

Project Summary/Abstract:

Statement of Need: The City of Madison has a need to make composting and food waste reduction accessible for residents and businesses. Currently, 20.7% of all waste going into the Dane County Landfill, which is the landfill utilized by the City of Madison, is food waste. This means at minimum, the City has thousands of tons of material that could be utilized to return nutrients to our soil. Attempts to establish a food scraps collection program for landfill diversion began in 2011 and have faced issues such as lacking a consistent partnership with a location to accept material, lack of access and support for residents and businesses to compost, need for data collection to support impact of the effort, and contamination in the materials collected. In July 2021, the manure anaerobic digester that had accepted a limited stream of food waste ended stopped accepting all food substrates to focus solely on the higher value manure. This leaves Madison at present without a facility to process food scraps. There is an immediate need to develop a new location partnership (focused on composting) and use the opportunity to expand the program with residents and restaurants with community partners. USDA funding is needed to accelerate our food waste reduction program and meet our City goal to reduce food waste by 50% by 2030. *Proposed Programs:* The project includes a community composting initiative and a commercial food waste initiative with restaurants, which both take a multi-sector approach and accelerate economic benefits to community farmers and commercial business owners. *Audience & End Users:* The audience is Madison residents and restaurants. End users are residents and restaurants dropping food scraps at community collection sites, the Neighborhood Food Solutions (NFS) Farm creating compost from the food scraps and NFS farmers using the compost for improved soil quality, agricultural production, and selling produce at the Farmers Markets.

This program addresses the objectives in the purpose of the CCFWR by:

- Generating composted materials from resident and restaurant food scrap collection
- Increasing food recovery and donation of food from restaurants
- Increasing access of agricultural producers to compost by partnering with NFS to add additional food scraps to their existing compost system onsite
- Improving soil quality at NFS, which will allow for expansion of farmable land
- Diverting food waste from landfills

This project addresses the priorities of the CCFWR by:

- Accelerating economic benefits for restaurants that reduce food waste
- Makes compost easily accessible to agricultural producers at NSF by it being onsite
- Incorporating food waste reduction strategies, including food recovery with restaurants
- Partnering with five community partners and 10 - 50 restaurants on this program

Building upon related work or programs: This program builds upon the recent success the City of Madison had with three public drop-off sites prior to that program's end. This new program will replicating those drop-off sites and expand opportunity thanks to NFS accepting the material for their urban agriculture work. Expansion will include two farmers markets and additional community sites to make drop off more convenient and accessible. Restaurant components to reduce food waste, increase food recovery, and provide food waste for composting are building off an existing partnership with Natural Resource Defense Council, who has worked in Denver, Nashville, and Philadelphia on implementing a similar model.

I. Introduction:

The Need & Assessment of Composting Challenges: The City of Madison’s project will be able to establish necessary linkages between residents, composters, restaurants, and community education around composting and food reduction and recovery. And this will lead to meaningful urban agricultural and economic benefits as NFS builds high quality soil for further expanding their farming and educational opportunities. Funding for these initiatives is also essential to move forward the City of Madison’s goal of reducing food waste by 50% by 2030.

Most recently, the City was sending a minimal amount of food scraps from three community collection point to a regional anaerobic digester that processes cow manure. However, the digester stopped accepting food waste at the beginning of July 2021 to focus on higher value cow manure digestion methane. The City had known that the digester would not be a long-term solution, but the change came faster than anticipated. This provides a significant need to move forward with a new program and partnerships for food scrap collection, community composting, and food waste reduction.

The City of Madison currently does not have ways of composting large amounts of food scraps to a composter or biodigester. The absence of a robust composting program in Madison is not due to a lack of interest or effort. A robust composting program has been a pursued by Madison for a decade, beginning with its initial curbside organics collection pilot of 2011. Curbside composting citywide was the public’s most-named priority for the 2014 city budget, according to an online poll.¹ In 2014, the Mayor and Common Council directed the Madison Food Policy Council to lead a taskforce that would review city practices in the area of food waste and to identify potential partners and stakeholders that could join the city in the area of food waste reduction.² Recommendations from this council included the expansion of the organic waste collection program and establishment of a community composting program. Unfortunately, in intervening years, the City struggled to achieve these goals due to budgetary constraints and collection difficulties. Contamination within its food waste collection was a particular problem, and caused Madison to be rejected from three different food scraps processors, (which highlights the importance of community partners and community-based education as part of this initiative). According to a waste characterization study completed at the Dane County Landfill in 2020, which is the landfill utilized by the City of Madison, 20.7% of residential waste collected is food scraps. Madison’s Streets Division, which provides municipal trash collection to single-family homes and residents of multi-family buildings up to 8-units, collects roughly 46,000 tons of trash each year destined for the landfill. Applying the number from the waste characterization study’s food waste number, this means the Streets Division’s trash collection contains over 9,000 tons. This represents the minimum tonnage of food waste available in the City of Madison. This number does not capture the tonnage of food scraps contained within the trash collected by private operators in the Madison that service the many condominium and apartment towers, large businesses, most restaurants, and schools (including the University of Wisconsin).

¹ https://madison.com/wsj/news/local/govt-and-politics/madisons-curbside-composting-program-limps-along-amid-lack-of-funding-contamination/article_a6a22b8a-ae2b-58bf-8de8-b66f036107e4.html#tracking-source=article-related-bottom

² <https://www.cityofmadison.com/mayor/programs/food/madison-food-policy-council/food-waste-reduction-taskforce>

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Location: Madison is the capital city of Wisconsin located in Dane County. In 2018, Madison had a population of 258,000 people with a median age of 30.5 and a median household income of \$64,101.³

Past Composting Efforts: The City of Madison has tried municipal composting and food waste reduction strategies over the past decade. From 2011 to 2018 the City ran an organics collection pilot program where volunteer residents and businesses in limited areas of Madison could receive curbside pickup of their material. The collection featured 35-gallon carts the Streets Division collected weekly at the curb with an automated collection truck. Residents were also given a free kitchen caddy to carry the food scraps from their home to the cart. Initially, the program also offered free compostable plastic bags for residents to line their kitchen caddy (this practice was discontinued in 2016 due to cost). The organics program changed processors many times while it operated. In 2011, the program started with a processor that attempted to produce fill material for various projects, which allowed for a more forgiving feedstock, which allowed residents to include things typically excluded from food collection programs like diapers and pet waste, and contamination issues posed no real concern. However, that facility closed, which forced Madison to find alternative processors and could only locate those who needed a cleaner stream to produce compost that would be used on fields and gardens. This changed the eligible food waste to vegetable and fruit scraps, bones and animal fat to food-soiled paper. Over time, the pilot grew from 500 households to over 1,100 (the City has 108,000 households) and included 40 businesses (which was mostly restaurants, but included three schools and a church). However, in 2018, the organics program ended officially due to contamination and an inability to find another composting partner. In 2019, the City launched an 8-week curbside collection trial with deliberate rebranding by changing the program to a “food scraps recycling” instead of “organics”, changed the collection method from an automated truck to a two-person rear-loader crew, curbside bin inspection by these crews, and working with the local biodigester to design a new limited menu of food it could process. The City also improved communication to residents with a smartphone app, now branded as Betterbin, where residents who look up what could or could not be accepted into the food scraps program, and regular communication with the participants. This program collected about 4.07 tons of clean food scraps from 165 households. The results were promising, but collection was far too slow at the curb to scale up, so plans shifted to provided food scraps seasonally at the three staffed City of Madison Streets Division drop-off sites where similar control over the feedstock could be had. The pandemic disrupted a proper roll-out of the drop-off program in 2020, but it was moderately successful considering the circumstances and collected 8,000 pounds of food by the program’s pre-determined pause in October 2020.

Current Composting Efforts: As of July 17, 2021, Madison will not have a municipal food waste composting effort. The biodigester that had been accepting food waste from Madison successfully since the 2019 curbside pilot transitioned away from accepting food scraps. While the City did know in advance it was very likely food scraps would not be accepted at the biodigester beyond 2021, the biodigester communicated a much earlier cessation of accepting food than previously anticipated. Outside of backyard composting options, the only resource available to residents locally are two private vendor curbside collections services.

³ <https://datausa.io/profile/geo/madison-wi/>

Our Approach:

Community Composting Program:

This program will fill the immediate gap between resident desires to compost food waste and the coordination of transporting uncontaminated waste to a farm that will use the compost. By looking to expand the locations where food scraps can be taken for composting, it opens up ability for more residents to participate in food waste reduction. While the City drop-off sites at the Streets Division locations kept material clean, as the hours were limited and the sites themselves were not easily accessible unless the resident had access to a car.

Our approach helps solve two historical issues with Madison's composting efforts - access for those interested in participating and a place to take the food waste to turn it into compost. Also through the expanded partnerships, we have the capacity to offer neighborhood-based sites with education and monitoring on what can be put into the collection and assisting with coordination of processes during non-standard work hours for City employees.

Community Composting Program Goals:

- Establish new partnership with Neighborhood Food Solutions Farm
 - Fill a need in current composting at the site by bringing additional food scraps to the compost pile which community farmers use to increase their growing potential with healthy soil
 - Increase farmland usage by fueling the compost used to regenerate the soil
- Increase residential composting by adding two additional drop sites at local Farmers' Markets in year one
- Increase resident education around composting by offering education at Farmers' Market composting drop sites
- Reduce contamination of resident composting by having volunteers monitor food scraps dropped off at Farmers' Market drop sites
- Have 6 total community drop sites by the end of year two with location, size and hauling logistics determined by data collected from the pilot Farmers' Market sites

Paid team members and volunteers at the two Farmers' Market sites will review compost buckets that residents drop off, and also collect data on how much waste is collected and the general location of where it is coming from. They will also educate residents on limiting contamination and the benefits of the food scraps being used for compost. Information collected will help inform community interest in composting and help inform the placement of future more permanent drop sites that will get installed in year 2.

Food Scraps to Improve Farm Soil: All food scraps will be taken to Neighborhood Food Solutions (NFS) Farm which supports formerly incarcerated individuals in urban agriculture and teens in entrepreneurial and agricultural training. NFS provides farming opportunities for community members who may not normally have the access and resources to learn about and participate in farming. They also sell the produce they grow at the South Madison Farmers Market. With this partnership, food scraps collected at the Farmer's Market will help to rebuild and create healthy soil to grow produce that community members will come back to the Farmer's Market to sell. This partnership will fill a need for NFS Farm as well. They need the compost for soil regeneration. NFS is currently using only one-fourth of the land to farm due to poor quality

of the soil that they inherited when they purchased the land. The previous owner of the land overused pesticides, did not rotate crops, and failed to till the land. This project will allow them to create additional compost that will be able to help build high quality soil for further expanding farming opportunities. This will lead to meaningful agricultural and economic benefits for the community.

Commercial Food Waste & Food Recovery: This initiative will involve restaurants participating in a Restaurant Food Waste Challenge. The Challenge will include education to staff about food waste tracking and reduction strategies, food waste metrics data tracking, a pilot opportunity for composting kitchen food scraps, and support for restaurants to take a food waste reduction strategy and a food recovery strategy.

Commercial Food Waste & Food Recovery Program Goals:

- Use the Natural Resource Defense Council Restaurant Food Waste Challenge guide as a toolkit to establish a Food Waste Restaurant Challenge model in Madison
- Engage 10-15 restaurants in implementing food waste reduction and recovery
- Collect data and metrics to show impact to restaurants
- Evaluate the economic and environmental benefit of restaurant participation

According to The Business Case for Reducing Food Loss and Waste, the average restaurant saves \$7 for every \$1 invested in reducing kitchen food waste.⁴ This program would help pilot and guide restaurants through evaluation of current food waste practices, tracking data to measure environmental and economic impacts from baseline and implement food waste strategies for their overall restaurant financial health and reducing their carbon footprint.

II. Objectives and Procedures:

1.) Establish Composting Partnership with Neighborhood Food Solutions (NFS) Farm. In the proposal, NFS will be a new location to bring residential and commercial food scraps from the expanded collection points and NFS will convert the food scraps into compost. NFS will use the compost to improve their soil and expand their community-based urban farming opportunities. The collection and transportation of these food scraps will happen from April - October, with planning and data evaluation in November - March.

Composting will be contributing and supporting continued development and expansion of current programming at the NFS Farm which includes two primary programs, PEAT and FAIR. *PEAT: Program for Entrepreneurial and Agricultural Training* provides mentorship and job training courses for teens who are able to gain hands-on experience of running a farm and selling their crops at a market. NFS also runs the *FAIR: Farming After Incarceration Release* which engages formerly incarcerated individuals in urban agriculture to create an economic opportunity for themselves and their family. Not only does it provide a way for a successful reentry process, but also it involves them in cultivating a just local food systems in their own communities. Each participant receives a plot of land to grow crops and a spot at their local farmer's market to sell what they have grown. Providing compost to NFS is filling a need for additional compost that was previously provided by another company, but now no longer is able to drop off food waste at the farm. The NFS partnership will allow them to easily and accessibly have access to compost

⁴ <https://champions123.org/publication/business-case-reducing-food-loss-and-waste-restaurants>

and improve soil that can be used by community members participating in the NFS programs. NFS farm team would manage the process of food scraps into compost and of distributing the compost onsite to improve soil quality and increase farm sites for community members.

2.) Collect Resident Food Waste at Farmers Market Sites: Central to the community composting program will be establishing two farmers market drop sites which will increase access for residents and divert food waste from the landfill. The Sustain Dane Program Manager would manage the farmer's market drop sites including overseeing team members from NFS paid for their time and volunteers from F.H. King Student Group to provide education on food scraps and composting, collect data metrics, and inspect the food scraps for non-contamination. F.H. King will lead team members staffing the drop sites in shared composting education to provide to the community, and how to identify and remove contamination. Partnership with the NRDC will help supply the equipment and guidance on setting up processes for successful collection at the farmers markets. Sustain Dane and the City of Madison Streets Department will coordinate to transport the food scraps collected at the farmers market sites to NFS farm.

This will also be an opportunity for other farmers selling food at the farmers' market who could learn about and engage with the program – or even replicate this model at their own booths at the market. The drop sites at the farmers markets will occur between April and October for both years of the grant, with logistics coordination between November and March. Data will be collected at the drop off sites, including number of people who drop off food scraps, total pounds of compostable material collected, and geography of where residents live (to help inform future locations for community composting locations).

3.) Collect Resident Food Waste at Community Drop Sites

This program will replace the most recent efforts by the Streets Division to provide food scraps collection. However, considering the City's goals, the Streets Division will remain a long-term partner and will be able to provide logistical support, especially as the program expands, where possible with their staffing limitations. Partnership with the NRDC will help supply additional guidance from fellow Food Matters cohorts on setting up the additional compost drop off structures based in neighborhoods for more community access.

4. Education for Community Members on Composting Food Waste: Grant funding will fund educational materials for the community on how to participate in the food scraps composting pilot including a poster board to display at the farmers market site, one Sustain Dane Lunch & Learn program each year on food waste and potential impact of composting, and how to participate in current community composting. Sustain Dane will manage the education and collaborate with F.H. King Students for Sustainable agriculture to also educate team members working at the farmers market stands. Preparation for education materials will occur December 2021- February 2022, with a Lunch & Learn target date for spring. In the second year, we will re-evaluate the education materials and make edits as needed. Sustain Dane will also lead collection of the metrics to be turned into communication with the community about impact.

5. Restaurant Food Waste Challenge. The challenge will be overseen by the City of Madison Sustainability Coordinator, with outreach and restaurant coordination from the Sustain Dane Program Manager, and data and metrics led by UW Madison professor Alfonso Morales and

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Restaurant Food Waste Challenge consulting and supplies from existing partnership with NRDC. NRDC will also participate as a consultant to share best practices from the restaurant pilot work in Nashville, Denver, and Philadelphia (2020 awardee of the CCFWR grant). Planning for the Restaurant Challenge will occur in fall 2021-Spring 2022, with implementation of the Restaurant Challenge over a 3-month period in summer 2022. Metrics analysis will happen in the fall of 2022. The program will continue into a second year over summer 2023 with improvements based on the metrics and the opportunity to expand efforts at current or additional restaurants. Alfonso Morales, a professor at UW Madison will lead the metrics collection from restaurants, and will work on producing a report that analyzes the baseline food waste from restaurants as well as the environmental and economic impact for participating in the Restaurant Challenge. Sustain Dane will lead the outreach and coordination with restaurants, and will connect with food recovery efforts such as the Cook it Forward, which works with restaurants in the Madison area to deliver meals to those in need.

III. Collaborators:

Sustain Dane: 821 E Washington Ave, Madison WI, 53703

- Executive Director - Claire Oleksiak: 608-285-2454, claire@sustaindane.org
- Member & Development Specialist - Lucia Hunt: 608-285-2454, lucia@sustaindane.org

National Resource Defense Council

- City Strategist, Food Matters Initiative - Maddie Keating: 720-355-1842, mkeating@nrdc.org

Neighborhood Food Solutions:

- Director & Founder - Robert Pierce: 608-358-5834, rep1313@yahoo.com
- Manager - Shellie Myer

F.H. King: Students for Sustainable Agriculture at University of Wisconsin - Madison

- Farm Director - Ava Padilla: 414-239-3559, fhking.garden@gmail.com,

UW Madison Department of Planning and Landscape Architecture

- Professor - Alfonso Morales: 608-262-1004 morales1@wisc.edu

Partners were selected for their experience and connections to collaboratively work on community composting, reducing food waste and investing in the local economy.

Neighborhood Food Solutions - NFS runs a farm program that is in need of food scraps to turn into compost. The compost is important for them to improve the soil quality on their site and to expand their farming opportunities for teens from primarily communities of color and for formerly incarcerated individuals. We support their founding principles: (1) to engage community members in learning about the economic, social, health, and environmental impacts of food, and (2) to promote active participation from community members and help implement community development strategies that create food-related economic opportunities.

Sustain Dane (SD) - Over 20 years of being the lead sustainability organization in the County. The City has an existing MOU with Sustain Dane and has partnered together on numerous projects. SD provides education and programs to the public and private sector that helps people successfully prioritize and implement sustainable actions. They are a trusted community organization that work at the intersection of environmental health, social wellbeing, and a just economy. SD has assisted residents and restaurants complete food waste reduction projects and

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has relationships with commercial, marketing, business, and agricultural sector in the area.

Natural Resource Defense Council (NRDC) - The City has a current grant from NRDC which will be leveraged in this partnership. NRDC's Food Matters program partners with cities on a regional basis to adopt and expand policies and programs to prevent food from going to waste, rescue surplus food, and recycle food scraps. NRDC will participate in offering educational consulting, and match funding for supplies as part of this grant.

F.H. King - is a student-run agricultural collective connected to the UW that strives to connect land, food, and the Madison community, demonstrate alternative agricultural techniques and advocate for sustainability in our community. F.H. King has a two-acre organic farm in Eagle Heights from which they give out produce for free on Library Mall through the Harvest Handouts program. Outside of the growing season, F.H. King hosts educational programming, workshops, and community events.

UW Professor Alfonso Morales- has extensive experience tracking data and metrics within local food systems at the intersection of business and agriculture. He is well poised to lead the data collection advising, metrics analysis and report on the restaurant food waste challenge and food recovery metrics for this project. His research interests include social science theory and methods, organizations, food systems, public marketplaces, and street vendors. In addition, their applied research supports non-profit organizations and co-created the farm2facts.org toolkit for farmers market managers.

IV. Evaluation: See below for timeline of activities, milestones and deliverables, and the charts at the end of the document for evaluation metrics. In addition to quantitative metrics, we will also conduct feedback surveys of all partners involved in the project, volunteers, residents, and restaurants to gain qualitative feedback and suggestions for future replication.

Timeline of Activities, Milestones & Deliverables

Phase 1 Activities: October 2021 - March 2022:

- City of Madison and Sustain Dane Project Manager (PM) determine farmers' markets drop site locations and logistics for processes of collection and hauling to NFS
- PM work with F.H. King Students to create and finalize onsite team and volunteer training on composting education and contamination checking
- City of Madison and Sustain Dane arrange hauling logistics with NFS
- Develop strategy for research methodology and data collection for data from farmers market drop sites and the restaurant food waste challenge with PM and Prof. Morales
- Research and outreach to current food recovery efforts to establish partnership for involvement in Restaurant Food Waste Challenge
- City of Madison, PM, and develop Restaurant Challenge toolkits for Madison with incorporating lessons learned from other cities
- Purchase equipment

Phase 1 Deliverables by March 2022

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- Outline of farmers market operating procedure and hauling logistics between farmers market drop off sites and NFS
- Press release and marketing promotion of farmers market drop sites and restaurants
- Create a poster guide for community composting best practices (through this program)
- Create a guide and training course for the contamination quality control volunteers
- List of personnel involved and volunteer needs schedule for the market season
- Methodology and data collection plan established
- Secure volunteers for the market season
- Receipts of purchased equipment

Phase 2 Activities: April 2022 - October 2022:

- Market season 1 collection of food waste at farmers' market
- Farmer market staff and volunteer training for working at the drop off site
- Hauling of food waste collected to NFS
- NFS conversion of food scraps into compost and when ready compost applied to soil
- Restaurant Food Challenge:
 - Outreach to participate completed by May 2022
 - Challenge runs June 2022 - August 2022
 - Metrics tracking of food waste reduction & recovery strategies by October 2022
- Site visit to NFS June and October to review compost generated at NFS, soil improvement, and farmland usage increase from start of program
- Sustain Dane Lunch & Learn about program

Phase 2 Deliverables by October 2022

- Raw data collected from farmers market sites including total number of people who dropped off food waste, pounds of food waste collected each week, number of volunteers present, and total number of hours at farmer market sites
- Raw data on Restaurant Food Challenge
- Feedback surveys from residents and restaurant participants
- List of restaurants who participated in the Restaurant Challenge
- Photos of farmers market drop sites and composting operating at NFS
- Powerpoint from Lunch & Learn

Phase 3: Activities Oct 2022 - March 2023:

- Measure & evaluation of farmers market sites, NFS composting, Restaurant Challenge economic impact and more to prepare for the 2023 season
- Analysis of data and feedback from surveys
- Outreach for corporate/other sponsors for expansion/growth to other farmers market drop sites and expanded capacity
- Decide on location of accessible neighborhood-based drop sites
- Confirm farmers market process for year two
- Confirm restaurant participants and/or outreach for additional participation in 2nd year
- Press release and marketing promotion of impact during year one and opportunity for residents and restaurants to participate in year two

Phase 3 Deliverables:

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- Report with data and recommendations including farmers markets and existing community drop sites participation and tons collected, economic benefits report from restaurants who participated in the challenge, and agricultural impact at NFS in terms of tons of compost created, soil improvement and crop production increase
- List of additional community drop site locations added for next season
- List of supplies needed for establishing new community drop sites and outline of steps need to complete
- List of restaurants participating in Restaurant Challenge 2023

Phase 4: April 2023 - October 2023: Market Season 2

- Market season 2 collection of food waste at farmers' market
- Farmer market staff and volunteer training for working at the drop off site
- Hauling of food waste collected to NFS
- NFS conversion of food scraps into compost and when ready compost applied to soil
- Additional neighborhood drop site locations implementation
- Restaurant Food Challenge:
 - Outreach to participate completed by May 2023
 - Challenge runs June 2023- August 2023
 - Metrics tracking of food waste reduction & recovery strategies by October 2023
- Site visit to NFS June and Oct to review compost generated at NFS, soil improvement, and farmland usage increase from start of program

Phase 4 Deliverables:

- Raw data collected from farmers market sites including total number of people who dropped off food waste, pounds of food waste collected each week, number of volunteers present, and total number of hours at farmer market sites.
- Raw data on Restaurant Food Challenge
- Feedback surveys from residents and restaurant participants
- List of restaurants who participated in the Restaurant Challenge
- Photos of farmers market drop sites and composting operating at NFS

Phase 5: Sept 2023 - October 2023: Final Report Writing

- Analysis of project, data, survey feedback
- Measure & evaluation
- Recommendation on funding for continuation beyond grant
- Presentations at local and regional conferences to share the model

Phase 5 Deliverables:

- Final report with metrics and impact report presented to USDA and all partners
- Recommendation for continuation of composting in City of Madison
- Economic benefits report from restaurants who participated in the challenge
- Analysis of how to replicate this model across Dane County and in other regions

V. Self-Sustainability:

The opportunity provided by this grant will extend beyond the years outlined above.

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Once established, the community drop-off sites will remain a valuable resource in providing food scraps recycling to residents of Madison. It will also serve as the basis to eventually transition to curbside collection of food. This would follow the same general trajectory that general recycling followed in the City where it began as drop-off points located around the city and grew to curbside pickup as demand and processing capability expanded. Funding to serve and expand these sites could be found by the City of Madison and provided to residents as a service, as it does other waste hauling.

Related to processing capability, parallel to this grant opportunity, the City has engaged in other discussions with various partners to potentially increase availability of post-consumer food scraps composting locally. While NFS will be a valuable partner, the farm itself is too small to use all of the compost that could be generated by a fully implemented citywide food scraps program each year, so more processing capability will be necessary in time. By increasing access as this program will, it provides a crucial step to building toward the overall goal of curbside food scraps collection. It will help create demand for this service by residents that will convince policymakers to make the appropriate investment for citywide composting – which in turn will produce ample material to support NFS and other farming opportunities.

Madison has one of the highest number of restaurants per capita in the United States. Successful restaurant week challenges has the potential to transform into best practices for the restaurant sector. As part of the NRDC grant, the City committed to engaging with public health inspectors to provide information regarding food donation to restaurants. The lessons from restaurant week could also be imparted to all restaurants in Madison by the health inspectors to have a lasting impact across a large section of our local economy.

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Evaluation Target Outcomes:

| Community Compost Drop Sites Project Outcomes | Target | Notes |
|--|---------------|--|
| Farmers Market Drop off sites | 2 | Active from April-Oct 2022 and 2023 |
| Neighborhood Compost Drop Off Sites | 3-6 | Start with existing 3 sites, add 3 additional sites by end of 2023 with participation data collected over 2022 |
| Public workshops conducted (#/yr.) | 1/yr | Sustain Dane Lunch & Learn on composting and current programs available |
| Volunteer trainings conducted per year | 2 | In April 2022 and 2023 |
| Total wasted food composted (lb/ 2yr.) | 7,020 | Assumes average generation of 3 lb per household and 45 households participating in year 1 and 65 in year two |
| # of people dropping compost per week (#/wk) | 45-55 | Assumes 15-20 households per Farmers' Market site per week + 5 per drop site location. |
| Increase of farmable land at NFS (expansion on farm after 2 years) | +25% | Currently ~¼ of land is farmed due to poor soil. Goal to increase by 25% by end of year 2. |

| Project Outcome of Restaurant Challenge | Target | Notes |
|--|---------------|--|
| Restaurants participating in food waste challenge per year | 10-15 | 10 - 15 per year. 20-30 over two years |

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| Restaurants who implement at least 1 food waste reduction strategy | 80% | Of participating restaurants in the challenge |
| Total wasted food composted during yearly challenge of 3 months with 12 weeks of compost pick up (once per week) x 2 years | 84-126 tons (2 years) | Assumes average generation 700lbs per week per restaurant for 10-15 restaurants. |
| Average food recovery percent for participating restaurants | 5% | % of wasted food that goes towards food recovery donations |
| CO2 emissions reduced (MTCO2E) | 9.71-14.56 | Based on EPA WARM tool |

Budget Narrative (separate document):

The total projected project cost is \$120,000 which includes \$90,000 of federal funding from the USDA and \$30,000 of match funding provided by the City of Madison and NRDC.

Contracted Personnel Breakdown: Funding for Sustain Dane totals \$67,000 over 2 years which covers funding for three roles, a Program Manager, Development Coordinator and Executive Director.

- The Sustain Dane project manager will work closely with the City of Madison staff to oversee project management of the community composting drop sites, coordination of compost hauling, and Food Waste Restaurant Challenge coordination. The Project Manager will be a part-time position (50% of full time) at an hourly rate of \$24, which equals \$24,960 annually and a total of \$49,920 over two years.
- The Development Coordinator will assist with grant management including reporting and will be funded at a rate of \$26/hr (rate including benefits) at roughly 7% of time, or 140 hours per year, and 280 hours over two years, which totals \$7,280.
- The Executive Director of Sustain Dane will oversee the Project Manager, at roughly 7% of time with 140 annual hours and 280 hours over 2 years at a rate of \$35/hr (rate including benefits) which totals \$9,800.
- In total, Sustain Dane will receive \$67,000 over 2 years.

There will be a \$8,000 total stipend (\$4,000 total yearly) allocated to help compensate staff at Neighborhood Solutions Farm who will be assisting with composting logistics on the farm site as well as staffing farmers market stands. Total stipend amount assuming 2 members will be assisting each year between April-October with a \$2,000 stipend each. The Neighborhood Food Solutions farm will also receive \$3,000 for a compost screener equipment to help make better compost for the farm.

Professor Alfonso Morales and his team of graduate students will receive a stipend of \$12,000 total (\$6,000 per year) to lead the data collection, analysis and metrics guidance for restaurants who are participating in the Food Waste Restaurant Challenge. They will produce a report outlining the economic and environmental impact of the Restaurant Challenge.

City of Madison Sustainability Coordinator Stacie Reece will provide \$6,250 annually of matching funds for staff time (at 7.60 % of annual time at \$82,198 annual salary) and Streets Department Recycling Coordinator Bryan Johnson will provide \$6,250 annually of matching funds for staff time (at 6.85 % of annual time at \$91,252 annual salary). In total, the City of Madison will provide \$25,000 in matching funds across two years.

The National Resources Defense Council will provide \$5,000 in total; \$3000 for compost drop-off sites and community compost site materials, \$2,000 contributed by NRDC for community composting consulting and training time in partnership with the Institute for Local Self Reliance.

Budget components

If total budget \$120,000
USDA - \$90,000

City of Madison Community Food Waste Reduction Initiative

Match - \$30,000 (25% of total)

USDA -\$45,000 per yr/ \$90,000 total

| | <u>Per year</u> | <u>Total</u> |
|-------------------------------------|-----------------|--------------|
| SD Coordination & Admin | \$33,500 | \$67,000 |
| Market Staff Stipend (Farm Members) | \$4,000 | \$8,000 |
| Farm - Equipment | \$1,500 | \$3,000 |
| Professor Alfonso Morales Team | \$6,000 | \$12,000 |

Match - \$15,000 per yr/\$30,000 total

| | <u>Per year</u> | <u>Total</u> |
|--|-----------------|--------------|
| City Staff Time | \$12,500 | \$25,000 |
| (Stacie/Bryan Oversight, Streets Delivering) | | |
| NRDC Equipment & Consulting | \$2,500 | \$5,000 |

City of Madison Community Food Waste Reduction Initiative

Budget Narrative:

The total projected project cost is \$120,000 which includes \$90,000 of federal funding from the USDA and \$30,000 of match funding provided by the City of Madison and NRDC.

Contracted Personnel Breakdown: Funding for Sustain Dane totals \$67,000 over 2 years which covers funding for three roles, a Program Manager, Development Coordinator and Executive Director.

- The Sustain Dane project manager will work closely with the City of Madison staff to oversee project management of the community composting drop sites, coordination of compost hauling, and Food Waste Restaurant Challenge coordination. The Project Manager will be a part-time position (50% of full time) at an hourly rate of \$24, which equals \$24,960 annually and a total of \$49,920 over two years.
- The Development Coordinator will assist with grant management including reporting and will be funded at a rate of \$26/hr (rate including benefits) at roughly 7% of time, or 140 hours per year, and 280 hours over two years, which totals \$7,280.
- The Executive Director of Sustain Dane will oversee the Project Manager, at roughly 7% of time with 140 annual hours and 280 hours over 2 years at a rate of \$35/hr (rate including benefits) which totals \$9,800.
- In total, Sustain Dane will receive \$67,000 over 2 years.

There will be a \$8,000 total stipend (\$4,000 total yearly) allocated to help compensate staff at Neighborhood Solutions Farm who will be assisting with composting logistics on the farm site as well as staffing farmers market stands. Total stipend amount assuming 2 members will be assisting each year between April-October with a \$2,000 stipend each. The Neighborhood Food Solutions farm will also receive \$3,000 for a compost screener equipment to help make better compost for the farm.

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Budget components

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USDA - \$90,000

City of Madison Community Food Waste Reduction Initiative

Match - \$30,000 (25% of total)

USDA -\$45,000 per yr/ \$90,000 total

| | <u>Per year</u> | <u>Total</u> |
|-------------------------------------|-----------------|--------------|
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| Farm - Equipment | \$1,500 | \$3,000 |
| Professor Alfonso Morales Team | \$6,000 | \$12,000 |

Match - \$15,000 per yr/\$30,000 total

| | <u>Per year</u> | <u>Total</u> |
|--|-----------------|--------------|
| City Staff Time | \$12,500 | \$25,000 |
| (Stacie/Bryan Oversight, Streets Delivering) | | |
| NRDC Equipment & Consulting | \$2,500 | \$5,000 |