2019 SUSTAINABILITY REPORT

HEARTSIDE GLEANING INITIATIVE

An in-depth assessment of Heartside Gleaning's many operations. Included are goals created from significant aspects, metrics to measure these goals, and realistic ideas of ways to achieve these goals. This promotes our continuous improvement, and it aids us in our hope to eventually build a sustainable community organization and sustainable community.

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According to ReFED (Rethink Food Waste Through Economics and Data) about 63 million tons of food is wasted each year in the United States; and that every year, American consumers, businesses, and farms spend $218 billion a year, or 1.3% of GDP, growing, processing, transporting, and disposing food that is never eaten. In addition, food waste consumes 21% of all fresh water, 18% of cropland, 19% of all fertilizer, and 21% of landfill volume (Powell). What a waste! Heartside Gleaning was created in attempt to help combat the many environmental issues surrounding food waste, while also prioritizing food justice and food access to low-income individuals and families.

Though relevant to the organization's mission, the term *sustainability* came as bit of an afterthought. However, the management of food waste and sustainability are acutely intertwined, since our food is cultivated, transported, and processed using our natural resources. Sustainability is defined by the United Nations World Commission on Environment and Development as, "the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs" (Evans). It essentially means, a prolonged and circular endurance or sustaining, particularly relating to the systemic functions of society (Evans). In this context, we are discussing the sustainability of the global food system and the food system in the United States. The phrase *sustainable management of food* connects the ideas of managing food waste and promoting sustainability. The phrase refers to, "a systematic approach that seeks to reduce wasted food and its associated impacts over the entire life cycle, starting with the use of natural resources, manufacturing, sales, and consumption and ending with decisions on recovery or final disposal" (EPA). Managing food sustainably, and therefore reducing the amount of wasted food, is beneficial to communities, consumers, businesses, our economy, and the Earth. By preventing food waste on a societal scale, we save money by spending less on trash pickup, and by spending less overall. In addition, non-profit organizations can receive tax benefits for produce donations, which they can then use to improve their community. Additionally, as a gleaning organization specifically, we directly feed people instead of landfills. We provide community members with healthy, hearty food they can bring home to their families. Sustainable management of food and reducing food waste not only improves the lives of humans, but it helps our environment too. It reduces methane and carbon dioxide gases that are produced when food decomposes in landfills; it saves our resources such as water, gasoline, energy, and fertilizers; and it returns nutrients to the soil when the food is composted instead of sent to landfill (EPA).

Ultimately, food waste reduction and environmental sustainability go together. Eliminating food waste is a small puzzle piece in achieving the wicked goal of total environmental sustainability. Creating partnerships to benefit the planet, and to benefit our people, is a goal that will promote the circularity of our economy and of our lifespans.

HEARTSIDE GLEANING

GOOD FOOD — CULTIVATING COMMUNITY

OUR MISSION

Heartside Gleaning empowers Heartside and surrounding communities to become healthier through increased access to healthy foods and nutrition education, while diverting waste from landfill in the process. We do this by collecting excess produce from farmers' markets and transporting it to the low-income neighborhood of Heartside and surrounding communities for distribution to individuals, food pantries and free and low-cost meal programs. We are an organization that finds importance in sustainability and wants to redesign the way we think about food and food access, ultimately improving our planet, our community, and the lives of its members.

WHAT WE DO

Heartside Gleaning was formed to help low-income and homeless people in the Heartside community improve their health. The Heartside neighborhood, located in downtown Grand Rapids, Michigan, has an unemployment rate of 14% with over 43% of the population living below the poverty line. High poverty levels and low access to quality, healthy food has led to the Heartside community being labeled as a "food desert", where residents lack access to fresh, healthy, and affordable food. Because of the high poverty level and low access to food, many residents of the Heartside community rely on soup kitchens and food pantries for their daily food intake, where much of the food provided is low in nutrients and high in calories. Heartside Gleaning is working to change this by supplying fresh healthy produce collected (gleaned) from farmer's donations at area farmers' markets, to soup kitchens, food pantries, and low-income individuals enabling them to provide healthy options for meals. In addition, the Initiative provides education about healthy food and food preparation to neighborhood residents.

EMPOWER COMMUNITY MEMBERS

Many of our board members and volunteers reside in the Heartside neighborhood and other local communities served by the organization. Their direct involvement at all levels of Heartside Gleaning empowers residents to change their circumstances.

EDUCATION/COOKING CLASSES

Heartside Gleaning provides education to the general community about healthy lifestyles and food waste. In addition, Heartside Gleaning hosts free healthy cooking and canning classes for the members of the communities served.

PROVIDE FRESH PRODUCE

We glean unused fresh produce directly from farmers and provide free healthy options for individuals and families in the Heartside neighborhood. Heartside Gleaning's efforts work to directly combat common health conditions (e.g. obesity, high blood pressure, diabetes, etc.) and food waste.

IDENTIFYING OUR SIGNIFICANT ASPECTS AND ENVIRONMENTAL IMPACTS

After doing an in-depth assessment of our operations at Heartside Gleaning, we identified every relevant aspect that corresponds with each operation. Following that, we identified the environmental, social, and other impacts that can be outputs of those aspects.

In order to determine the importance of each aspect and impact, we developed a rating system based on the following equation:

(Frequency (x) Severity) (+) Consequences (+) Organizational Impact (=) Total Impact

We created this equation and system to be used in future years, by groups of individuals, to determine the importance and various impacts of future operations. The table below (Table 1.1) gives us a more exact methodology to follow when using the previous equation to assign numbers to operational aspects.

Table 1.1:

Value	Rating Definition					
negative 1 to negative 5		Beneficial environmental Impact	Beneficial Impact on environment	Beneficial Impact	Beneficial Impact if negative	
0	Never	No environmental impact	No environmental consequences	No impact		
1	Yearly/Monthly	Very low environmental impact	Very low environmental consequences	Very low impact		
2	Weekly	Low environmental impact	Low environmental consequences	Low impact		
3	1-2x a day	Moderate environmental impact	Moderate environmental consequences	Moderate impact		
4	>3x a day	High environmental impact	High environmental consequences	High impact		
5	24 hours/day	Very high environmental impact	Very high environmental consequences	Very high impact		

As shown in tables below (Table 1.2 through Table 1.6), each impact has received a numerical value assigned to each piece of the equation to determine the total impact. We scored each aspect/impact by its overall relevance to our organization and the externalities associated with it. The aspects with the most positive or most negative values are the ones we decided to focus on when creating our goals. According to these tables, the most relevant total impacts will be depicted in the darkest red and the darkest green colors.

Table 1.2:

Operation	Aspect	Impact	(Frequency (x)	Severity)	(+) Consequences	(+) Organizational Impact	(=) Total Impact
Saturday Gleaning and Distribution to Partners	Oil/gasoline consumption	carbon emissions, releases gas with high global warming potential	4	5	4	4	**28**
	Plastic bottled water consumption	waste sent to landfill, sometimes not properly recycled	2	4	4	2	**14**
	Boxed water consumption	waste sent to landfill, sometimes not properly recycled	3	2	2	3	**11**
	Usage of cleaning chemicals like Clorox wipes and hand sanitizer	waste sent to landfill, possible health and safety concern	2	2	2	2	**8**
	Paper usage for farmer tags	sent to landfill, sometimes not properly recycled, depletion of resources	2	2	2	3	**9**
	Usage of plastic zipties	waste sent to landfill, petroleum usage and air pollution in making product	2	3	1	2	**9**
	Plastic bag usage	sent to landfill, depletion of resources	3	4	3	3	**18**
	Battery usage for the scale	batteries sent to landfill	1	2	2	4	**8**
	Produce donations	community member empowerment, prevents the release of greenhouse gases, waste diversion, water saved, meal recovery, financial benefit, possible job creation	5	-4	-5	-5	**-30**

Table 1.3:

Good Food Box Deliveries	Oil/gasoline consumption	carbon emissions, releases gas with high global warming potential	3	5	4	4	**23**
	Plastic bag usage	sent to landfill, depletion of resources	3	4	3	3	**18**
	Use of printer paper and ink	sent to landfill, sometimes not properly recycled, depletion of resources	2	2	2	3	**9**
	Produce donations	community member empowerment, prevents the release of greenhouse gases, waste diversion, water saved, meal recovery	4	-4	-5	-5	**-26**

Table 1.4:

Tabling/Marketing	Oil/gasoline consumption	carbon emissions, releases gas with high global warming potential	1.5	5	4	4	**15.5**
	Use of tape to set up sign	sent to landfill	2	2	1	2	**7**
	Use of printer paper and ink for handouts	sent to landfill, sometimes not properly recycled, depletion of resources	1	2	2	3	**7**

Table 1.5:

Education	Use of printer paper and ink for cookbooks	sent to landfill, sometimes not properly recycled, depletion of resources	1	2	1	3	**6**
	Use of printer paper and ink for recipes	sent to landfill, sometimes not properly recycled, depletion of resources	1	2	1	3	**6**
	Canning classes	builds a sense of community, encourages a zero-waste lifestyle, further decreases food waste, allows for knowledge to be passed on	1	-4	-4	-3	**-11**
	Cooking classes	builds a sense of community, further decreases food waste, allows for knowledge to be passed on	1	-4	-4	-3	**-11**

Table 1.6:

Chili Luncheon	Oil/gasoline consumption	carbon emissions, releases gas with high global warming potential	1	5	4	4	**13**
	Boxed water consumption	sent to landfill, sometimes not properly recycled, depletion of resources	1	2	2	3	**7**
	Food packaging waste	sent to landfill, sometimes not properly recycled, depletion of resources	1	3	3	3	**9**
	Use of non-recycleable plastic utensils	sent to landfill, depletion of resources	1	4	3	3	**10**

After assessing each aspect and impact of our operations, we went forward by further evaluating the aspects with the most beneficial and most detrimental total impact score. As seen above, these aspects included:

1) Overall Oil/Gasoline Consumption
2) Municipal Solid Waste sent to Landfill
3) Produce Donations
4) Educational Classes

Within each of these individual aspects, we created objectives with measurable targets based on our metrics of operations from the past six years. We made these goals slightly challenging, but not impossible to achieve in the time frame. These goals are designed to make us work hard to achieve them within the next few years, and then reassess and edit the goals once we make it to the deadline.

OUR FOUR MOST SIGNIFICANT ASPECTS

Significant Aspect #1 – Oil/Gasoline Consumption

Objective and Target: Decrease our CO_2 emissions produced by 3% each year by 2025

Possible Actions to Achieve Objective and Target:

- Partner with the City of Grand Rapids transport and implement using the bus routes, or the shuttle routes for volunteers
- Partner with a service such as Uber or Lyft for volunteers
- Partner with a carsharing service
- Borrow or rent bikes for volunteers

Significant Aspect #2 – Municipal Solid Waste Sent to Landfill

Objective and Target: Decrease our amount of municipal solid waste sent to landfill by 1 pound each year until 2025

Possible Actions to Achieve Objective and Target:

- Begin a 'phase-out' to transition to 'plastic-free' operations
- Use rope or another reusable hanging material rather than disposable zip-ties
- Implement a 'zero-waste' cleaning process with cloths and cleaning liquid
- Keep a bin meant for recyclables in the truck so everyone has easy access to recycling

Significant Aspect #3 – Produce Donations

Objective and Target: Increase the weight of produce received and distributed to neighbors and partners by 3% each year until 2025

Objective and Target #2: Increase the amount of recipient agencies we partner with by 1 agency each year until 2025

Possible Actions to Achieve Both Objectives and Targets:

- Invest in farmers and volunteer with them before the gleaning season starts if there's opportunities
- Increase our amount of tabling events and broaden our locations of where we table
- Table off-season in winter, spring, and fall to keep public interest and awareness

Significant Aspect # 4 – Educational Classes

Objective and Target: Increase the amount of available cooking and canning classes by 1 class each year until 2025

Possible Actions to Achieve Objective and Target:

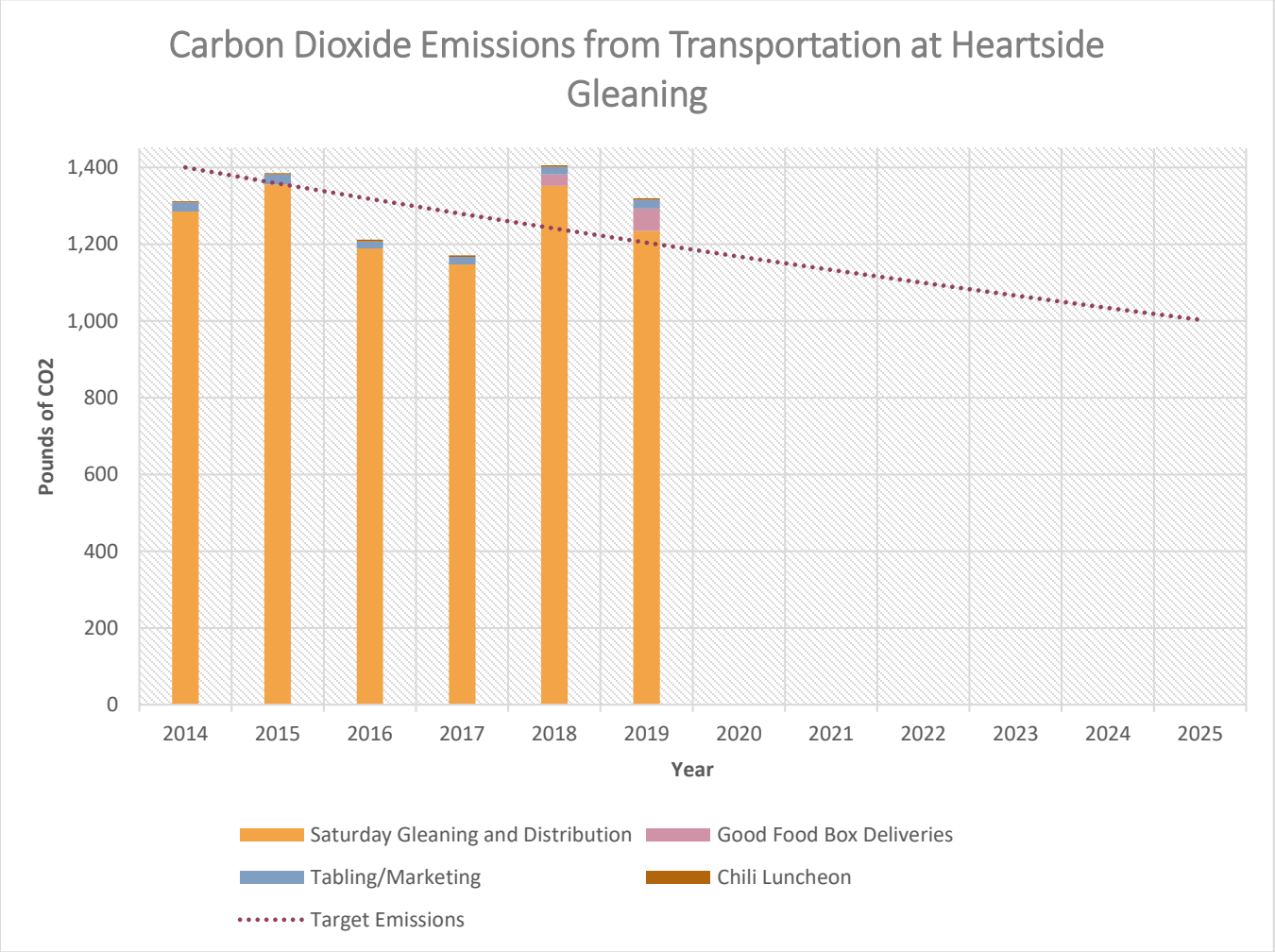
- Partner with other organizations who already provide similar classes, or with organizations who would like to provide similar classes
- Market to community members who would be the most interested and benefit the most from these classes

REPORTING METRICS OF SIGNIFICANT ASPECTS

Significant Aspect #1 – Oil/Gasoline Consumption

Objective and Target: Decrease our CO_2 emissions produced by 3% each year by 2025

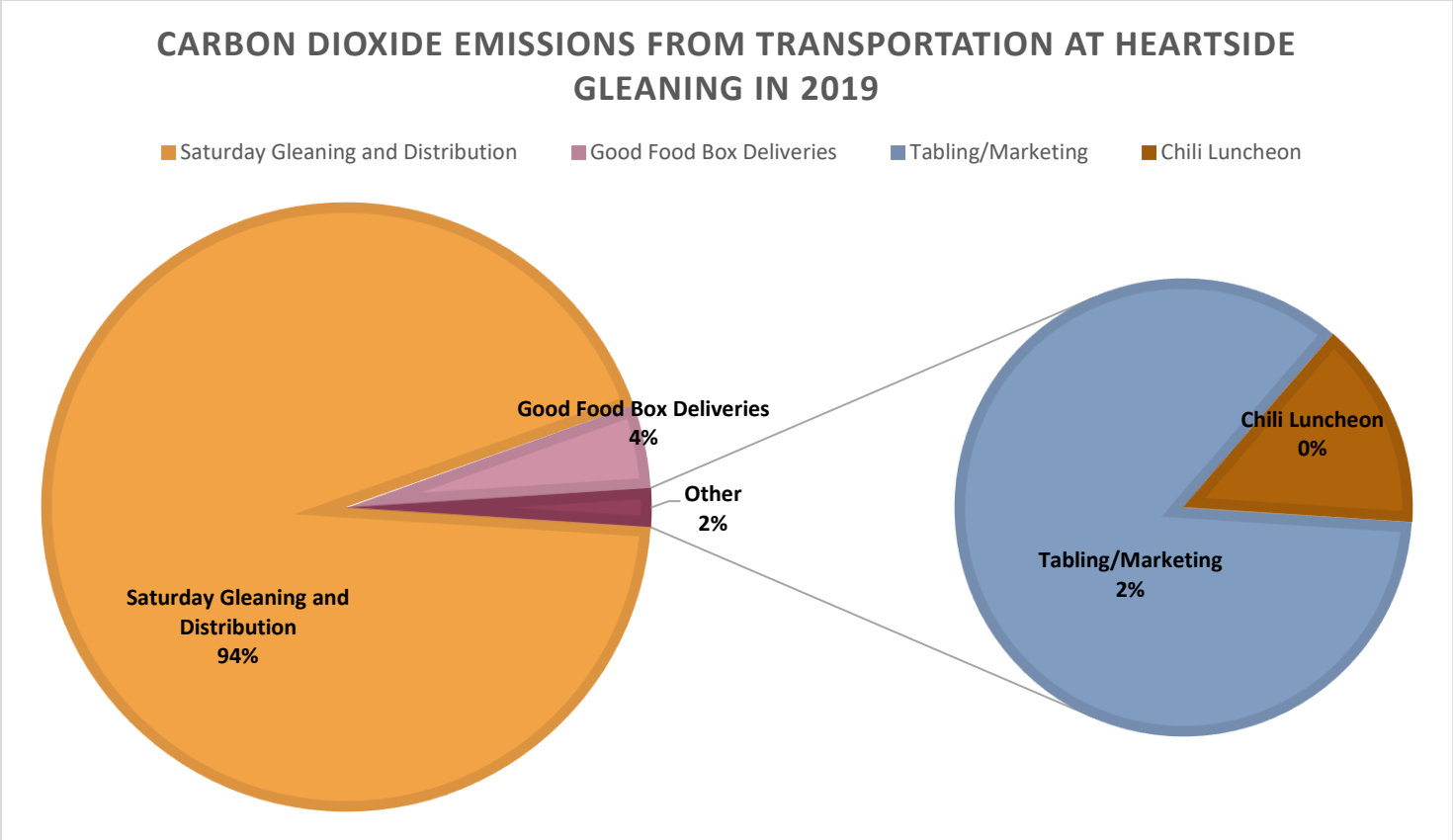
Data Table 1:



Summary of Data Table 1:

In our first data table, we've calculated the amount of CO_2 we produce as an organization based on miles driven throughout the gleaning season. The amount of CO_2 is measured in pounds, and we split the amount by operation so it's clear to see which operations emit the most CO_2 and which emit the least. Our Saturday gleaning produces the most emissions due to miles driven by our borrowed truck from Buist Community Assistance Center in Byron Center, in addition to at least two cars transporting volunteers. This table gives us insight on where we should focus our efforts to achieve our proposed objectives and targets.

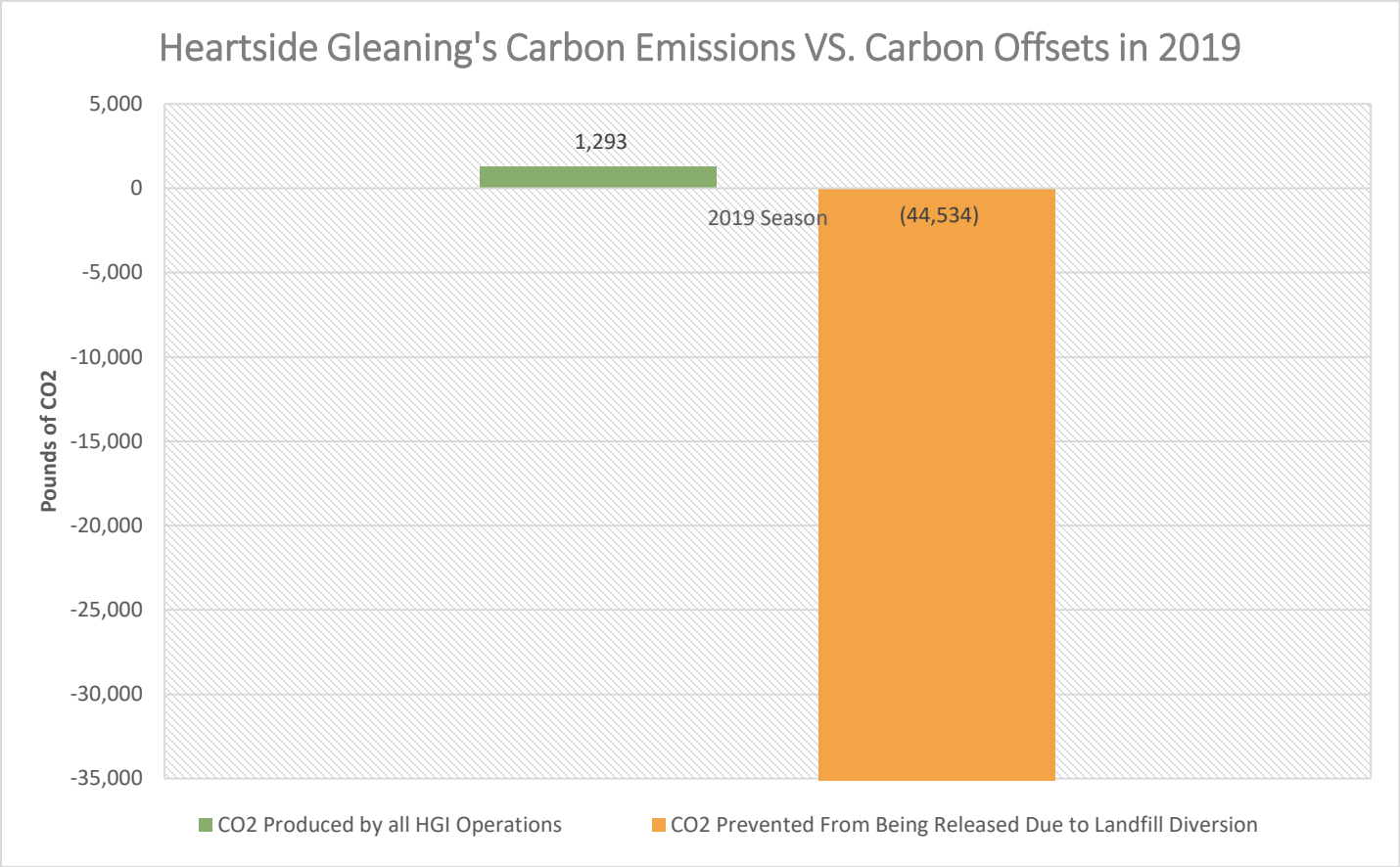
Data Table 2:



Summary of Data Table 2:

This data table is an extension of the information found in data table 1. Data table 2 takes the CO_2 emissions from the 2019 year in the previous graph, and formats them in a pie chart so we can see more clearly the percentages of which operations emit the most and least carbon dioxide. As it is also shown in data table 1, Saturday gleaning and distribution transportation makes up the most of our carbon emissions, while the chili luncheon transportation produces the least.

Data Table 3:



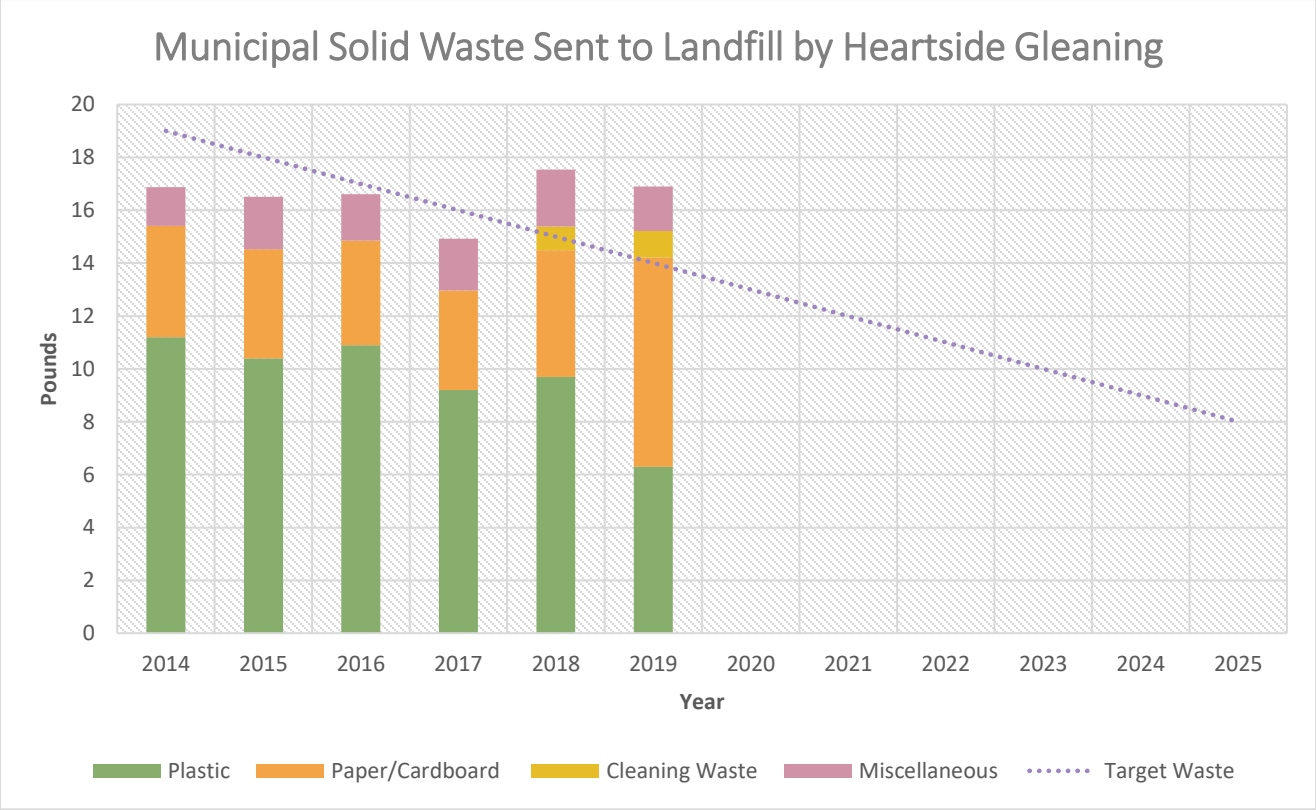
Summary of Data Table 3:

In this column chart, we have taken the total amount of CO_2 produced by Heartside Gleaning operations in the 2019 season (including Saturday gleaning, GFB deliveries, tabling, and the chili luncheon), and compared it to the total amount of CO_2 produced by 23,439 pounds of produce if it were sent to a landfill. However, we made this value negative since we redistributed this exact amount of produce, and therefore prevented it from heading to a landfill. This means that as an organization, we divert almost 35 times the amount of CO_2 that we produce. That's awesome! This also makes us carbon negative organization, meaning we have a net zero carbon footprint.

Significant Aspect #2 – Municipal Solid Waste Sent to Landfill

Objective and Target: Decrease our amount of municipal solid waste sent to landfill by 1 pound each year until 2025

Data Table 4:



Summary of Data Table 4:

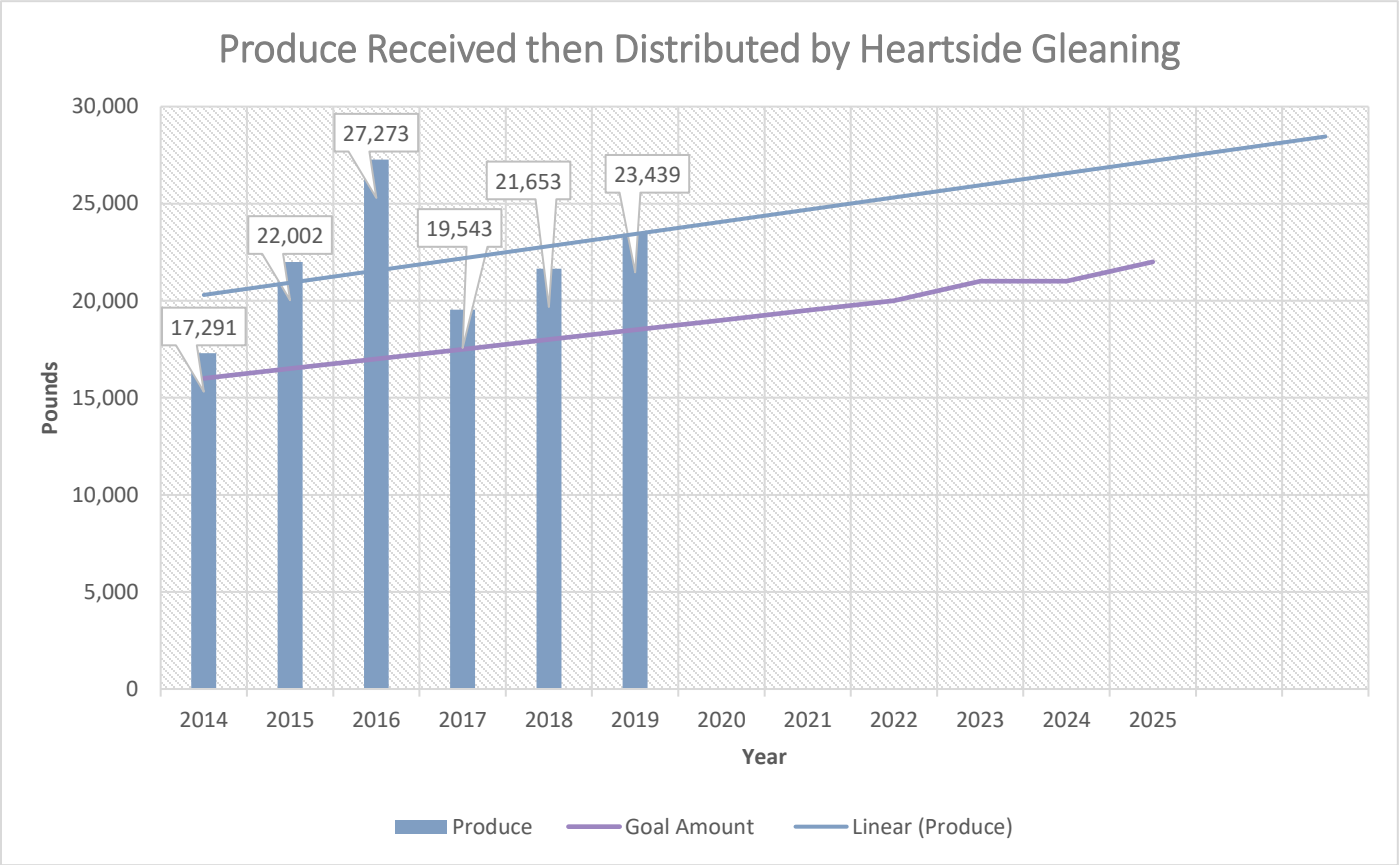
This graph represents the amount of municipal solid waste Heartside Gleaning produces through all of its operations. We have sorted it by "type" of waste to make it easier to see where we can focus our efforts to reduce our waste sent to landfill. Plastic waste includes the plastic water bottles we use to hydrate volunteers, and the plastic bags we pass out to our produce recipients. We are operating under the assumption that our recipients will throw the bags away once they are done using them. Plastic waste does not, however, include our plastic produce crates that we receive second-hand and reuse each year, because they are not sent to landfill. In the case we would discard of any crate(s), we would first send them along to a farm or the farmer's market to reuse. In the case of a broken, unusable, or nonrecyclable crate, we would then dispose of it to the trash where it would be considered "plastic waste." Paper/cardboard waste includes the boxes we receive from farmers, and the boxed water containers we implemented this year in 2019. Cleaning waste includes Clorox wipes and other related items. Lastly, miscellaneous includes items that are hard to categorize, including tape, and items related to the chili luncheon. This would include disposable items such as plastic food packaging, and food scraps that we were unable to recycle after the chili luncheon.

Significant Aspect #3 – Produce Donations

Objective and Target #1: Increase the weight of produce received and distributed to neighbors and partners by 3% each year until 2025

Objective and Target #2: Increase the amount of recipient agencies we partner with by one agency each year until 2025

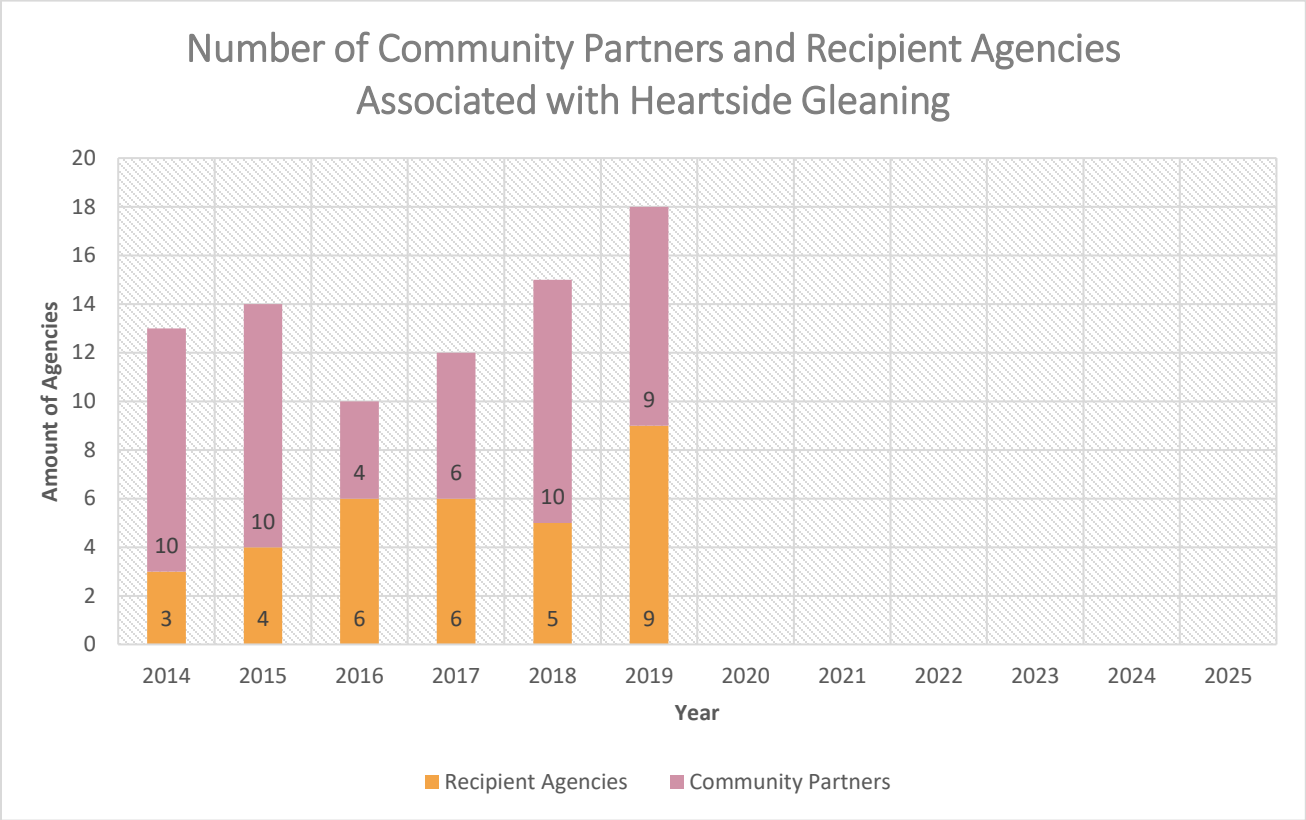
Data Table 5:



Summary of Data Table 5:

This table presents the amount of produce in pounds we have gleaned each year since we started in 2014. The amount has been steady throughout the years, but we would always like to receive as much as possible so we can 1) Provide as many nourishing meals as possible, and 2) Divert the maximum amount of food waste from landfill. Gleaning more pounds of produce would both improve the lives of our community members, and then reduce our overall carbon footprint and prevent waste sent to landfill. However, this is a challenging metric to control due to dynamics of different farms, and the weather during the growing season. For this reason, it is important for us to have a goal that is gradual in nature, and to include additional objectives and targets that don't correlate with the amount of produce we receive.

Data Table 6:



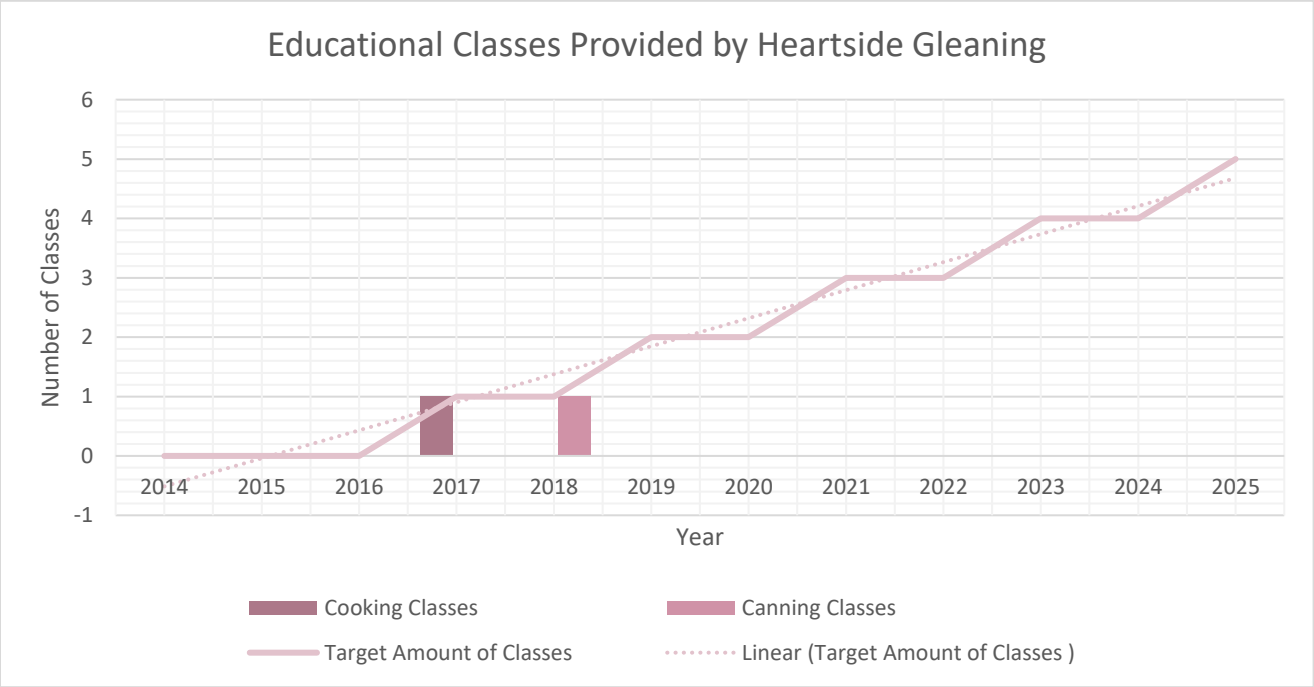
Summary of Data Table 6:

In this table, we are showing the number of community partners and recipient agencies Heartside Gleaning has worked with each year since 2014. It's always nice to have help with such a big project, and it's even better to have agencies who support us and would like to receive the produce we accept, so we would always love to have more community partners and more recipient agencies. It's important for us to have organizations that can use the produce we receive to better the health of the community.

Significant Aspect # 4 – Educational Classes

Objective and Target: Increase the amount of available cooking and canning classes by one class each year until 2025

Data Table 7:



Summary of Data Table 7:

In this data table, we have presented the number of educational classes Heartside Gleaning has provided each year since 2014. We find these classes to be very important to our community members, and for the sustainability of our organization and our community. The information from these free classes can be passed on for generations, and ultimately create a healthier and more holistic community in the future. We would love to eventually see at least one educational class being provided each season (winter, spring, summer, fall), therefore ideally four each year.

CONCLUSION

Overall, Heartside Gleaning is an organization that does more good for its community than it does harm. As a Heartside community volunteer-based organization with a net negative carbon footprint, we don't have a specific unfavorable externality that we should immediately manage. However, we firmly believe that even if we are succeeding, we can always improve. Therefore, we created our future goals to focus on a continuous improvement in social and environmental sustainability throughout the years. We want to mold and change into whatever is best for our community members and for our environment as the work for this valuable organization develops even further.

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