**PROJECT TITLE: A community table: food waste and climate change**

**I. PROJECT STATEMENT**

Our proposed project focuses on climate change with the overall goal being the prevention of food waste. We will focus on household food waste, helping Minnesotans think creatively about shifts in their household behaviors and gathering knowledge that will meaningfully impact waste prevention and education. Our approach differs from other work on this issue in that we are asking why food waste happens in the first place. We will be attentive to differences of income, race, gender, and region (particularly rural vs urban Minnesota) and we will study food waste holistically- as a part of a family’s cultural, social, and economic practices. This nuance matters in finding solutions for the majority of Minnesota. Expanding existing solutions, without further insight into changing household behaviors will not yield the maximum reductions in food waste. Our approach also differs in that we will co-create research and educational materials with community partners, which will enable Minnesotans to bring their perspectives to the research questions and analysis. We will consider questions such as:

* What are the potential greenhouse gas savings from household level changes in food waste?
* How has conventional wisdom been wrong about the causes of household food waste and what can we do that will more effectively address the situation?
* How does our food system distribute the benefits of food (quantity and quality) and the costs (greenhouse gas emissions and food insecurity) at the household level?

Wasted food in Minnesota annually emits the same greenhouse gas emissions as over 685,000 passenger vehicles driven for one year, more vehicles than the entire populations of Minneapolis, Rochester and Duluth combined. About 40% of food waste occurs in households, despite more than a century of household education on food waste prevention. The advice has not worked, even when knowledge of the environmental impacts are readily available. Moreover, recent research in other states indicates that many households already understand, and are experiencing, multiple pressures around their everyday diets and eating, but struggle to implement these changes. At the same time, about one in ten Minnesota households are food insecure. This duality of food waste and food insecurity is symptomatic of a food system that is failing Minnesota.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1:** Co-creation of innovative strategies to address food waste through community-based participatory research, interactive art, and citizen science.

**Description:**We will being our work by building a MN food waste community group. This group will go beyond those listed in this proposal to include the voices from six communities across the state. Two urban (the Twin Cities & Moorhead) two rural MN communities, and two indigenous MN communities (one Anishinaabe and one Dakota). Our project team and partners have connections to communities across the state, enabling us to connect and engage in a respectful and meaningful way. Together we will co-create the research, including the conceptualization, design, implementation, dissemination, and application, all of which strengthen the validity of our results. Creating this group, building trust among participants, and hearing their experiences with the food system and food waste is crucial for actively engaging communities in our research and outcomes. Our approach will lead to comprehensive and inclusive food waste prevention strategies that have the opportunity to reduce more greenhouse gases.

The MN food waste community group will also work with us to create an interactive art piece as well as a food waste citizen science tool. It is critical for the success of the interactive art that community members and researchers create this work together. We will use the food waste interactive art as a research and education tool in each partner community during the community events outlined in Activity 2. After these events, we will encourage households to continue connecting with the issue of food waste through the creation of a citizen science tool. With this, households can track their observations on where they see wasted food (at home and in their neighborhoods) and how this changes seasonally, by time of day, etc. The data gathered through this platform will provide an unprecedented dataset on food waste that will enable targeted interventions that will decrease the total amount of wasted food and accompanying greenhouse gas emissions.

**ENRTF BUDGET: $365,476**

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| **Outcome** | **Completion Date** |
| 1. Establishment of a MN food waste community group comprised of 6 MN communities | 9/30/20 |
| 2. 10 meetings with the MN waste community group resulting in the community connections, research plan, and research tools necessary for data collection | 9/30/21 |
| 3. Completed co-creation of food waste interactive art and citizen science tool | 9/30/21 |

**Activity 2:** Food waste stories, education, and data collection / analysis

**Description:**Our research and education are interlinked and iterative. We will travel to each community twice during the data collection phase of this project, hosting community events in each of our six research communities. At these events, which will be hosted with the help of our MN food waste community members, we will use the food waste interactive art to draw people to our “table” where they will learn more about food waste and its connections to climate change and food insecurity. This will also create a platform for capturing people’s food stories, gathering information about the practices and politics that generate leftovers, peelings, spoiled food, etc. thereby creating further knowledge on how waste happens and innovative strategies for prevention. We aim to collect 10 stories at each community event and we will use these food experiences and histories to improve prevention initiatives, as the stories contextualize food waste in people’s everyday lives. Through discussions, we will get better information about the kind of waste that is frustrating to people and what kinds of initiatives are most helpful. At these community events, we will also promote our citizen science tool, building a base of food waste citizen scientists.

Between these community events and after their completion we will be analyzing the food stories and incoming citizen science data. Using this data, and pairing it with the education campaigns at the community events, we will be able to measure the effects that our research activities and educational materials have on preventing household food waste. This will enable us to report on the amount of food waste (and thus greenhouse gasses) prevented throughout this project. We will also use the data and learnings from this project to provide recommendations for changes in food waste education and prevention initiatives that are specific to the circumstances, location, and lifestyles of a diverse group of Minnesotans.

**ENRTF BUDGET: $493,740**

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| **Outcome** | **Completion Date** |
| *1. Twelve community events (2 in each of the 6 research communities)* | *10/31/2022* |
| *2. Recommendations for changes in food waste education and prevention initiatives* | *6/30/2023* |
| *3. Reporting on the total avoided greenhouse gas emissions from project activities* | *6/30/2023* |

**III. PROJECT PARTNERS AND COLLABORATORS:** Along with those listed in the budget and the community partnerships we plan to develop in year 1, we will also collaborate with the MN Pollution Control Agency, Second Harvest Hartland, SNAP Ed and LaDonna Sanders-Redmond, an experienced Diversity Manager with experience working in retail food and agriculture industry.

**IV. LONG-TERM IMPLEMENTATION AND FUNDING:**

This work, while significant, can also be thought of as a pilot. Success in this project can lead to work in other communities across the state. Due to the significant local and national interest in food waste, many local and federal granting agencies, including USDA, NSF and EPA, are funding projects in this space. Additionally, the 30+ member Sustainable Growth Coalition, a group of Twin Cities-based organizations, is considering food waste reduction project opportunities. Our team has ongoing working relationships with some of the key participants, including Cargill, General Mills, and Target Corp., who have expressed interest collaborating on projects focused on food waste.