THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

SOLID WASTE INFRASTRUCTURE FOR RECYCLING (SWIFR)

2023 GRANT APPLICATION

KEEP COLUMBUS BEAUTIFUL
KEEP AMERICA BEAUTIFUL AFFILIATE

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****Project narrative, appendices, and letters of support are available online****
www.columbus.gov/swifrapplication

I. Project summary and approach

This application is seeking $4 million from the U.S. EPA's Solid Waste Infrastructure for Recycling (SWIFR) grant program for political subdivisions. The requested funding will help construct two new Waste and Reuse Convenience Centers and ten auxiliary food waste sites within Columbus. These locations will serve as catalysts for a bold waste reduction and diversion effort in Columbus and Central Ohio. These centers and auxiliary sites will help address challenges posed by (1) significant, sustained regional growth; and (2) less than desired rates of diversion of recyclable or compostable waste.[1] The proposed projects will benefit the residents of Columbus, support a circular economy, and address climate inequities through increased waste diversion.

A. Overall project description

1. Project location

The City of Columbus (906,528 residents) is the 14th largest city in the United States, and the largest city in Ohio.[2] It is at the center of a region experiencing significant growth, with 3 million residents predicted by 2050.[3] This predicted growth will likely be accelerated by Intel Corporation's 2022 announcement that it was constructing two semiconductor factories in Central Ohio, just outside of Columbus' corporate limits. Intel has described its site as a "mega-site,"[4] and this investment will significantly impact growth, the need for additional housing, greater densification, and expanded local waste infrastructure throughout Columbus and Central Ohio.

Through its Refuse Collection Division, the Department of Public Service (DPS) provides weekly refuse collection and bulk collection services directly for all city residents. DPS coordinates collection services from Refuse Collection's primary facility at Alum Creek and two additional transfer stations – one on Morse Road, and one on Georgesville Road. This application is specifically seeking funds to construct two Waste and Reuse Convenience Centers at Refuse Collection's primary facility at 2100 Alum Creek Drive, Columbus, OH 43207, and its transfer station at 1556 Georgesville Road, Columbus, OH 43228. These two locations have sufficient space for the additional facilities (Morse Road does not), and are able to provide coverage for a significant portion of the City of Columbus and Central Ohio. Coverage will be further augmented by the proposed auxiliary food waste collection sites that are also proposed to be constructed. The precise locations of these sites, will be based upon significant community input and engagement to determine the communities where the additional sites will have the greatest positive impact.

2. Current recycling programs in Columbus

Columbus has provided a bi-weekly curbside recycling program since 2012.[5] It is currently serviced by a third-party vendor and administered by Refuse Collection. The program is available

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[1] Patrick Cooley, "How Franklin County is cutting back on the 1 million pounds of food wasted every day." *The Columbus Dispatch*, January 5, 2023, https://www.dispatch.com/story/news/environment/2023/01/05/how-columbus-is-reducing-the-1-million-pounds-a-day-of-food-waste/69673809007/.

[2] "Fastest-Growing Cities Are Still in the West and South," CB22-90, U.S. Census Bureau, May 26, 2022, https://www.census.gov/newsroom/press-releases/2022/fastest-growing-cities-population-estimates.html.

[3] The Mid-Ohio Regional Planning Commission (MORPC) estimates that Columbus and Central Ohio, will grow to 3 million residents by 2050. See "2018-2050 Population Growth Projects," MORPC, last accessed Jan. 17, 2023, https://www.morpc.org/wordpress/wp-content/uploads/2020/09/MORPC-POPULATION-PROJECTIONS.pdf

[4] "Innovating and Investing in Ohio," Intel Corporation, last accessed Jan. 17, 2023, https://www.intel.com/content/www/us/en/corporate-responsibility/intel-in-ohio.html.

[5] The proposed 2023 budget would expand this program will move recycling from bi-weekly to weekly collection. For information on this, and solid waste infrastructure expansions, please see "Weekly Residential Recycling Fact Sheet," City of Columbus, https://www.columbus.gov/WorkArea/DownloadAsset.aspx?id=2147527763.

to all households that currently receive trash collection at no additional cost to residents. Last year, a total of 34,788 tons of single-stream recycling was collected and diverted from the landfill, and this total is expected to increase 25-40% once weekly collection starts. The city began a pilot program in 2021 to identify how recycling at apartment complexes would best work in Columbus. Forty recycling dumpsters have deployed to multi-family units across the city; and Refuse Collection is servicing these dumpsters, educating residents of the apartment complexes on how to recycle, and monitoring material collected and capacity to best learn how to expand recycling to all residents within the City. Residential recycling is further augmented by drop boxes distributed throughout Columbus, which allow residents to recycle additional materials free of charge. However, these locations do not collect batteries, electronics, or food waste. Recycling electronics and batteries not only diverts items from landfills and creates new opportunities for local businesses—it also helps to prevent potential injuries and saves lives.[6]

Columbus will launch its first-ever food waste pilot program in 2023. Combined with education and community outreach, residents will be able to collect and drop off their food waste at five different initial sites: the two Waste and Reuse Convenience Centers, and three Auxiliary Food Waste sites. SWIFR funding is requested to (1) install permanent infrastructure for the two Waste and Reuse Convenience Centers, and (2) construct an additional ten Auxiliary Food Waste Sites.

3. Increasing waste diversion necessary to achieve Climate Action Plan goals.

Expanding recycling and improving food waste diversion rates are essential for achieving the ambitious goals laid out in Columbus' first Climate Action Plan (CAP). [8] The City adopted the CAP in December 2021, and it has committed to ambitious goals of a 45% reduction in emissions by 2030 and carbon neutrality by 2050. The overwhelming majority of greenhouse gas (GHG) emissions from the waste sector are directly tied to methane emissions.[9] Waste diversion is the most efficient way for reducing the amount of GHG generated by landfills, while simultaneously reducing growing landfill space demands. This application helps achieve three CAP goals for 2050: (1) 90% reduction in organic waste, resulting in 133,784 MT of GHG; (2) 95% reduction in

2019 SWACO Landfill Waste Characterizations Final Report[7]	**Tons per year**	**%**
Other compostable fiber	22,980	7.2%
Yard waste	18,239	5.7%
Edible food scraps – non-packaged	17,724	5.6%
Edible food scraps – packaged	15,363	4.8%
Corrugated cardboard	12,110	3.8%
Magazines, newspapers, office paper, mail	11,793	3.7%
Clothing	11,618	3.7%
Other recyclable paper	11,036	3.5%
Glass bottles and jars	7,277	2.3%
#1 PET bottles and jugs	6,274	2.0%
Electronics	3,053	1.0%
Total:	**137,467**	**43%**

[6] A privately contracted trash truck on a route in Columbus recently had to make an emergency stop to actually dump its load due to laptop having been improperly thrown into the garbage. See Cole Behrens, "Don't put lithium-ion batteries in trash, Rumpke warns after garbage truck fire," *The Columbus Dispatch*, Feb. 8, 2023, https://www.dispatch.com/story/news/local/2023/02/09/garbage-truck-fire-caused-by-lithium-ion-battery-in-laptop-rumpke-says/69886377007/

[7] See Appendix A – 2019 SWACO Landfill Waste Characterization Final Report

[8] The Columbus Climate Action Plan (CAP) can be downloaded directly at https://www.columbus.gov/WorkArea/DownloadAsset.aspx?id=2147522706.

[9] The city is also working towards a goal of implementing zero emission fleets, including pursuing its first-ever all-electric trash truck, electric box trucks for recycling and trash container delivery, and charging stations.

recyclable waste landfilled, resulting in 278,687 MT of GHG, and (3) 2,000 green jobs created related to circular economy.

According to the Solid Waste Authority of Central Ohio's (SWACO's) 2019 Landfill Waste Characterizations Final Report, the Columbus residential waste stream going to the landfill has up to 21% recyclable materials, 29% compostable materials, and 21% other recoverable materials. Looking deeper at the waste study, there are a host of materials that can have a market in the circular economy through organics composting. Making it easy to drop off a wide range of waste for recycling or composting is the heart of making an equitable and accessible diversion program that also supports a circular economy.

4. Concise project description

To meet the CAP's goals, Columbus must invest heavily in waste diversion. The region will ultimately require at least five Waste and Reuse Convenience Centers, and fifty auxiliary food waste collection/composting sites. Columbus has already committed funding to (1) build temporary infrastructure for two Waste and Reuse Convenience Centers, and (2) setup three auxiliary food waste collection sites. The SWIFR funding requested would (1) replace the temporary infrastructure with permanent infrastructure at the two Waste and Reuse Convenience Centers, and (2) setup an additional ten auxiliary food waste collection sites.

a. Waste and Reuse Convenience Centers

Columbus will open two Waste and Reuse Convenience Centers with temporary and limited infrastructure in 2023. These sites will initially be dumpsters and other containers for the waste, bulk, recyclable, and organic materials that are currently accepted curbside. This application requests funding for permanent site infrastructure to improve accessibility, streamline collection, and accept additional materials.

The permanent construction will be the majority of the funding request for this application. In addition to constructing the permanent infrastructure, SWIFR funding would be used to purchase other eligible items such as containers, roll-off dumpsters, compactors for cardboard, covered gaylord boxes for electronics, 95-gallon containers for food waste and organics, and two vehicles to help transport collected materials. Multi-lingual signage, lighting, and safety measures will be included to ensure that the site is safe, accessible, and welcoming to Columbus' diverse populations. The sites will be open Tuesday through Saturday, including some evening hours to make the sites more convenient. Each site will have two full-time bargaining unit staff members, and there will be one bargaining unit supervisor responsible for both sites.[10] These individuals will assist residents unloading, sorting, and ensuring that all materials are placed in correct containers. Initial materials to be accepted will include any materials already accepted curbside, as well as bulk items, batteries, electronics, and food waste. Staff also anticipates special, non-daily collection of additional materials, including hazardous waste, pumpkins, clothes, and non-perishable foods.

Alum Creek Data	Percentile
Low income	99th
Asthma	97th
Low life expectancy	99th
Housing cost	95th
Poverty	98th
Unemployment	94th
Transportation barriers	90th

The two locations selected for the convenience centers are existing facilities that Refuse Collection already uses to provide curbside trash collection service to residents in approximately 141 different census tracts, including 64 (or 45%) that are identified as disadvantaged by the Council on

[10] These positions are already committed and funded by the City of Columbus and are not part of this application.

Environmental Quality's Climate and Economic Justice Screening Tool (CEJST).[11] The Alum Creek location itself is situated in a census tract (39049008730) that is 59% Black, 24% White, 10% two or more races/ethnicities, and 6% Hispanic;,[12] and the census tract has been identified as disadvantaged by the CESJT. Alum Creek Drive provides access for the local community with sidewalks on the west side, a shared-use path on the east side, and bus stops within 500 feet.

The sites will help support the circular economy by supporting two new streams of recyclables: electronics/batteries, and food waste. This is particularly important because Central Ohio has nearly 400 recycling-reliant businesses, and these businesses receive 80% of recyclables collected in Central Ohio.[13] These sites will make it convenient for residents to recycle electronics, which will help address a stated need and interest from electronics recycling companies for more electronics to be recycled. These sites are also part of a broader food waste and organics diversion initiative throughout the city and region.[14]

b. Auxiliary food waste drop-off sites

In addition to helping fund the two Waste and Reuse Convenience Centers, Columbus also plans to use the SWIFR grant funding to construct ten auxiliary food waste drop-off sites at convenient locations throughout the city. These ten sites will be in addition to the three sites that Columbus has already committed to funding in 2023. The city is committed to focusing a majority of these sites in neighborhoods identified by the CEJST, with at least one site in an area with a significant Somali population. Columbus would also prefer sites location at parks or Community Recreation Centers that are easily accessible by walking, biking, or transit. The city hopes to be able to use these fifteen sites to capture an estimated 600 tons of food waste per year by 2030. Each auxiliary food waste site will include a three-sided enclosure, a paved pad, 95-gallon containers, and multi-lingual signage and instructions. Cost per site is approximately $10,000 to construct and purchase equipment. The lessons learned from these initial locations will help the city to expand its food waste diversion program to fifty sites citywide, using a combination or city-run sites, non-profit groups that create drop-off programs, or private companies.

The proposed investment in the Waste Convenience Centers and the Auxiliary Food Waste Drop-Off Sites will have a measurable impact towards a sustainable diversion program poised for long-term success and growth. As more materials become recyclable, additional collections and uses identified for organics, and hard to dispose of items are captured and divert from our landfill, the city moves towards its climate goals and creates healthier, cleaner, and more resilient communities.

B. Expanding collection, and diversion capacity meets the requirements in *Section I.G: Scope of Work* and *I.I: National Recycling Strategy Plan Linkage*

This project will transform Columbus' current waste diversion capacity by expanding the city's waste management infrastructure, and providing neighborhood convenience centers and auxiliary locations throughout the city. The convenience centers will provide physical infrastructure that will allow city staff and the public to reduce contamination of recyclable materials at these

[11] See Appendix B – Columbus CEJST Information.
[12] Census tract data compiled at https://censusreporter.org/profiles/14000US39049008730-census-tract-8730-franklin-oh/
[13] See Joe Lombardi, "Opinion: Weekly curbside among ways Columbus area will keep recyclables from landfill." *The Columbus Dispatch*, Feb. 14, 2023, https://www.dispatch.com/story/opinion/columns/guest/2023/02/14/joe-lombardi-columbus-area-is-keeping-recyclables-from-landfill-solid-waste-authority-central-ohio/69782285007/.
[14] In addition to these collection sites, residents will also be able to bring food waste to be composted at an existing digester at London Correctional Facility outside of Columbus, and, hopefully by 2025, at a planned public-private partnership digester being planned by the Solid Waste Authority of Central Ohio (SWACO).

locations. The project will significantly expand the city's ability to manage and divert waste materials in neighborhoods. The project will help increase recyclable materials – especially batteries and electronics – to meet the growing demand for these commodities. The project will have a significant impact on waste diversion efforts by making the locations easily accessible.

This project aligns with all five points of the National Recycling Strategy. By capturing hard to recycle items and using data to determine the types and amounts of materials being collected, new and existing markets can be identified for those commodities and improve markets for recyclables. The Waste and Reuse Convenience Centers will not only increase collection and will improve material management by having each site staffed with city employees who can sort, track, and ensure materials are managed appropriately. Staffing the convenience centers and monitoring the organics sites will reduce contamination; and it will also create an opportunity to educate residents better and continuously on proper recycling and waste disposal, which helps ensure a cleaner recycling and organics waste diversion stream citywide. The infrastructure will support policies to expand recycling, improve recycling participation, and reduce contamination citywide. Collected data will help refine the program, create metrics for future recycling efforts, and ensure progress is being made towards the city's CAP goals.

C. Goals, objectives, and milestones

Goals: Create new recycling and organics infrastructure for residents to easily, equitably, and accessibly dispose of materials that can be diverted from the landfill and fuel a local and regional circular economy. Determine what types of materials are being captured and diverted and use that to measure the success of the program and refine program elements to ensure efficiency. Develop best practices that are replicable by other communities to increase recycling and organics participation and reduce contamination.

Objectives: Achieve the 2030 and 2050 CAP goals for recycling, organics, and circular economy. Capture 750 tons of recyclable material per year at the Waste and Reuse Convenience Centers by 2030. Capture 600 tons of organic materials per year at the auxiliary food waste sites by 2030.

Milestones:

- 2023:
  - Onboard staff necessary to operate planned Waste and Reuse Convenience Centers.
  - Setup temporary infrastructure at the two Waste and Reuse Convenience Centers.
  - Setup three auxiliary food waste sites.
- 2025:
  - Complete permanent infrastructure for Waste and Reuse Convenience Centers.
  - Complete construction of ten additional auxiliary food waste sites.

D. Project schedule

In summer of 2023, the City will construct temporary infrastructure (consisting of dumpsters and containers) for two Waste and Reuse Convenience Centers, and it will also onboard five full-time staff to oversee these sites. Construction of permanent infrastructure will start in 2024, and is expected to be completed in 2025. Both centers will remain operational throughout the construction phase. Land acquisition will not be necessary, as both two sites will be on existing city-owned land. Vehicles, containers, and equipment orders will be placed in 2023.

The first three city-run food waste drop-off sites will become operational in 2023. These sites will be a pilot for the larger, citywide program that establishes an additional 10 permanent sites. The city will add five sites in 2024 and an additional five sites in 2025. The first three pilot sites will

be on existing, city-owned land at Recreation Center facilities. Construction at these sites will consist of an enclosed container area, purchase of containers, and signage. Please see Appendix C – Detailed Schedule for a more detailed schedule.

II. Environmental Justice

A. The project will provide significant benefits and help address longstanding issues in CEJST identified disadvantaged communities

Columbus is leading with equity. Impacts of climate change are being felt daily by residents throughout Columbus. As our community faces increasingly hotter days and stronger, more frequent rainstorms, our communities of color and marginalized communities are most at risk. Columbus' 2020 census population passed 900,000 residents for the first time - an increase of over 15% in the past decade. Within that growth comes significant growth in the Black, Asian, and Latino communities,[15] all of which underscores the significant urgency and need to center equity and environmental justice in how our community achieves our climate action goals. It is necessary go beyond GHG emission reductions to ensure marginalized communities have the resources, programming, and support in place to improve quality of life now and into the future.

Litter, recycling contamination, and the growing urgency of the climate crisis create the urgency and need for justice in our communities. By creating equitable and accessible Waste and Reuse Convenience Centers that serve disadvantaged communities, residents will have a new resource to help keep their neighborhoods clean while facilitating the circular economy and reducing greenhouse gasses being generated at the landfill. These centers will have an additional positive community impact by mitigating illegal dumping and litter. These are both environmental justice issues with most of the dumping taking place in disadvantaged communities and over 52% of all litter ending up in waterways.[16]

B. Community engagement plan

Columbus will use its established procedures for engaging residents and communities. Since the project impacts services offered to all residents in the entire city, Columbus will adopt a strategy that engages residents and stakeholders at all levels.

City staff will use established procedures to ensure Columbus City Council and local area commissions are engaged at a citywide level. Councilmember Emmanuel V. Remy, Chair of the Environment Committee, will ensure City Council is engaged in the planning efforts. Staff will also work with local Area Commissions to provide key input from local residents and businesses.[17] The Department of Public Service, where Refuse Collection is organizationally situated, is responsible for constructing and maintaining the physical roadway infrastructure within the public right of way; and it has significant experience managing projects involving federal funding and

[15] The Black population grew almost universally over the last decade throughout the rest of Franklin County by 21.3% to just under 300,000 residents, the data shows. The county's overall white population dropped about 0.4%, to 802,685. The county's Asian population grew 64.6% to more than 74,000. The Hispanic or Latino population grew 63.6% to 91,182. Please see Bill Bush and Mark Ferenchik, "Where did Columbus' population grow most? Suburbs, Black population increase in census data." *The Columbus Dispatch*, August 12, 2021, https://www.dispatch.com/story/news/2021/08/12/columbus-ohio-census-results-population-growth-suburbs-black-residents/8116735002/.

[16] "2020 National Litter Study: Summary Report," Keep America Beautiful, May 2021, https://kab.org/wp-content/uploads/2021/05/Litter-Study-Summary-Report-May-2021_final_05172021.pdf

[17] Columbus has more than 200 neighborhoods; and the city has empowered communities to create resident-based recommending bodies called Area Commissions to review certain projects and serve as a voice for the community. Area Commissions are elected by the local communities; and, while commission votes are only advisory, the votes are highly informative – especially for decisions ultimately presented to the Columbus City Council for a vote.

National Environmental Policy Act requirements. In addition to this project engagement experience, Refuse Collection regularly works with residents and local neighborhoods regarding issues involving weekly curbside trash pickup, bulk item collections, illegal dumping investigations, and the city's contracted residential recycling program. For this specific project, city staff intend to engage the area commissions and the residents of the communities where the infrastructure of this proposal is being planned in all steps of the process to ensure their voices, concerns, and input area heard and incorporated into the long-term recycling and organics diversion work of the city. One-on-one meetings with community leaders, group meetings with residents, and online feedback from the community will be continuous from the beginning of the planning stage through the execution of the programs.

III. Performance measure: anticipated outcomes and outputs

- Construction of two Waste and Reuse Convenience Centers that capture and divert recyclable materials, organics, and hard to dispose of items
- Purchase of two trucks to transport recyclable materials
- Selection, construction, and supplies for ten community-based food waste drop-off sites
- Purchase and implementation of data tracking technology and software to measure outcomes and performance of diversion programs

Anticipated output is to meet the Columbus CAP goals of 43,000 tons of recyclable materials and 74,700 tons of organics being diverted from the landfill by 2030.

Collection will help ensure that these programs are not only performing to the best of their ability but are meeting the needs and demands from residents and industries as our city's recycling and organics diversion programs continue to advance. Understanding the waste stream, the types of material being sent to the landfill, and that being collected at the various drop-off sites will be essential to the ongoing success of these programs. To that end, investments in software and technology to track tonnage and the performances of these programs will be made along with the use of those tools to adapt tactics and strategies to best utilize the planned infrastructure.

Data to be collected will include but not limited to the following: number of participants/users of the programs, types of materials collected (fiber, plastics, glass, metals, organics, textiles, electronics, etc.), tonnage of materials, diversion rates, contamination rates, frequency of use by residents, total emissions saved, and cost savings to residents. Qualitative data will be used to measure the success of programs. This will be captured through the use of ongoing resident surveys at the point of collection. Responses will help inform the operations and access of infrastructure to communities and ensure that they continue to be accessible and beneficial. Combined, this data will help replicate programs throughout the City of Columbus and be available to other communities to develop and execute and build upon these programs as investments in recycling and organics infrastructure continue to be made throughout Ohio, the Midwest, and the country.

IV. Programmatic capability and past performance

A. Past performance in successfully completing and managing assistance agreements and reporting requirements

Columbus has a significant and established track record of successfully completing and managing federal and state assistance agreements at the federal, state, and regional level. At the federal level, Columbus successfully completed and managed U.S. DOT's Smart City Challenge (awarded in 2016, completed in 2021).[18] At the state level, Columbus is currently managing two Ohio EPA

[18] "Smart City Challenge Final Report," Columbus, https://d2rfd3nxvhnf29.cloudfront.net/2021-06/SCC-J-Program-Final%20Report-Final-V2_0.pdf. See, also, https://smart.columbus.gov/programs/smart-city-demonstration.

grants to install EV chargers in two different city-owned garages (awarded in 2021). At the regional level, Columbus is currently managing a regional grant from SWACO to pilot city recycling at multi-family residential apartment complexes (awarded in 2020); and it successfully completed and managed a 2018 study of its recycling program (awarded 2018, completed 2019).[19]

B. Organizational experience and plan for timely and successfully achieving the objectives of the proposed project

The City of Columbus Division of Refuse Collection provides weekly, curbside trash collection to more than 350,000 Columbus households. The division also manages regular collection of curbside residential recycling and yard waste. As the number of households grows, the division's planning efforts and innovative use of technology and data will continue to drive how Refuse Collection provides trash, recycling, and yard waste pickup services as efficiently as possible. It is a significant point of pride that, more than 99 percent of the time, residents get their trash picked up by the Division of Refuse Collection on their scheduled weekly collection day. The division will take this same pride and customer service focus to the proposed waste diversion efforts proposed in this application. The division is dedicating frontline and management staff to lead this work, prioritizing waste diversion and sustainability efforts across the current work, and continuing to fund programs and infrastructure to transition the division to meet the goals of 95% organic diversion and 90% recyclable diversion by 2050.

C. Staff expertise/qualifications

Leading this project will be Tim Swauger, Division of Refuse Collection Administrator, and Aryeh Alex, Sustainability Manager and Keep Columbus Beautiful Executive Director—both staff members in the City's Department of Public Service.

Tim Swauger has been serving as the Administrator for Division of Refuse Collection for the last 6 years, leading a team of over 200 employees and managing operating and capital budgets totaling nearly $100 million. The Division is responsible for the citywide residential collection of trash, yard waste and recycling materials, and the Keep Columbus Beautiful (KCB) program and serves over 350,000 residential locations. Since joining the Division of Refuse Collection in 2016, Tim has lead various initiatives aimed at improved productivity and expanding services, including the optimization of refuse routes through GIS mapping, the addition of the Solid Waste Investigation program to city code, and the expansion of residential curbside recycling. Tim is a member of the Solid Waste Association of North America (SWANA) and collaborates with other cities to continue to improve waste services while leading the way for sustainability practices that will reduce waste, increase diversion, and create green jobs.

Aryeh Alex leads sustainability efforts in the Division of Refuse Collection where he is tasked with executing three key sections of the city's Climate Action Plan related to recycling, organics, and building a circular economy. Aryeh also oversees the Keep Columbus Beautiful program that leads in volunteer litter cleanups, community beautification projects, and sustainability education. Over the past twelve months, these projects have included an ongoing 10,000 apartment unit multi-family recycling pilot, an Ohio State University off-campus move-in/move-out recycling program, the first-ever pumpkin composting drop-off, and two neighborhood-based door-to-door recycling education campaigns that focused on increase participation and reduced contamination in recycling. Aryeh also serves as a Park Commissioner with the Columbus and Franklin County Metro Parks, a volunteer leadership position that oversees a $40 million annual park budget.

[19] Please see Appendix D – Past Performance and Experience for additional documentation of these awards.

V. Budget and expenditure of awarded grant funds – See Appendix E - Budget

VI. Project sustainability and replicability

The City of Columbus is dedicated to the success and long-term diversion of waste from landfills, and this diversion effort is a key part of the city becoming carbon-neutral by 2050. The Mayor's proposed 2023 budget includes substantial new funding dedicated to these goals, including: five staff positions for a pilot version of the Waste and Reuse Convenience Centers, funding to move the residential curbside recycling program from biweekly to weekly, and three pilot food waste drop-off sites. This funding will help develop the long-term infrastructure needed for the region's waste diversion programs. The city will continue prioritizing and expanding this work as it moves closer towards attaining its the overall waste reduction and diversion goals.

All the elements of this project will be replicable within the city, region, and in other areas across the country. The Waste and Reuse Convenience Centers will provide a model for other municipalities in Ohio to open similar stations further capturing and diverting waste from landfills. Within the city, the expansion and creation of additional food waste drop-off sites will be replicated to provide more residents with access to this service. The sites built for this project will help develop best practices to guide the expansion of new sites beyond the scope of this grant. Collected data, lessons learned, and best practices will be help sustain Columbus' efforts, and provide replicable guidance to others interested in developing similar infrastructure and programs.

Another factor supporting the sustainability of food waste diversion is the growth of community garden composting in Columbus. There are over 150 community gardens in the city and if each were generating a similar amount of compost, that would equal 36 tons of material diverted annually. These community garden sites will also play a role in generating fresh produce for the neighborhoods they serve and create a space to educate residents and the community about organic waste. These neighborhood hubs also provide a gathering place, connection to nature, and an opportunity to learn about and expand composting and food waste reduction. Many of these community gardens are in the same CEJST identified disadvantaged communities that are the focus of Columbus' Auxiliary Food Waste Sites.

VII. Effective partnerships

A. Existing partnerships at time of application

Columbus does not intend to have any paid partnerships as part of executing the programmatic elements detailed in this proposal. However, the city intends to work closely with three different government entities if SWIFR funding is awarded to support the proposed efforts through shared expertise, collaboration, and aligned programmatic goals.

1. Ohio EPA

The Ohio Environmental Protection Agency is a state agency whose goal is to protect the environment and public health by ensuring compliance with environmental laws. Those laws and related rules outline Ohio EPA's authority and what things Columbus can consider when making decisions about regulated activities. The Ohio EPA's Division of Materials and Waste Management is the lead on solid waste and diversion with the mission to protect public health and the environment by promoting alternative waste materials management options that reduce reliance on landfills and ensuring that waste management facilities are constructed and operated in compliance with applicable laws and regulations. Columbus is working with the Ohio EPA on developing the idea for conducting neighborhood waste characterization within the city. The goal is to get more detail information on the types of food and recyclable wastes and the different packaging (cans, boxes, wrapped in plastics), best by dates, etc.

2. Solid Waste Authority of Central Ohio (SWACO)

SWACO serves Franklin County and neighboring areas with solutions for solid waste. It is one of 52 solid waste districts created by the Ohio General Assembly in 1989. These districts were established with the mission of reducing reliance on landfills. Acting upon that mission, SWACO provides consumers recycling opportunities around Franklin County at our recycling drop off-locations. SWACO's mission is to manage the waste stream to enable community growth, prosperity, and environmental stewardship. Columbus has a close working relationship with SWACAO, as more than 60% of all materials going to SWACO's landfill are generated from Columbus residents. Shared goals of waste diversion, increase in recycling, and build out a food waste program extend the landfill's life and makes neighborhoods healthier and more sustainable.

3. Columbus Public Health

This City of Columbus department is charged with assuring conditions in which people can be healthy. Columbus Public Health is made up of a range of programs providing clinical, environmental, health promotion, and population-based services. One of the programs is the execution of the Local Food Action Plan, a community planning effort to create a stronger, more sustainable local food system. The Columbus & Franklin County Local Food Action Plan[20] provides common goals and actions to unify efforts in growing, processing, transporting, selling, consuming, and disposing of food. The Plan seeks to address inequalities in access to healthy food, affordable food, and local food. A key goal of this plan is to prevent food-related waste. Food inspectors are being trained to better identify and reduce food waste as well as building connections with community and non-profit led entities that rescue food throughout the region.

VIII. Incorporation of evidence-based outreach and messaging

Data will be critical to developing, deploying, and updating communications, outreach, and messaging throughout the project and beyond. Ensuring all aspects of this program are rooted in evidence-based research will help increase reach, success, and sustainability of the long-term waste diversion goals of the City. Additionally, as real-time data is collected, it will influence and adapt programmatic elements to help increase efficiency and productivity of the programs.

IX. Leveraging

The City of Columbus intends to leverage city resources to pilot aspects of this program and ensure the sustainability of this work. In the Mayor's 2023 proposed operating budget, funding for the following is included additional full-time city employees to staff two Waste and Reuse Convenience Centers, construction and servicing of three food waste drop-off pilot sites for residents, and a resident education campaign to increase waste diversion and recycling participation and reduce contamination. This award will help Columbus leverage the local and federal funds to fund these programs and build a sustainable operation that works towards achieving the city's Climate Action Plan goals.

X. Attachments

- Appendix A – 2019 SWACO Landfill Waste Characterization Final Report
- Appendix B – Columbus CEJST Information
- Appendix C – Detailed Schedule
- Appendix D – Past Performance and Experience
- Appendix E – Budget
- Letters of Support

[20] Available at: https://www.columbus.gov/publichealth/programs/Local-Food-Action-Plan/