

Narrative

A. Professional Qualifications

Lydia McMullen-Laird, Samuel McMullen, Dr. Jackie Ebner, Anna Oana, and Bridgette Pollaski are considered key to the successful completion of this project.

ZeroWaste.Org

Live Zero Waste Inc. (DBA ZeroWaste.Org), a Michigan Nonprofit Corporation registered at 820 Granger Ave. Granger Ave., Ann Arbor, MI, 48104

ZeroWaste.Org was founded in 2017 with the mission of reducing waste as much as possible, as quickly as possible. It specializes in high-engagement environmental outreach and education programs with a focus on user experience, metrics, and reporting, and effective long-term behavior change.

ZeroWaste.Org has deep partnerships in Ann Arbor that provide substantial marketing and outreach leverage. It has technical expertise in web design, survey implementation, program gamification, and technical marketing and metrics. These areas of expertise result in highly interactive programs that have been shown to create long-term behavioral changes for program participants due to a high level of personalization and strong feelings of success and community among participants, along with a notable absence of guilt or shame.

ZeroWaste.Org has built extensive relationships, internal processes, and capabilities for running swaps in Ann Arbor through a previous two-year contract with the City of Ann Arbor that will significantly increase the speed and quality of program implementation.

Lydia McMullen-Laird, Deputy Director

New York City, NY, & Ann Arbor, MI

Lydia McMullen-Laird brings a unique combination of environmental expertise, communications excellence, and operational leadership to the swap program project management role. As Deputy Director of ZeroWaste.Org since 2015, Lydia has successfully managed complex educational programs focused on zero waste, food reduction, and circular economy initiatives while overseeing organizational operations, volunteer coordination, and strategic communications. Her proven ability to translate environmental concepts into engaging public programs, combined with her extensive experience managing multi-stakeholder projects, positions her to expertly coordinate all aspects of the swap program from initial planning through execution and impact assessment.

Lydia's background as a climate reporter for WNYC and fact-checker for The New York Times demonstrates her analytical rigor and ability to work under tight deadlines—critical skills for managing the data collection, reporting, and storytelling components of the swap program. Her teaching experience as Assistant Professor of Journalism at Columbia University showcases her talent for curriculum development and stakeholder engagement, which will be invaluable in creating educational components and training materials for swap events. Having lived trash-free since 2015, Lydia brings authentic personal commitment to zero waste principles alongside her professional expertise in program management, ensuring the swap program will be both operationally excellent and true to its environmental mission. Her multilingual abilities and international experience further enhance her capacity to engage diverse community participants and stakeholders.

Samuel McMullen, Executive Director

New York City, NY, & Ann Arbor, MI

Samuel McMullen is a cofounder of ZeroWaste.Org and brings extensive tech, marketing, and behavior design experience to this project.

In his time at ZeroWaste.Org, Samuel has helped shape highly engaging environmental campaigns for the Ann Arbor community. He has deep experience with implementing behavior change initiatives that are delightful to participate in and provide a wealth of data to help shape future iterations of programs. This experience, and the network he has built along the way, will advance the reach and quality of the City of Ann Arbor's swap day program. It will also ensure that the City is able to meet its goals of strong data collection and impact storytelling without sacrificing participant experience.

During his time at the University of Michigan, Samuel founded the University's first environmental professional fraternity, the second chapter of Epsilon Eta, which now has chapters at 19 schools. Samuel earned a B.A. in Philosophy and minored in Entrepreneurship and won multiple awards for zero waste projects in the entrepreneurship program.

Joe McGuinness, Swap Coordinator

Ann Arbor, MI

Joe McGuinness brings deep operational expertise and proven leadership in waste management and material recovery to the swap program coordinator role. During his tenure at Recycle Ann Arbor, Joe successfully managed complex material flows processing over 20,000 tons annually while leading teams of 14 staff across union and non-union positions. His operational excellence is demonstrated through outperforming budget projections by \$165k against \$2.4M in annual revenue and implementing innovative programs like tire recycling that improved recovery on over 2,500 tires yearly. Joe's hands-on approach to safety program development, staff training, and equipment management—including his certification as a heavy equipment operator—ensures the swap program will operate safely and efficiently while maximizing material recovery outcomes.

Currently serving as a Seasonal Environmental Assistant with Washtenaw County's Materials Management Division, Joe processes household hazardous waste and coordinates remote cleanup events, giving him direct experience in community-facing environmental programs. His background in logistics and transportation, combined with his commitment to zero waste principles, positions him to optimize the operational aspects of swap events while maintaining the participant experience. Joe's proven ability to build comprehensive material management plans and develop staff through structured training programs will ensure the swap coordinator role delivers both operational excellence and meaningful environmental impact for the Ann Arbor community.

Subcontractor: Resource Recycling Systems (RRS)

Resource Recycling Systems, Inc.

416 Longshore Drive

Ann Arbor, MI 48105

RRS operates as a privately held S-Corporation and is licensed to operate in the State of Michigan. RRS has been dedicated to advancing sustainable material systems since 1986, when recycling was in its infancy and landfilling was

the prevailing norm. Founded by the pioneers of one of the first curbside recycling programs in the United States, right here in Ann Arbor, RRS has its roots firmly in municipal recycling. Over the decades, we've helped transform the field, growing beyond collection and processing to develop integrated solutions that drive material recovery, economic development, and climate action.

As the industry evolved, so did RRS. Today, we are nationally recognized for our work designing and implementing circular economy strategies that reduce waste, retain material value, and support local businesses. Our portfolio includes policy innovation, market development, data analysis and research, stakeholder facilitation, and public-private partnership support, all tailored to help communities move from linear consumption to regenerative systems.

Dr. Jackie Ebner - LCA and Reuse Expert

Ann Arbor, MI

Jackie Ebner, Ph.D., is a certified LCA (Life Cycle Assessment) practitioner with extensive expertise in sustainability and lifecycle assessment. Jackie has a multifaceted background in business, engineering, and social science.

Prior to joining RRS, Jackie was founder and principal at Elucidativ LLC, where she conducted environmental impact analysis to guide businesses, municipalities, and policymakers toward meaningful progress towards sustainability goals. Dr. Ebner also has over eight years of experience teaching sustainability at Bard College and the Rochester Institute of Technology. A strategic thinker and technical expert, she combines her deep understanding of environmental impact analysis with hands-on project management and stakeholder engagement. Her academic foundation includes a Ph.D. in Sustainability from Rochester Institute of Technology, an MBA from the University of Rochester, and a B.S. in Mechanical Engineering from SUNY Buffalo.

Anna Oana - LCA Analyst

Ann Arbor, MI

Anna is an Analyst at RRS, based in Ann Arbor, Michigan, with a strong foundation in data analysis, environmental research, and sustainable materials management.

Her background includes leading data-driven research initiatives, supporting LCAs, and contributing to GHG and environmental impact modeling efforts. Anna has contributed to multiple ISO-compliant LCAs for packaging and product systems, leveraging tools and modeling techniques to assess material impacts across various end-of-life scenarios. Her work includes interpreting and organizing large data sets, refining LCA assumptions, and developing visual deliverables to communicate findings to stakeholders. In addition to her LCA expertise, Anna has experience leading lab-based research to evaluate compostable packaging degradation, conducting qualitative and quantitative research for food waste and recycling system studies, and applying EPA tools and custom modeling to support emissions analysis.

Bridgette Pollaski - Analyst

Ann Arbor, MI

Bridgette Pollaski is an Analyst with RRS based in Ann Arbor, Michigan, where she supports public- and private-sector clients through research, community engagement, and strategic communications.

With a background in circular economy and urban studies from the University of Michigan and a passion for social and environmental sustainability, she specializes in aligning technical content with public-facing storytelling and

stakeholder needs. Bridgette brings a strong track record in developing surveys, outreach strategies, visual media, and facilitation tools that enhance participation and make circular economy concepts accessible and actionable. Her project experience includes work across municipal, state, and nonprofit clients, supporting zero waste planning, policy development, and program implementation. She has contributed to initiatives involving statewide recycling campaigns, campus waste audits, regional planning studies, and broad data analysis.

B. Past Involvement with Similar Projects

ZeroWaste.Org

Task 1

Over the past two years, we collaborated with OSI on planning and executing 12 Neighborhood Swap days for the first swap in December of 2023. We pitched a centralized Holiday Swap Day, drawing inspiration from previous swaps we had participated in, both in NYC and Ann Arbor. This new model resulted in an 82% increase in donated items compared to previous swaps.

We implemented this same centralized model at the three more swaps in 2024 (Angell Elementary, Pioneer High School, and Holiday Swap Day #2), before pivoting to smaller, more frequent swap days to align with OSI's goals to make swaps a more accessible option for reuse.

Over the course of implementing these 12 swaps (as well as several that we organized outside of the OSI contract), we have built expertise in logistics management (including scheduling pickups of excess materials at the end of swaps), volunteer coordination, and data collection.

We also have relevant experience coordinating large events that will be useful for planning swap festivals. We have organized three Trash Talk Tours in 2022, 2023, and 2024 (which include a Zero Waste Fall Festival, a bike tour, and multiple other components). We organized a Zero Waste Extravaganza at Ann Arbor Summer Fest in 2022, and a Zero Waste Craft Fair at the A²ZERO UM Zero Waste in 2025. These experiences have equipped us to handle large events with many stakeholders, complicated logistics, and detail-oriented planning.

Task 2

ZeroWaste.Org is built from the ground up to support behavior change. Virtually every project we participate in involves a strong environmental education component. We bring a decade of experience running behavior change programs primarily in Ann Arbor, but also in London, New York, Seattle, Ypsilanti, and virtually in 35 countries across the globe. For this project in particular, we have recent and transferable experience and internal processes from the Fast Track to Reducing Food Waste and the Zero Waste Challenge Program.

The Fast Track to Reducing Food Waste, developed with and for OSI, was a gamified food waste reduction program that involved points, teams, leaderboards, and robust qualitative and quantitative data collection and analysis. The project equipped us to provide marketing automations to support behavior change, and robust dashboarding, reporting, and data collection platforms to give the City real-time insight into the success of the swap day program. We anticipate employing this experience heavily in tasks 2 and 5 to provide residents with an engaging experience of the City's textile waste reduction efforts, while providing unmatched visibility into behavior change for City staff.

The Zero Waste Challenge Program builds on a decade of experience and leverages public commitment, peer-to-peer engagement, and bridges physical and digital events with systems like scavenger hunts, quizzes, and email campaigns. These programs have been studied by researchers at the University College London and were shown to create durable

behavior change over the course of the 2-year study period. We will use this experience, processes, and techniques to make the Swap Day program an effective change agent in Ann Arbor with data and reporting that OSI can share to show tangible progress against its goals.

Task 3

Under our previous contract with OSI, we developed and executed several hybrid events consisting of skill-building workshops taking place at clothing swaps.

- A²ZERO UM Zero Waste Week Clothing Swap and Mending Event 2024

We collaborated with a local sewing teacher as well as volunteer sewing assistants to provide mending instruction and learning in conjunction with a clothing swap. Attendees who did not have clothing available to mend chose a piece of clothing from the swap to alter, decorate, or fix. There were educational materials and examples available of different mending techniques to provide maximum learning.

- A²ZERO UM Zero Waste Week Crafting Fair and Clothing Swap 2025

At our second hybrid event, we repeated the same model as the first Clothing Swap and Mending event and added other zero waste craft activities, such as making a body scrub using coffee grounds, creating a mini herb garden, and more.

- A²ZERO Week Reusable Veggie Bag Sewing Workshops (4)

We have organized four sewing events as part of A²ZERO week to teach community members how to turn scrap fabric into bags that can reduce textile waste while also creating a reusable alternative to plastic produce bags. These workshops could be integrated into the monthly swap events.

- Making shopping bags from T-shirts (2)

We have organized workshops at the Ann Arbor Summer Festival and at the Trash Talk Tour to teach community members how to turn t-shirts into reusable shopping bags. These bags reduce textile waste while also creating a reusable alternative to plastic produce bags. These workshops could be integrated into the monthly swap events.

Task 4

Marketing

We have experience marketing swap events through our previous contract with OSI from 2023 to 2025. We developed swap marketing campaigns which included email marketing, social media marketing, on-the-ground outreach, and press, which generated hundreds of A²ZERO brand impressions and education around the circular economy. As a result of these marketing campaigns, over 2000 people attended 12 swaps during the contract period. We also provide flexibility and agility depending on client needs, and were able to pivot to a hyper-local outreach strategy for the A²ZERO Ward Party swaps and a targeted population outreach strategy for the Pride Swap.

We have experience in Community-Based Social Marketing through campaigns with Move Out Ann Arbor and over a decade of email marketing expertise through Zero Waste programming in 35 countries.

We also provide extensive press expertise. Our Deputy Director has a degree in journalism and has worked for both local and national outlets for the past ten years. We created press releases for previous swap programs and were able to get multiple swaps covered by the local media, further adding to community knowledge and understanding around A²ZERO, the circular economy, and textile waste reduction.

Swap Outreach Database

Over the past two years, we researched and developed a database specifically for the Swap Day program of over 300 contacts in categories including social service organizations, houses of worship, environmental groups, neighborhood associations, public schools, press, and LGBTQ+ organizations.

Task 5

RRS

Hylloh

Product Emission Factors Development DSNY's Reuse Impact Calculator (2022)

RRS led the development of the NYC Department of Sanitation's Reuse Impact Calculator by quantifying environmental impacts across 10+ textile product categories. This work involved in-depth life cycle assessment (LCA) methodology reviews, data refinement, and emissions factor development. The RRS team conducted advanced research to validate and enhance emissions modeling, identifying methodological gaps and recommending improvements. The outcome was a comprehensive emissions calculator designed to quantify the environmental impacts of reusing textile garments.

Washtenaw County

Resilient Washtenaw Plan – GHG Inventory, Public Engagement, Goals, Strategies, Actions, and Recommendations

Developed Michigan's first county climate action plan using a theme of equity and resilience. RRS acted as the prime contractor with subject matter expert consultants to support specific plan elements. The Resilient Washtenaw Plan is 141 pages and includes an Executive Summary, and separate sections discussing Climate Change in Washtenaw County, Public Engagement, GHG Inventory and Current Conditions, Plan Framework, Vulnerability Assessment, and Actions. The plan's 51 actions are organized around eight Strategy areas, including Implementation, Energy Transition, Housing, Mobility and Access, Health, Preserving Working Lands and Natural Areas, Infrastructure, and Circular Economy. A wedge analysis shows the combined benefits of these actions and a strategy for the County to reach carbon neutrality in County Operations and County-wide. Hosted 17 public events, including targeted listening sessions for each of the nine county commissioner districts (175 registrants for initial outreach meetings) and one focused solely on the agriculture community. Used the CoUrbanize platform to host the Resilient Washtenaw engagement website, averaging 54 unique visitors per week over the 10-month planning process. A new climate 101 video was created to share the most recent climate science with the community. The Resilient Washtenaw site gathered 228 pieces of community feedback and responses. Met monthly with the Washtenaw Environmental Council and internal staff Steering committee. Direct work with staff identified 445 actions recommended for review and inclusion in the plan. The Draft Resilient Washtenaw plan was presented and reviewed by the Washtenaw Environmental Council and Steering Committee. The Final Washtenaw County Board of Commissioners approved the plan unanimously on December 7, 2022. Developed a set of Recommendations (27 pages) for Staffing, Reporting, Funding and Financing, Governance, and Partnerships.

The City and County of Denver

Reuse Economy Study

The Denver Reuse Economy Study, conducted by Resource Recycling Systems (RRS) and commissioned by Denver's Office of Climate Action, Sustainability, and Resiliency (CASR), aimed to establish a foundational understanding of the reuse economy's contributions to the local economy and its environmental benefits. This comprehensive study focused on brick-and-mortar businesses involved in secondhand retail, repair services, and rentals, excluding automotive and

home repair sectors, as well as informal or online marketplaces. Over 400 reuse businesses were identified, representing nearly 2% of all Denver businesses and approximately 13% of retail establishments. The study highlighted the reuse economy's positive impacts, including a \$540 million annual economic output, 3,421 jobs, and significant greenhouse gas emission reductions—equivalent to removing nearly 50,000 gasoline-powered vehicles from the road annually.

In addition to quantifying the economic and environmental impacts, the study explored spatial patterns and social dynamics within the sector. Most reuse businesses were locally owned, reinforcing community ties and enhancing neighborhood connectivity. However, challenges such as high labor costs and a lack of skilled workforce emerged as barriers to growth. Recommendations to foster equitable sector growth include implementing sustainable purchasing policies, developing reuse depots, offering business grants, piloting repair voucher programs, and creating an online reuse directory. These initiatives are designed to support Denver's sustainability and economic development goals while addressing barriers and leveraging community engagement.

Fashion For Good

Sorting for Circularity USA (2023-2024)

RRS conducted comprehensive textile waste analyses across multiple U.S. regions, leveraging near-infrared (NIR) technology to assess post-consumer textiles for fiber composition and recyclability. This project combined data-driven material analysis with stakeholder engagement to drive investment in textile-to-textile recycling infrastructure. As part of this effort, the RRS project team conducted a nationwide consumer survey to assess attitudes and behaviors around textile disposal and recycling, mapped U.S. textile flows, assessed infrastructure gaps, and identified opportunities to scale circular solutions. Collaborating with brands, recyclers, and policymakers, we developed actionable recommendations to improve textile recovery and integrate circularity into global supply chains. The findings were published in a public-facing report with the intention of providing critical data to guide investment in textile-to-textile recycling infrastructure, inform Extended Producer Responsibility (EPR) policy discussions, and support industry alignment on material sorting and recovery strategies.

References

Kiwanis Thrift Sale

100 N Staebler Rd, Suite C, Ann Arbor, MI 48103

734-645-9822

Contact: Karen Jacobson, Club Director

A²ZERO Neighborhood Swap Days

Kiwanis Thrift Sale has collaborated with us on the following A²ZERO Neighborhood Swap Days: Angell Elementary Swap (April 2024), Pioneer High School Swap Day (June 2024), Holiday Swap (December 2024), and A²ZERO Ward Party Swaps. We coordinated with Kiwanis on pickups of leftover material, and Club Director Karen Jacobson collaborated with us on the ground for the A²ZERO Ward Party Swaps and can speak to our ability to execute swaps and manage volunteers. We have also collaborated closely with Karen on the Trash Talk Tour, so she can speak to our organizational, managerial, and problem-solving skills.

University of Michigan Office of Campus Sustainability

109 E Madison St

Ann Arbor, MI 48104

734-945-0404

Contact: Nicole Berg, Program Manager

A²ZERO UM Zero Waste Week Craft Fair and Clothing Swap

We worked with the UM Office of Campus Sustainability to host a Craft Fair and Clothing Swap in Shapiro Library. Nicole can speak to our ability to coordinate multiple stakeholders, working with student volunteers, handling logistics, and day-of execution.

University of Michigan Department of Scandinavian Studies

812 E. Washington St.

Ann Arbor, MI 48109-1275

Contact: Johanna Eriksson, Director of the Scandinavian Studies Program

A²ZERO UM Zero Waste Week Clothing Swaps and Skill Building Workshops

Johanna has collaborated with us for two years on hybrid clothing swap and mending events as part of the A²ZERO UM Zero Waste Week. She can speak to our ability to plan, market, and execute these events as well as the successful integration of the clothing swaps with skill-building workshops like mending.

Maker Works

3765 Plaza Drive

Ann Arbor, MI, 48108

Contact: Josh Williams, Executive Director

Trash Talk Tour Mending Event

Josh worked with us on a mending event at last year's Trash Talk Tour and can speak to our ability to organize mending events in coordination with other events. This would be applicable to organizing Skill Building Workshops.

Trash Talk Tour

Ann Arbor

Contact: Pat Stejskal, Program Manager

Trash Talk Tour

Pat has worked with us on organizing the Trash Talk Tour for the past three years, and can speak to our ability to organize and coordinate large-scale events with many moving parts. This would be applicable to organizing Swap Festivals.

C. Work Plan

Task 1: Swap Event Logistics and Labor Deliverables

Overview

To build on our previous work with OSI in this area, we have increased our capacity in multiple areas outlined in the components section below. Our goal is to support OSI in the logistics and labor of swap days in order to work with OSI to create joyful events that build community and reduce textile waste. We will also focus on elevating the A²ZERO brand and taking on the labor and logistics to free up OSI staff to engage with participants during swap days.

Components

Local Coordinator

We now have a local program coordinator who will be in charge of programs such as swaps. He is based solely in Ann Arbor to handle logistics, labor, set up, take down, and storage (if needed). This will allow us more flexibility and availability to support the more frequent swap schedule.

If that local coordinator becomes unavailable, Lyida, Samuel, or another staff member from ZeroWaste.Org will provide coverage at events.

Storage

We will rent a storage unit as part of this contract to store swap materials between events. The swap coordinator will be responsible for pick up and drop off from the storage unit in their own vehicle.

Donation Database

We have created a database of dozens of local social service organizations and thrift stores with details including what material they accept, whether they pick up, drop off, details, etc. This will allow us more flexibility in the event that Kiwanis is unavailable, or to call on organizations that are most in line with the goals of specific swap days.

Data Collection

We are bringing in RRS as a subcontractor to advise on data processing and ensure that we are able to effectively measure the climate impacts of the A²ZERO Swap Day program in a way that aligns with OSI's overall climate goals.

Timeline

Phase 1: Program Goals

- **Timeline:** Immediately - Month 1
 - **Activity:** Meet with OSI to discuss program goals and alignment, [ZeroWaste.Org](https://zerowaste.org) roles and responsibilities, and any updates on the program transitioning into this contract period

Phase 2: Implementation of Swap 1, Planning, Reporting

- **Timeline:** Month 1 - 2
 - **Activity:** Plan logistics and labor for the first swap
 - **Activity:** Discuss the swap schedule for all swaps to support OSI in creating a comprehensive swap calendar
 - **Activity:** Create a reporting template under OSI's guidance to ensure [ZeroWaste.Org](https://zerowaste.org) is capturing and reporting on all information needed for OSI's impact and program reporting

Phase 3: Swap Roll Out

- **Timeline:** Month 2-19
 - **Activity:** Continue iterating and adjusting processes for executing swaps in a way that meets OSI needs
 - **Activity:** Report the impact of individual swap days as well as the cumulative impacts

Task 2: Educational Programming

Overview

To transform swap participation into durable, long-term behavior change, we propose developing a community-focused education campaign for residents, centered on monthly themes related to textile consumption and reuse. At each monthly swap, residents will have a chance to learn about a new facet of the circular textile economy, engage with other swappers, and take action that supports their learning.

The swaps will build a community feeling supported by the workshops, educational displays, games, and trivia connected to monthly themes. The aim will be to create an atmosphere that is warm, organized, and engaging to make the swaps an event people look forward to returning to. By integrating the check-in process and impact calculator we'd design alongside OSI, participants would come to an understanding of the impact of swapping and textile waste reduction while ensuring seamless data collection for reporting.

Components

Community Building & Fun

To make swaps fun and connecting events, check-in would include name tags with ice breaker questions, a monthly swapper spotlight to highlight a community member, and a swap bingo card including actions that drive desired behavior like:

- bring a friend
- do the workshop
- donate clothing
- take clothing home
- get at least one trivia question right on the engagement board

Completed bingo cards could be connected to prize entries if that is of interest.

Social Proofing

A core component of Community-Based Social Marketing is social proofing, and we would incorporate this by creating a public pledge board that can be displayed at monthly swaps. This will serve three functions: showing community members that others are also committed to textile waste reduction, a powerful component of behavior change; giving participants a chance to think about concrete commitments they can make in textile waste reduction; and providing OSI with data on which educational materials around behavior change are effective and result in public commitments. Furthermore, according to research in "A Meta-Analysis and Critical Review of Commitment-Making Strategies," Lakorst et al., making commitments of this kind leads to behavior change in both the short- and long term.

A digital version of the pledge board can also be available through social media if this is in line with the OSI digital strategy.

Displays

A monthly display sharing an important demention of textile waste and impact will be up at swap events and will offer participants information and data on what the issue is (for example how much clothing gets thrown out that could be easily repaired and what the environmental impact is), as well as concrete strategies to implement in their own lives.

Each display would have a trivia question to deepen learning and increase engagement both in person and online.

Monthly Theme and Actions

Each theme will be discussed with OSI in advance to ensure alignment with the OSI's CE strategy. Themes could include clothing repair, buying secondhand, upcycling, maintaining clothes for longevity, etc., and will be tied to a specific behavior change action.

Actions could include visiting a thrift store, repairing an article of clothing, buying nothing new, attending or hosting a swap, etc. Participants will have the option of logging their actions in the personal impact calculator to better understand their environmental wins.

This impact calculator will aggregate over time, reinforcing and incentivizing long-term adoption of the behaviors presented at the monthly swaps. This will also give A²ZERO the opportunity to see the combined impact of textile waste reduction actions both during the monthly swap and as a result of the educational information participants learn at the monthly swaps.

Digital Storytelling

We will leverage social media to highlight instructional components of the swap days (such as repair methods), and to highlight wins from participants (such as something fun they found at the swap). This will serve as further social proof of the behavior change outlined by the City's RFP.

Timeline

Phase 1: Program Design

- **Timeline:** Immediately - Month 1
 - **Activity:** Choose target behaviors and themes
 - **Activity:** Finalize themes with OSI to ensure alignment with the CE strategy

Phase 2: Tech Implementation

- **Timeline:** Month 2-3
 - **Activity:** Build personal impact tracker and trivia templates.

Phase 3: Swap Roll Out

- **Timeline:** Month 2-4
 - **Activity:** Design and implement a Commitment Board for monthly swaps

- **Activity:** Launch monthly themed swap events with educational displays and incentives

Phase 4: Ongoing Content Creation

- **Timeline:** Month 4 and onwards
 - **Activity:** Use social media to highlight participant wins and educational content from swaps
 - **Activity:** Build monthly displays, trivia questions, and actions.

Task 3: Skill Building Workshops

Overview

Our previous experience organizing skill-building workshops for textile waste reduction makes us a good fit for task three. We have local contact with professionals who are able to do mending, upcycling, dying, and other skill-building workshops.

Components

Workshops

We will focus on workshops that increase the value of clothing and normalize reuse practices and also establish and measure long term behavior change. These workshops would be discussed and adapted to ensure they meet OSI's needs for the task and fit into A²ZERO's broader community engagement textile waste reduction strategy.

Here are some examples of the types of workshops that we might suggest:

- **Clothing Repair Workshop:** Bring in a piece of clothing to repair, or choose something from the swap and practice basic sewing techniques. Learn how to patch holes, sew buttons, hem pants & more!
- **Furoshiki:** Learn Japanese fabric-wrapping techniques using upcycled textiles.
- **Denim Rescue:** Use patches, embroidery, creative stitching, and bedazzling to extend the life of jeans and jackets or create a new look!
- **Refresh Your Wardrobe:** Learn to dye your clothing with flowers, leaves, and kitchen scraps (like onion peels!) to give your used clothes a new look
- **Screen Printing Workshop:** Repurposing T-shirts and cloth bags and printing A²ZERO merch ahead of A²ZERO Week 2026
- **Shoe Repair:** Get ready for fall, learning basic repair skills for your shoes and boots.

Social Media Videos

If this falls into the City's desired deliverables, ZeroWaste.Org can shoot and create video content of the skill-building workshops to further promote circular economy behavior change and A²ZERO brand impressions on social media.

Timeline

Phase 1: Pitch Skill Building Workshops to OSI

- **Timeline:** Immediately upon contract execution
- **Activities:**
 - [ZeroWaste.Org](#) will work with OSI to understand the City's needs and desires around Skill Building Workshops and pitch 12 skill building workshops for year 1

Phase 2: Research and Recruit Workshop Vendors

- **Timeline:** Months 1-2
- **Activities:**
 - Contact vendors we are familiar with to schedule them for workshops
 - Research and do outreach to vendors for new workshops

Phase 3: Implementation

- **Timeline:** Month 1-19
- **Activities:**
 - Coordinate logistics with monthly vendors
 - Coordinate supplies needed for skill-building workshops
 - Measure impact
 - Create social media assets from skill-building workshops as desired by OSI

Phase 4: Refine Workshop Model

- **Timeline:** Months 6-7
- **Activities:**
 - Review workshops for the first 6 months with OSI
 - Implement updates and changes to skill-building workshops as needed

Task 4: Outreach and Marketing

Overview

We have established robust outreach networks and processes that will significantly speed up our ability to recruit swap participants for a variety of events.

There are significant outreach synergies with Tasks 2 and 3. Building teams and social media commitments into the educational program will incentivize residents to share their activities with friends and neighbors and increase the A²ZERO presence in the community. The skill-building workshops offer a direct connection to an artisan or organization that we can collaboratively post with to reach their audience. We've seen this type of partnership drive significant additional reach in our work with the Move Out Coalition.

From a technical perspective, [ZeroWaste.Org](#) has capabilities that will allow the City to attribute traffic and attendance to particular outreach activities, which makes it much easier to identify successful channels and double down on them in the future, building a progressively more effective strategy as time goes by. This approach to attribution and data collection allows for comprehensive reach and marketing funnel reports to better understand the efficacy of outreach

efforts. It also allows for experimenting with new outreach strategies depending on OSI needs, such as the hyper-local outreach campaign for the ward party swaps.

In addition to attribution, it is critical that residents who sign up to attend a swap get timely reminders and have the chance to add the swap to their calendar, and that they receive follow-up communication to keep them engaged in A²ZERO's circular economy efforts. We have deep experience with Luma, a tool we introduced during the A²ZERO week swaps that accomplishes RSVP tracking, add to calendar, and sends text and email reminders with ease. Using Luma has the added benefit that people who join City swaps can be notified about future events on the platform. We will work with OSI to ensure follow-up communications to participants are timely and elevate the A²ZERO brand.

Components

Comprehensive Outreach for Every Swap Event

- Identify relevant community groups and use the outreach database and research to drive attendance from OSI priority audiences.
- Secure community newsletter, bulletin board, and events calendar placements for OSI swaps.
- Engage ZeroWaste.Org network to support outreach and attendance as directed by OSI.

Leverage Partner Audiences

- Collaborate with instructors and local partners to extend the reach of the swap day initiative.
- Create and share instructor highlight posts collaboratively with skill-building workshop instructors.
- Highlight the Monthly Action prize organization through collaborative posts.

Marketing Materials

- Develop templates for frequent content, such as "Swap Find" posts that highlight unique items at the swaps.
- Collaborate with OSI to create social media templates for swap events.
- Build swap recap and impact report templates for every swap.
- Develop and work with OSI to deliver prep and follow-up communications that meet the City's needs.

Social Media Engagement

- Encourage swap participants to share and tag A²ZERO social media accounts to widen the initiative's reach, as well as the general A²ZERO social media account reach.
- Consistently engage on Instagram to build a long-term presence for the swap program.

Attendance & RSVPs:

- Use the City's existing Luma calendar to track RSVPs and maintain a centralized attendance list.

Database Setup and Maintenance:

- Maintain and add to the existing outreach database for swap day events.

Data & Reporting

- Engagement metrics, including reach and attendance, with detailed reporting of attribution and channel breakdown to inform future outreach.

- Quarterly review meetings to assess performance and design improvements.

Timeline

Phase 1: Needs Assessment & Planning

- **Timeline:** Immediately
 - **Activities:**
 - Conduct meetings with OSI to gather requirements.
 - Analyze current content and process gaps.
 - Develop a comprehensive needs assessment report and align with OSI on priority items.

Phase 2: Content & Outreach Template Development

- **Timeline:** Month 2
 - **Activities:**
 - Build and integrate technical infrastructure
 - Develop copywriting and design templates for outreach materials for monthly swaps

Phase 3: Continuous Improvement and Monitoring

- **Timeline:** Ongoing
 - **Activities:**
 - Implement a feedback loop for continuous content optimization
 - Monitor performance metrics and adjust strategies as needed
 - Conduct quarterly reviews to assess progress and impact

Task 5: Measuring Impact and Quantifying Key Climate Benefits

Overview

ZeroWaste.Org and RRS will deliver an impact calculator (for use in this task as well as Task 2) and a methodology for the data collection at the various swap day events to enable OSI to report emissions savings and other key sustainability data. That data will be further used for storytelling and to create graphics for use on A²ZERO web and social platforms.

RRS will deliver emission factors to be incorporated into the calculator, customized to suit the City of Ann Arbor's needs. RRS will also advise the City of Ann Arbor on how to integrate the emission factors into an environmental impact calculator tool.

The methodology will leverage an existing RRS model. This model generates an estimate for the carbon emissions (kg CO₂ eq) of reusing garments in place of purchasing a new garment. The model provides estimates for 18 garment categories:

Blazers, Blouses, Bras, Dresses, Gloves, Hats, Leggings, Nightgowns & Robes, Overalls, Pajamas, Trousers/Shorts, Scarves, Skirts, Socks, Suits, Sweaters & Sweatshirts, Tights & Hosiery, and Underwear.

Additionally, the model has a general category representing a mix of garments. The model can be customized based on Ann Arbor reuse data collected by ZeroWaste.org, or provided by the City of Ann Arbor, including representative

garment mass and fabric composition for each category if available.

RRS will also advise on how to integrate the emission factors into a user tool that may include the ability to adjust for garment condition or the likelihood that the swapped garment displaces a new garment.

A consequential LCA modeling approach is used to calculate environmental impact, where the consequence of apparel reuse is the avoided burden of manufacturing an alternative new apparel for the lifespan of the reused item, as well as changes in the burden of disposal at the end of use for donated items.

The methodology to develop the emission factors will be consistent with best practices for performing a lifecycle assessment, including those defined in the ISO standards 14040 (2006a) and ISO 14044 (2006b) for conducting LCA and industry standard background datasets such as Ecoinvent and USLCI. The methodology will be documented in a style consistent with the ISO standards, but an ISO compliant report for third-party communication (which requires peer review) or a panel review for comparative assertion (which requires a panel review) is not included in the scope.

Components

Refining RRS Model

RRS will refine the model to meet the needs of the City of Ann Arbor. This could include consolidating garment categories, including additional environmental impact metrics in addition to carbon emissions, such as water consumption, or refining assumptions. Any significant changes to the modeling and assumptions will require a change order.

Calculator Building

ZeroWaste.Org will translate the model into two calculator forms: one for use at swap events, and one for residents as a tool to increase the durability of behavior change.

Public Report/Documentation

RRS understands the value of publicly reporting data sources and calculations and will provide a report outlining assumptions and data sources. As stated previously, this documentation will not be peer reviewed and thus not compliant with ISO standards for third-party communication or comparative assertion.

Consulting Hours

RRS has reserved consulting time with our LCA Expert, Dr. Jackie Ebner. Her time will be spent explaining the methodology to the City staff, collaborating with the ZeroWaste.org team, and reviewing any data provided by the City to inform any adjustments required. Additionally, she will assist project analysts in revising the model and performing quality assurance and validation. She will also advise the City or their tool developers on the integration of the emission factors.

Impact Reporting

ZeroWaste.Org will prepare monthly and annual reports and social media assets with A²ZERO styles and branding.

Timeline

Phase 1: Stop Gap Data Collection

- **Timeline:** Immediately upon contract execution
- **Activities:**

- ZeroWaste.Org will implement a bare minimum data collection form for the monthly swap days to ensure the City will be able to make retroactive impact calculations once the full calculator is available.

Phase 2: Impact Model & Calculator

- **Timeline:** Months 1-3
- **Activities:**
 - Develop the impact model using the RRS methodology.
 - Collect initial data at swap events to feed into the model and test feasibility.
 - Build initial versions of the impact calculator, integrating emission factors provided by RRS.

Phase 3: First Implementation

- **Timeline:** Month 4
- **Activities:**
 - Implement the first iterations of swap and individual impact calculators.
 - Gather feedback from the City of Ann Arbor and other stakeholders on the calculator's performance.

Phase 4: Demo Reports & Model Refinement

- **Timeline:** Months 5-6
- **Activities:**
 - Generate initial demo reports using data from the calculator.
 - Refine the model based on feedback and initial data collection.
 - Collaborate with RRS to incorporate any additional environmental impact metrics.
 - Do retroactive reporting based on data from completed swaps.

Phase 5: Deploy & Improve

- **Timeline:** Month 7 and onwards
- **Activities:**
 - Deploy the refined calculators.
 - Prepare and release monthly and annual reports and social media assets.
 - Continuously improve the calculator and reporting processes based on ongoing data collection and feedback.

Assumptions

RRS assumes the majority of the work to be conducted for Tasks 2 and 5 will be front-loaded in the project timeline to accommodate the need to use the garment calculator for the duration of the project. All proposed work would be completed within 3 months from the project start date, but is subject to change. RRS' involvement will not be extended through the duration of the 2-year scope.

Any significant modifications to the proposed model beyond changes to material mass or composition, reduction or grouping of categories, or modification of other existing parameters will require discussion and a potential change order.

Task 6: 20 Hours of Flexible Program Support

Flexible program support provided by Deputy Director and project manager, Lydia McMullen-Laird

Task 7: Bi-Weekly Check-Ins

Bi-weekly check-ins attended by Lydia McMullen-Laird and Samuel McMullen to ensure alignment across all tasks. ZeroWaste.Org will be responsible for facilitating bi-weekly check-in meetings, including preparing an agenda and sharing 5-7 days in advance, and recording meeting minutes.

We'll use Microsoft Office Suite, including SharePoint, Word, and Excel as the official method of sharing, saving, and creating documents under this contract.

E. Authorized Negotiators

Lydia McMullen-Laird, (347) 276-2823, lydia@zerowaste.org

Samuel McMullen, (734) 834-9339, samuel@zerowaste.org

F. Attachments