohlich, who will serve as a key team member for this project.

To date, the City has created two resilience hubs, one at Community Action Network's Northside Community Center and the second at Bryant Community Center, also operated by Community Action Network (CAN). Plans are also currently being drafted to transition the Bryant Community Center into a carbon negative facility and using it as a living demonstration site for a series of technologies necessary to help homes and businesses decarbonize (e.g., geothermal, air sealing, energy storage systems, weatherization, electrification). In addition to these two existing resilience hubs, the City has just initiated conversations with Peace Neighborhood Center about working with their constituents to co-design what it would look like to transition Peace into the City's third resilience hub. All these resilience hubs are being designed directly with CBOs (CAN and Peace) and their constituents to ensure the resilience hubs are benefiting underserved and vulnerable populations that daily rely on the critical services provided by CAN and Peace.

Additionally, the City regularly works with more than [100 community collaborators](#), including many CBOs, as part of the A<sup>2</sup>ZERO Collaborators Network to achieve a just transition to community-wide carbon neutrality by 2030. These collaborators work with the City on a variety of policies, programs, initiatives, and outreach campaigns focused on helping the community achieve its climate goals while also improving quality of life, health, and safety.

In addition, through our work with CAN, the Ann Arbor Housing Commission, Avalon Housing, Delonis Center, and others, we regularly develop projects and programs that directly work with underserved communities and vulnerable populations to meet their unique and emergent needs. For example, we have been working with the Ann Arbor Housing Commission for three years to develop a strategy for transitioning every affordable housing site to carbon neutrality. Engagement with residents is helping us understand structural as well as operational changes that need to be made to achieve this goal – allowing us to design solutions likely to be successful in both reducing greenhouse gas emissions while also improving quality of life and reducing the Housing Commissions operational expenses (meaning more money for programming or more affordable housing!) This is just one example of how the City works to directly include frontline residents in the decision-making process.

Finally, as mentioned previously, the City is extremely interested in creating a regional resilience network and has extended invitations to a number of community-serving institutions to convene in July. We plan to use this meeting to gather information about existing resilience activities and needs in the region, and to identify additional partners and residents who should be involved in the creation of a regional resilience network. This meeting in July could serve as the launch for a regional resilience network, should this grant prove successful.

## Staff Expertise and Qualifications of the Project Manager

Dr. Missy Stults, Derrick Miller, and other members of the project team have already designed and created two resilience hubs. During the work to fully decarbonize the Bryant Neighborhood, Community Action Network (CAN), the City of Ann Arbor, and Elevate have developed meaningful relationships with frontline residents, building on the already strong relationships CAN has from being embedded in the community. By working directly with the residents, the team co-developed a decarbonization assessment, tested it, and have begun making upgrades based on results, all thanks to the relationships with community residents.

And project partners such as CAN (Derrick Miller), Peace Neighborhood Center (Bonnie Billups), Avalon Housing (Aubrey Patino), and the Ann Arbor Housing Commission (Jennifer Hall) work directly with and for underrepresented and frontline populations daily. These stakeholders work tirelessly to provide the critical services to ensure healthy, thriving communities. And their expertise is vital to the resilience network and any activities focused on advancing equitable climate action.

Additionally, from the City of Ann Arbor Office of Emergency Management, Bryce Frohlich and Sydney Parmenter have managed the coordination of multiple severe weather events including the first activation of a Resilience Hub in the City during a disastrous ice storm that left tens of thousands of people without power earlier this year. Bryce has also conducted extensive research with residents in Ypsilanti on what a local resilience hub could look like during his time at the University of Michigan's School for Environment and Sustainability. These insights provide a strong foundation from which to build both the regional resilience network and the resilience infrastructure that will support that network.

More details about the skills and expertise of the core team members can be found in the attached resumes.

## Expenditure of Awarded Grant Funds

The City of Ann Arbor has a robust grant tracking and reporting system that includes real-time monetary tracking and the assignment of a finance liaison to assist with meeting all grant deliverables. In addition, the City has a standard practice of hosting internal kick-off meetings to ensure all the financial and data management systems (e.g., IT systems, finance support, administrative assistance) are in place at the onset of a new grant supported initiative.

In addition, the Office of Sustainability and Innovations and the Office of Emergency Management have a standing monthly meeting. Grant related tasks will be added as a standing agenda item for these meetings, helping to ensure that all project elements are coordinated and moving forward. Additionally, the OSI Director will meet biweekly with the City's Community Resilience Officer to coordinate all work related to this grant (including developing a much more detailed project workplan to track progress and adjustments).

Finally, the City will draft scope of services and memorandums of understanding to share with all project partners receiving funding under this grant. That will help ensure that all expectations are clearly articulated and that each party is aware of expectations for themselves and others in the

project. And all billing will be requested at the end of each month, thereby allowing the project manager to keep up to date records of financial performance.

## Past Performance

The City of Ann or CAN have had multiple federal grants in the past, all of which have been completed according to each unique federal grant requirements. Within the last three years, the City has had the following grants or assistance agreements that are of similar size or scope to the one requested (note: all COVID-19 related funding has been omitted):

- *Aging in Place Efficiently* – \$200,000 Partners for Places and Ann Arbor Area Community Foundation (2020 philanthropic grant to Office of Sustainability and Innovations)
- *Bryant sustainability Project* – \$500,000 Decarbonize 19 homes in the Bryant neighborhood (2022 state grant to Community Action Network and Office of Sustainability and Innovations)
- *Conservation Easement Program* – \$262,250 U.S. Department of Agriculture grant to support purchase of land for local greenbelt (2022 to City of Ann Arbor)
- *Allen Creek Berm Opening* – \$2,300,440 U.S. Department of Homeland Security grant under the hazard mitigation funding allocation to support the opening of the Allen Creek trail (2021 funding passed through the Michigan State Police, Emergency Management Division)
- *Conservation Easement Program* – \$213,750 U.S. Department of Agriculture grant to support purchase of land for local greenbelt (2021 to City of Ann Arbor)
- *Conservation Easement Program* – \$511,070 U.S. Department of Agriculture grant to support purchase of land for local greenbelt (2020 to City of Ann Arbor)
- *Allen Creek Berm Opening* – \$2,016,738 U.S. Department of Homeland Security Emergency Management Performance Grant to support the opening of the Allen Creek trail (2020)
- *Fleet Electrification* - \$270,000 from Diesel Emissions Reduction Act for purchase of electric refuse truck (2021 as part of American Lung Association application)

## Quality Assurance Project Plan (QAPP) Information

Given the nature of the proposed work, we do not believe any Quality Assurance Project Plan is required. Should EPA decide otherwise, we will immediately begin working on the QAPP.