

Gallatin Valley Food Bank

Case Study | May 2024 - August 2024

Conducted By:

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Company Background

Established in 1982 the Gallatin Valley Food Bank (GVFB) is a program of the Food and Nutrition Department of the HRDC, located in Bozeman, Montana, whose mission is to provide resources to “improve food security throughout Southwest Montana (GVFB)”. Operating in their new facility titled, “Market Place”, the HRDC and food bank offer a range of services including three food bank distribution sites, the Fork and Spoon and Mighty Spork pay-as-you-go meal services, a summer lunch program, a Healthy KidsPack initiative, a Senior Grocery Program, and various food rescue operations.

During the last fiscal year, from July 1, 2022, to June 30, 2023, the GVFB and the HRDC distributed approximately 1,811,331 pounds of food through their three food bank locations, served 34,495 hot meals with the Fork & Spoon and the Mighty Spork food truck, and provided 42,447 Summer meals or KidsPacks to children in Southwest Montana.



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Project Background

Due to the versatility of the GVFB programs, there are many elements to consider when approaching the MTP2 project. The main initiatives identified in this case study include the Summer Lunch Program, the September gleaning operation, and the introduction of additional routes of food rescue.

The Summer Lunch Program offers meals to children in Southwest Montana during the summer months, ensuring they continue to receive nutritious food when school is not in session. Programming currently operates at an average efficiency level around 64%. This creates the overproduction of a range between 1,700-2,300 meals per month. This does not always result in direct waste, as many meal items are put to re-use, although the government reimburses solely the meals that have been served, implying a loss of revenue in the case a meal/meal-item is not consumed.

Gleaning involves the usage of volunteers to harvest surplus edible produce from farms and then reintroducing this food to the GVFB. By piloting gleaning initiatives at the HRDC, this program aims to achieve food rescue, food waste reduction, and introduce new sources of affordable fresh and local produce.

The GVFB regularly practices food rescue with about 30 varying grocery stores, food distributors, and restaurants in Bozeman. This project looks at implementing 10 new restaurant distributors to add to the food rescue route, aiming to reduce and redirect food waste in the Gallatin Valley.



06/18/24: Due to Summer Lunch overproduction levels, 6 lbs of blueberry muffins went uneaten and had to be composted.

Proposed Strategies for Implementation

Summer Lunch Program:

With strong results concluding inefficiencies related to overproduction levels, the proposal is to introduce alternative forecasting measures. Implementing a forecasting system at GVFB could significantly decrease inefficiencies related to the overproduction or underproduction of meals. This improvement would lead to optimized labor utilization, reduced costs associated with food loss and labor, and a decrease in food waste.

The proposed forecasting method involves the utilization of an Excel sheet that automates chart creation, offering a visual representation of monthly servings by location. This allows the forecaster to estimate weekly averages more accurately; basing judgment on maximums, and minimums, and compare with other site's production counts to ensure there are not multiple locations underproducing simultaneously. This forecasting method aims to increase efficiencies by 7 - 10%, the equivalent of approximately 1,008 fewer meal productions over the summer and about \$4,128 saved.

Gleaning:

The Gallatin Valley currently accounts for approximately 21 acres of orchards (Haynes et al., 2021). Additionally, global predictions have found that about 14% of food is lost during the phase between harvest and retail (FAO, 2019). Therefore, we can predict that between two and three acres of edible orchard produce are being wasted in the Gallatin Valley annually.

By launching an on-farm food rescue campaign projected for September of 2024, and partnering with Lockhorn Cider Farms, the effort will gather a diverse group of volunteers to support the project. With the use of outreach materials to investigate interested volunteers and additional gleaning providers, the goal is to capture individuals to partner with for the following years. Upon compilation of a volunteer task force, the GVFB aims to glean approximately one acre of apples. This effort will reduce carbon emissions and water waste related to on-farm food waste and introduce fresh and local produce within the Gallatin Valley Food Bank.

Restaurant Food Rescue:

By contacting over 50 restaurants in Bozeman and the surrounding area, the GVFB will present outreach materials to explore opportunities for collecting edible food that might otherwise be discarded. The goal is to secure approximately 10 new partners for collaboration in the coming year. With current partners donating about 213 pounds of food per month, adding 10 new restaurants would result in an estimated 25,560 pounds of additional food presented to the food bank annually, while also addressing a reduction in food waste.

Results

Recommended P2 Actions	\$		Annual Reductions		Was the Recommendation Implemented at This Facility?			Case Study Developed (Y or leave blank)
	One-time Cost to Implement (\$)	Annual Savings from P2 Action (\$)	MTCO _{2e} Emissions (metric tons)	Water Use (gal.)	Y or N	If yes, fiscal year implemented (Oct. 1 - Sept. 30)	Comments	
Improve Summer Lunch Forecasting Efficiencies by 7-10% (approx. 1008 meals) <i>Avg. 1,200 per week * 12 weeks</i>	-	\$4,127.76 <i>Source: Cynthia Long, 2024</i>	1.512 MTCO _{2e} <i>Source: Stern, 2022</i>	14,645.69 gal <i>Source: Stern, 2022</i>	Yes	July 1, 2024 - June 30, 2025	Testing Began July 2024. Full Implementation June 2025	Y
Glean 1 Acre of Apples (Approx. 6,600 lbs) <i>Source: USDA, 2019</i>	-	\$6,534 <i>Source: USDA, 2024</i>	1.200 MTCO _{2e} <i>Source: CO2 Everthing</i>	660,430.13 gal <i>Source: Your Water Footprint, 2014</i>	Yes	July 1, 2024 - June 30, 2025	Projected for date in September	Y
Introduce 10 New Restaurant Partners to the Restaurant Food Rescue Program (25,560 lbs) <i>Partner Avg. 213 lbs per month</i>	-	\$77,191 <i>Source: Feeding America</i>	78.47 MTCO _{2e} <i>Source: Takacs et al., 2022</i>	371,373.07 gal <i>Source: Stern, 2022</i>	Yes	July 1, 2024 - June 30, 2025	Projected for date in September	Y