

EDIBLE FOOD RESCUE CAPACITY ASSESSMENT

Prepared for
The Cities of Arcata & Eureka CA



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Conducted by
ZERO WASTE HUMBOLDT
and
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Special Thanks to Survey Participants:

Food for People, Eureka Rescue Mission, Arcata House, Salvation Army Eureka, Betty Chinn Foundation, Arcata Presbyterian Church, Society of St. Vincent de Paul, Trinity Baptist Church, Humboldt State University Oh-SNAP!, Raven Project, Arcata First Baptist Church, HSU Newman Center, Tri-County Independent Living

Costco Wholesale, Winco Foods, Cash & Carry, The Northcoast Co-op, Eureka Natural Foods, Murphy's Market, Ray's Foodplace, Safeway, Wildberries Marketplace

Varsity Ice Cream Company, Flowers Baking Co. of Modesto

Albee & Buck Candies, Humboldt Bay Clam Chowder Co, Riley Family Farm, Humboldt Bay Coffee Co, Lost Coast Roast, Tofu Shop, Cypress Grove Chevre, Panaderia El Pueblo Market, Wild Planet Foods

Café Brio, El Chipotle Mexican Food, Humbrews, McIntosh Farm Country Store, Oriental Buffet, Paul's Live From New York Pizza, Pepper's, Renata's Creperie, Round Table Pizza, Salt, Slice of Humboldt Pie, Subway Valley West, The Pub, Sushi Spot Arcata, Toni's Drive in, T's Café, Westside Pizza, La Trattoria, Bencharong Thai House, Smug's Pizza, Nori, Kebab Café, Valley Azteca Mexican Restaurant, Sushi Tao, Obento

Porter Street BBQ, Adel's Restaurant, Village Pantry Restaurant, In-N-Out Burgers, Mod Pizza, Applebee's, Raliberto's, McDonald's, Tres Chiles Picosos, Ingomar Club, Oberon Grill, Five Eleven, Chapala Café, Donut Mill, AA Bar & Grill, Lost Coast Brewery & Café, Denny's, Amiga's, Sammy's BBQ & Catering, Pachanga Mexicana, Fat Cat Bakery, Gabriel's, Bayfront Restaurant, Café Waterfront, The Diver Bar & Grill, The Jerk Kitchen, Happy Donuts, Siam Orchid Thai Cuisine, Stars Hamburgers, Ecos Café, Cocina Mariposa, Golden Harvest Café, Shamus T. Bones, Fresh & Fruity, Los Gallos Taqueria, Bless My Soul Catering

Red Lion Hotel Eureka & Comfort Inn Eureka

Mad River Community Hospital

Eureka City Schools, Freshwater Charter School, Alder Grove Charter School, Arcata High School, Fuente Nueva Charter School, Trillium Charter School, Pacific Union School

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EXECUTIVE SUMMARY

There is a documented need for additional food access throughout Humboldt County, part of which could be addressed through increased recovery of edible food. CA SB 1383 (2016) or the Short-Lived Climate Pollutant Reduction Strategy requires 75% reduction in statewide disposal of organic waste by 2025, with a goal that no less than 20% of edible food be recovered for human consumption. This Assessment was conducted to understand the status of edible food recovery systems and the potential for additional recovery in the Cities of Arcata and Eureka.

The surveys and data collection tools employed during the Assessment were designed based on CalRecycle SB 1383 Guidance documents, model survey language, and compliance & reporting requirements. SB 1383 Tier 1 and Tier 2 regulated entities in Arcata and Eureka are shown in Table 1. In general, Tier 1 grocery stores and supermarkets in Arcata and Eureka (with one exception) have little edible food that is not being recovered by the nine food recovery organizations. Tier 1 Food distributors and wholesale food vendors in Arcata and Eureka have established relationships with food recovery organizations and/or directly donate surplus food to employees. The majority of the Arcata and Eureka restaurants fall below the SB 1383 Tier 2 compliance thresholds but are within the threshold for regulated entities under AB 1826. Survey interviews indicate that many restaurants and schools have shifted to more frequent purchasing to reduce waste and lost revenues.

Local food recovery organizations overwhelmingly expressed a desire to expand food recovery in Arcata and Eureka. Humboldt County has a highly effective food bank - Food for People - with an extended network of food recovery organizations. Food recovery organizations' expansion is limited by lack of basic infrastructure: sufficient cold and dry storage space, a lack of refrigerated trucks, and need for the paid staff to manage coordination, collection, and record keeping.

A 20% increase in edible food recovery – or 77 tons per year (Arcata & Eureka combined) – would be achievable if Food for People and the network of food recovery organizations are able to double capacity. The estimated SB 1383 target increase in edible food recovery for each city is shown in Table 2. Doubling the edible food recovered by the FFP network would result in approximately 186 tons per year recovered, which only equates to 27% of the potentially recoverable edible food estimated to be in the Arcata and Eureka waste streams. To achieve SB 1383 compliance, Arcata and Eureka will need to work with the existing food recovery network to find creative solutions to the challenges identified in this Assessment.

Potential increase in edible food recovery may be found by conducting outreach to entities that were not able to respond to the survey, and working with corporate entities (i.e., franchise restaurants, grocery stores, and wholesale food vendors) to establish policies that maximize locally recovered edible food. Businesses with buffet food service, catered events, food suppliers for events held in local venues are other potential sources of recoverable food waste.

Table 1 Regulated entities in Arcata and Eureka

SB 1383 Regulated Entities in Arcata			
Food Generators	Total # entities	Total # SB 1383 mandated entities	# Entities known to be participating in some form of edible food donation*
Tier 1			
Grocery Stores & Supermarkets	6	6	6
Food Distributors	0	0	0
Wholesale Food Vendors	5	5	3
Tier 2			
Restaurants	47	3	1
Hotels	9	0	1
Health Facilities	2	0	1
Local Education Agencies	13	13	13
SB 1383 Regulated Entities in Eureka			
Food Generators	Total # entities	Total # SB 1383 mandated entities	# Entities known to be participating in some form of edible food donation*
Tier 1			
Grocery Stores & Supermarkets	7	7	7
Food Distributors	6	3	2
Wholesale Food Vendors	15	15	6
Tier 2			
Restaurants	94	12	15
Hotels	27	0	1
Health Facilities	16	0	0
Local Education Agencies	12	11	12

Table 2 Comparison of food recovery targets for Arcata and Eureka

SB 1383 20% Target for increase in Edible Food Recovery by 2025		
Component of waste stream	Arcata	Eureka
	Ton / year increase in Edible Food Recovery	Ton / year increase in Edible Food Recovery
Potentially Donatable Food Waste	18	59

INTRODUCTION

CA SB 1383 (2016) or the Short-Lived Climate Pollutant Reduction Strategy requires 75% reduction in statewide disposal of organic waste by 2025, with a goal that no less than 20% of edible food be recovered for human consumption. The purpose of the Assessment is to understand the status of edible food recovery systems in the Cities of Arcata and Eureka so that these cities can improve food recovery services and achieve compliance with the requirements of CA SB 1383. Underlying goals inherent to this work are to strengthen climate action through reducing waste-related greenhouse gas emissions and increase local food security.

Humboldt State University's California Center for Rural Policy (CCRP) has been working on local food security issues as part of its mission to improve the lives of rural people in California since 2005. In 2009, CCRP formed the Humboldt Food Policy Council (HFPC) which envisions "a sustainable food system that provides affordable and accessible foods for all". The HFPC membership is made up of a diverse group of food systems stakeholders including grocers, food producers, food banks, elected officials, and concerned citizens. The HFPC has developed two foundational documents in regards to food systems and food security in Humboldt County: the 2010 Humboldt County Community Food Assessment, and the 2018 Humboldt Food Access and Pantry Service Report¹.

According to the CCRP, food insecurity is defined as households that have "encountered difficulty at some time in the past year providing enough food for all household members". Humboldt County residents face a high cost of living, housing shortages, and low wages making food security a struggle for many community members. The CCRP researchers found that rate of food insecurity in Humboldt County is estimated to be 18% - higher than the state and national averages of 12%. The authors found that the higher prevalence of food insecurity among rural, isolated counties is consistent with USDA findings of increased food insecurity in rural areas when compared to the national level (15% vs. 12.3%).

The survey data further revealed that multiple factors contribute to food insecurity such as being a single parent with children – especially single mothers, race disparities, ethnicity, housing status (i.e., renters vs. homeowners), income, and occupation. Further, the CCRP researchers found that food insecurity is associated with a number of health disorders including but not limited to: stress, depression, anxiety, loss of sleep, Type-2 diabetes, obesity²; and among children, the effects of food insecurity can cause "psychosocial difficulties" such as difficulty getting along with others, making friends, and decreases in motivation and responsiveness to their environments.

Given the known impacts of food insecurity to health and wellness outcomes for the community, the need to maximize edible food recovery cannot be overstated. The following report contains the results of surveys conducted with food recovery organizations and food generators as well as an assessment of the potential to increase food recovery in the cities of Arcata and Eureka.

¹ The 2018 CCRP report is based on the results from a 2017 Food Access and Pantry Services survey that was initiated by Food for People (Humboldt County's Food Bank) to assess food security and evaluate services at its various pantry sites across the County.

² The 2018 CCRP report cites multiple studies which show that household food insecurity can cause a dependence on inexpensive processed foods which are often high-calorie foods mainly comprised of grains, fats, and sugar. Excessive consumption of these foods compounded by a lack of nutrient-rich perishable foods can lead to poor health and chronic disease.

METHODS

The Edible Food Recovery Assessment was conducted in the cities of Arcata and Eureka only. The surveys and data collection tools were designed based on CalRecycle SB 1383 Guidance documents, model survey language, and compliance & reporting requirements. Survey questions were adapted to fit Humboldt County based on the known community food recovery landscape, as well as previous experience with food waste reduction outreach and education in the Eureka and Arcata commercial sectors. Two surveys were developed, one for food recovery organizations and one for food generators. The food generator survey was translated into Spanish. Tier 1 and Tier 2 generators were identified using city-provided lists of business license holders for restaurants, grocery stores/supermarkets, and food manufacturers/distributors. Local knowledge and google searches were used to complete these lists as well as identify local education agencies, hotels, health facilities, and State agencies. Google Earth surveys were used to measure relative floor area of restaurants and grocery stores to identify businesses within the SB 1383 compliance threshold. Solid waste collection service levels were used to identify businesses that fall within the updated AB 1826 compliance threshold.

Although many Tier 2 food generators did not fall under the SB 1383 mandated compliance threshold, the survey team decided to sample from all Tier 1 and Tier 2 food generators because most of these entities fall within the AB 1826 threshold ($>2\text{yd}^3/\text{week}$ combined solid waste and recycling service), and edible food donation is a way to comply with both laws. This was also an effort to conduct a thorough outreach and education campaign to notifying businesses of current California waste reduction laws as well as gain feedback from a broad range of business types and sizes. Food generators excluded from the survey are: to-go only restaurants, food trucks, coffee shops, ice cream and specialty food shops, and bars. Additionally, 18 restaurants were found to be temporarily or permanently closed.

As food recovery organizations are the heart of this effort, each organization was contacted by phone, and once the project was briefly explained and the person in charge of food donation services identified, an appointment was set up to conduct the survey. Each edible food recovery organization survey required 20 minutes to over 1 hour to conduct – solely based on the respondent's interest in talking about the current operations and needs. Every food recovery organization identified provided a detailed survey response in the interest of increasing public understanding of the value of the services they provide, as well as the challenges they face in continuing to strengthen food security in our communities.

The food generator survey was designed to be conducted in 5 minutes in an effort to encourage maximum participation. All Tier 1 and Tier 2 entities (regardless of contact method) were given either a verbal and/or written explanation of the Edible Food Recovery Survey purpose, and SB 1383 requirements and goals. Grocery stores/supermarkets were surveyed in-person as the number of these entities is low (13), and they are also known to have large quantities of donatable food on a regular basis. Furthermore, it is well documented that Food for People and other food recovery organizations have already established gleaning arrangements with these entities. Due to a variety of interest and experience in food recovery by grocery stores, these interviews ranged from five minutes to 45 minutes.

Wholesale food vendors and food distributors were contacted via phone interviews. Data gathering on health care agencies, state agencies, and hotels was conducted through a combination of phone calls and in-person surveys. Local education agencies were contacted by phone and email. The project

purpose and information about SB 1383 was provided via a detailed message if no one was reached directly.

Restaurants which make up the largest Tier group (141 total) were conducted in-person, by telephone, email, and via mail-in survey packet drop off. Respondents of in-person restaurant interviews ranged from an experienced staff person to the owner. After the interview, the interviewee was given a 1-page leave behind. This leave-behind contained information about SB 1383 and AB 1826 organic waste reduction laws as well as information about State and Federal food donor protection laws.

When no one was available to immediately participate, survey packets were delivered to either a manager or business owner who was given a brief introduction to the project, survey content, and SB 1383 requirements. The drop-off survey packet also included a stamped, pre-addressed envelope, and the 1-page leave-behind.

Estimates of potential recoverable food were obtained from the 2021 HWMA Waste Characterization study which, in foreseeing the requirements of SB 1383, includes Potentially Donatable Food as a material category. Because these estimates were obtained from direct data collection (waste sorting) no other metrics or estimation methods were used. Estimates from the 2021 waste characterization study were compared to estimates provided by food generators. Food recovery capacity was evaluated based on survey responses.

SURVEY RESPONSE RATES

The survey response rates for most groups were higher than expected due to the challenges encountered while conducting a survey during the Covid-19 pandemic. Challenges included: partial/temporary business shutdowns, employee shortages, and intensified management time constraints due to the adaptations required to protect health and safety during the pandemic. The survey / outreach effort and response rates are shown in Table 3 below. In-person surveys were found to be far more effective than any other outreach method. Phone surveys worked well for the food distributors, wholesale food vendors, and schools as they are accustomed to conducting business by phone. Overall, most locally-owned businesses were willing to participate in the survey when the appropriate person could be reached on the first call or in-person, and the project quickly explained. In a few cases, some food generators were too busy to respond, or declined to participate. Response rate fell to 18% for returned phone messages, and only a small portion (13%) of the survey packets handed out to were returned. With the exception of Health Facilities, survey responses were above the desired 30% response rate for a mixed-mode survey (Dillman, Smyth & Christian 2014).

Table 3: Edible Food Recovery Survey response rates

Entities Surveyed	Total # attempted surveys	Total # completed surveys	Total response rate
Tier 1			
Grocery stores/supermarkets	13	11	85%
Food Distributors	3	2	67%
Wholesale Food Vendors	20	9	45%
Tier 2			
Restaurants Arcata	47	25	53%
Restaurants Eureka	94	36	38%
Hotels	5	2	40%
Health Facilities	5	1	20%
Local Education Agencies	25	15	60%
Food Recovery Organizations	13	13	100%

*Note: No food distributors were found in either jurisdiction, nor were there any State agencies with cafeterias. Large venues & events were not included in the survey due to the closure of most events during 2021.

LIMITATIONS OF ASSESSMENT

The following limitations to the Assessment were identified:

1. Business license lists were found to be incomplete; businesses were missing or closed; complete Master List was compiled through institutional knowledge and investigation.
2. Challenges obtaining restaurant and grocery store / supermarket floor area data (ft²) needed to identify SB 1383 mandated businesses.
3. Lists of garbage service levels did not contain information for many Tier 1 and Tier 2 generators, as such quantitative estimates of potential edible food from each of these entities was not feasible. However, given that the SB 1383 goal is to increase recovery of edible food in general, addressing the question of “where should the Cities focus their efforts in increasing edible food recovery?” became the focus of the assessment.
4. Inability of generators to accurately estimate lbs. of edible food disposed.
5. Health facilities were difficult to reach due to a lack of availability during the survey period; a direct result of Covid-19.
6. Schools were very difficult to reach due to the timing of the project; key school staff were unavailable due to adaptation of new (and rapidly changing) operational requirements related to Covid-19 and the transition back to in-person classrooms.

LOCAL HEALTH DEPARTMENT GUIDELINES

Local health and safety guidelines that must be followed for food donations are as follows:

1. All food must be from an approved source (CA Retail Food Code Sections 113735, 114021).
2. Food must be protected from contamination or adulteration at all times. Items should be covered and kept up off the ground and floor (CA Retail Food Code 113980).
3. Food shall be kept cool (below 41 F) or hot (above 135 F). Foods held at ambient temperatures (“Time as Public Health Control” foods) must be discarded, consumed, or composted after 4 hours. In general, food held using time as public health control cannot be repurposed (CA Retail Food Code Sections 113996, 114000).
4. All persons should be in good health when preparing or serving food for others and the public.

Edible Food Donor Liability Protection

In California, there many acts and civil codes that prevent food donors from legal action as a result of injury or harm caused by a food donation. A summary of legal protections and health & safety requirements (listed above) should be provided to all food generators in order to maximize recovery and prevent confusion over potential legal consequences of donating food.

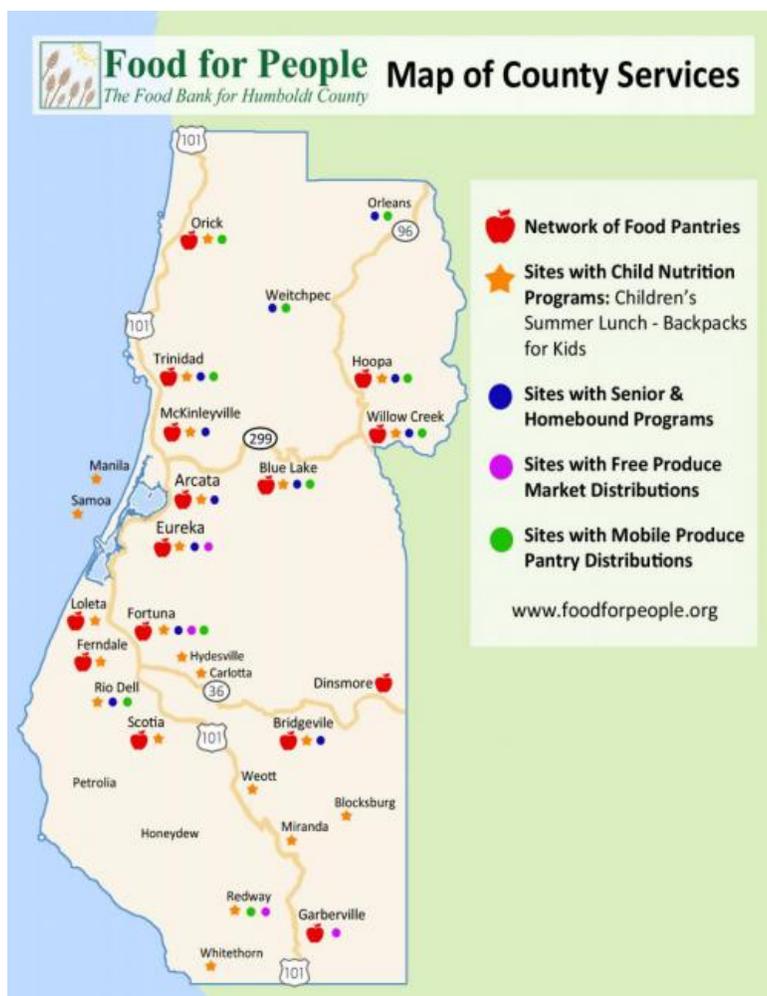
The key laws protecting edible food donors from liability are:

1. The Federal Bill Emerson Good Samaritan Food Donation Act, signed in 1996, (The Good Samaritan Act) protects individuals who donate food and grocery products to non-profit organizations. This act standardized donor liability exposure across the country, and protected individuals who make donations in good faith that later cause harm to the recipient.
2. The California Good Samaritan Food Donation Act (AB 1219), passed in 2017, expanded protections against liability for food donors in California. Specifically, it protects donors that have made a good faith evaluation that donated food is safe for consumption, including past-date foods that are fit for human consumption.

FOOD RECOVERY ORGANIZATIONS IN THE ARCATA / EUREKA JURISDICTIONS

Established in 1979, Food for People is the principal food recovery and food distribution organization in Humboldt County. Food for People operates 17 food pantries and an expansive network serving 10% of Humboldt County residents. The organization has an active gleaning program with grocery stores/supermarkets, warehouse stores, wholesale food vendors, and food distributors. Food for People also maintains partnerships and collaborations with all other food recovery organizations surveyed. In 2010, Food for People (FFP) developed a “Choice Pantry” system to reduce the amount of recovered or donated food that ends up as waste. This system involves organizing the food pantry like a grocery store where clients can choose what they want instead of receiving a pre-boxed selection of foods - some of which may go un-eaten and end up as waste. The following figure shows the extent of FFP’s food access support services in Humboldt County.

Figure 1: Food for People Network of Food Pantry Services in Humboldt County



The cities of Arcata and Eureka are served by 12 food distribution organizations, nine (9) of which also participate in food recovery activities. All food recovery organizations surveyed stated that the level of need for food assistance in Humboldt County is constant³. All organizations reported that they have never turned anyone away due to lack of food; it is important to note that all organizations rely on purchasing additional food (and therefore monetary donations) to meet the full level of need.

All food distribution organizations reported that food rarely goes uneaten, and that the more they receive, the more they will give out. Additionally, there is an extensive network amongst the food recovery/food distribution organizations that allows them to share any excess food amongst one another to prevent food from being unutilized. Excess food is also donated to other County programs such as Safe & Sober recovery programs and Teen Challenge. Some food recovery

/distribution programs have arrangements to give any uneaten (pre-consumer) food to local pig farms. A list of food recovery organizations and the types of foods accepted is shown in Table 4.

³ Survey responses also indicate that there is a strong need in all communities, including more remote areas such as Southern Humboldt, Weitchpec, and Eastern Humboldt County.

Table 4: Food Recovery Organizations and Types of Foods Accepted

Food Recovery Organizations Serving Arcata & Eureka

Food Rescue Organization	Phone Number	Types of Food Accepted							
		Fresh Produce	Shelf-Stable/Non-perishable Foods	Fresh Grocery Requiring Refrigeration	Frozen Grocery Requiring Freezing	Baked Goods	Frozen Prepared Foods	Cold Prepared Foods	Hot Prepared Foods
Food For People 2112 Broadway St Eureka	707-445-3166	✓	✓	✓	✓	✓	✓	✓	✓
Eureka Rescue Mission 110 2nd St Eureka	707-445-3787	✓	✓	✓	✓	✓		✓	✓
Arcata House 1005 11th St Arcata	707-822-4528	✓	✓	✓	✓	✓	✓	✓	✓
Salvation Army 2123 Tydd St Eureka	707-442-6475	✓	✓	✓	✓	✓	✓	✓	✓
Betty Chin Foundation* 133 7th St Eureka	707-407-3833	✓	✓	✓	✓	✓	✓	✓	
Arcata Presbyterian Church 670 11 th St Arcata	707-822-1321	✓	✓	✓	✓	✓	✓		
Society of St. Vincent de Paul 35 3 rd St Eureka	707-445-9588	✓	✓	✓	✓	✓	✓		
Trinity Baptist Church** 2450 Alliance Rd Eureka	707-822-7668	✓	✓	✓	✓	✓			
HSU–OH SNAP!*** 1 Harpst St Arcata	707-826-4556	✓	✓			✓		✓	✓

* An established relationship is required to accept donations in order to assure food safety standards are adhered to.

** Trinity Baptist Church has a limited ability to accept fresh or frozen grocery due to size of onsite cooling units.

*** Currently only accepts food from HSU Dining Services and catered events.

† The Newman Center, Raven Project, and Arcata First Baptist Church are not included in this list as they only accept non-perishable foods that primarily originate from private donations.

Edible Food Recovery Service Areas & Method of Collection

The following table shows the service areas and collection methods for the nine food recovery organizations operating in the Arcata and Eureka jurisdictions.

Table 5: Jurisdictions served by Arcata and Eureka food recovery organizations

Food Rescue Organization	Type of Organization	Jurisdictions Served	Donation Collection Method
Food for People	FFP is an "umbrella" Food Bank providing Food Pantry services, and Nonprofit Food Recovery services throughout the County.	Arcata and Eureka mainly; FFP operates a pantry network throughout the County	Paid drivers, Donor deliveries
Eureka Rescue Mission Men's / Women's Shelters	Non-profit Food Recovery Service	Arcata and Eureka mainly	Paid drivers
Arcata House	Food Pantry, Nonprofit Food Recovery Service	Arcata, Eureka, McKinleyville	Paid drivers, Donor deliveries
Salvation Army Eureka	Faith-based Organization with Food Distribution Program	Arcata, Eureka	Paid drivers
Society of St. Vincent de Paul	Food Pantry / Non-profit food recovery service	Eureka	Paid drivers
Betty Chinn Foundation	Homeless Services	Any city	Paid drivers, Donor deliveries
Arcata Presbyterian Church	Faith-based Organization with Food Distribution Program	Arcata, Eureka	Volunteer drivers
Trinity Baptist Church	Food pantry / Faith-based Organization with Food Distribution Program	Arcata, Eureka, Blue Lake	Donor deliveries
HSU Oh SNAP!	Food Pantry	HSU only	Paid drivers

Quantity of Edible Food Currently Recovered (2020)

Food for People (FFP) and Oh Snap! are the only food recovery organizations that collect and maintain records on quantity of food rescued. **FFP reported 185,285lbs of food rescued from grocery stores in 2020**⁴. Arcata House shares gleaners and collection vehicles with FFP, and as such, does not maintain separate records (i.e., FFP maintains all records including the food collected by the Arcata House gleaner). Similarly, the Society of St. Vincent de Paul is partnered with FFP on gleaning and does not keep separate records.

While Oh Snap! provided a thorough survey response, they were not able to provide 2020 food recovery data as the campus closed due to Covid-19. While they expressed a willingness to provide previous 2019 data as a reference point, staff bandwidth is currently consumed with providing food recovery and distribution services to HSU students whilst navigating Covid-19 safety guidelines and a change in HSU dining services operators. Oh Snap! did note that they weigh all donations, and that anything that is not distributed in time is weighed before composting. Oh Snap! also noted that food reclamation is the smallest portion of the food they distribute.



A Food for People volunteer

The Salvation Army Eureka maintains monthly records of all donations including books, clothing, house wares, and food. Each item is recorded by the container it comes in or as the item itself (e.g., bags of spaghetti, cans of beans, # bagels, # books etc.). While these records are thorough, they do not separate out food from other items, nor recovered food from individual purchased donations. It is difficult to estimate the pounds of food recovery from this organization, although many of the repeated donations are from Starbucks, and therefore some amount of waste diversion from the landfills is certainly taking place through this organization.

*“We get food,
we use it.” –
Food Recovery
Organizations*

The remaining food recovery organizations reported that they maintain no records as they are too busy providing food recovery and distribution services to add weighing and record keeping to their daily duties. “We get food, we use it” was a common statement. Many organizations cited staffing shortages resulting in a heavy reliance on volunteer labor as a common issue that hampered any record keeping efforts.

Sources of Edible Food Recovery

The following table shows the current primary sources for edible food recovery in Arcata and Eureka. The most consistent sources of food recovery / food donations are from grocery stores/supermarkets, “big-box” warehouse stores (e.g., Costco, Target, Walmart), food producers (farmers), schools including HSU, and restaurants. Backyard gleaning is accepted by all organizations but is more seasonal in nature.

⁴ FFP also collected an additional 38,378lbs through the backyard gleaning (i.e., home gardens, orchards, small farmers) and farmer’s market gleaning programs. Gleaned foods would have otherwise been composted or decomposed naturally on the ground, and therefore do not constitute food that would otherwise ended up in the landfilled waste stream. Individual donations made up 217,270lbs of food that was distributed by FFP in 2020. These donations consist of purchased food, or food from pantries donated during holiday drives.

Table 6: Sources of Edible Food Recovery

Sources of Food Recovery in Arcata and Eureka

Food Recovery Organizations	Supermarkets & Grocery Stores	Big Box Warehouse Stores	Food Wholesales	Food Distributors	Restaurants	Hospitals	Events	K-12 Schools	Universities	Food Producers	Residential Backyard Gardens	Private Donations
Food for People	✓	✓	✓	✓				✓	✓	✓	✓	
Eureka Rescue Mission	✓	✓			✓			✓		✓	✓	✓
Arcata House	✓	✓	✓		✓				✓	✓	✓	
Salvation Army Eureka	✓				✓						✓	
Arcata Presbyterian Church											✓	
Society of St. Vincent de Paul	✓	✓				✓	✓	✓		✓	✓	
Trinity Baptist Church	✓										✓	✓
HSU - OH SNAP									✓		✓	✓

*The following organizations accept private donations only: Betty Chin Foundation, Raven Project, Arcata First Baptist Church, and the Newman Center.

Edible Food Donation Requirements

Several food recovery organizations stated a need to have an established relationship with food donors so that they can be assured of food quality. Donors are required to follow California food safety standards, box up or otherwise package food, and refrigerate or freeze in preparation for collection and drop-off. All food distribution organizations stated a common goal of serving their clients with dignity. As such, they do not want to serve bad food, and aim to provide a balanced diet that includes protein, fresh vegetables, and fruit. While there is some variation amongst organizations, there are some general requirements for donating surplus food to these organizations.

The following is a list of items not accepted for food recovery:

1. Spoiled foods
2. Non-perishable foods past 1 year expiration
3. Milk products 1-week past expiration
4. Rusty cans
5. Unsealed bulk foods
6. Home-canned goods

Food Recovery Capacity Available

All food recovery organizations with the exception of the Society of St. Vincent de Paul indicated that they could accept more donations than they currently receive based on the current level of demand for food services. All of these organizations are also able to add new donors into their collection routes. All expressed that they regularly re-distribute recovered / donated food they cannot use to others in the food distribution network, and therefore, there is no current monthly limit to their ability to accept more recovered food.



A Food for People Volunteer

There are, however, logistical limits to the potential expansion of food recovery capacity based on cold storage capacity available (i.e., refrigerators and freezer space needed to accept and store perishable foods), limited staff and vehicles available for conducting recovery from a large number of dispersed donors, and lack of refrigerated trucks to extend routes before returning to the on-site storage. Eventually, these limiting factors must be addressed so that the food recovery organizations can accept and re-distribute more food.

Food Recovery Infrastructure

Food recovery infrastructure varies by organization size and scope. The following is a list of equipment generally used by all organizations that offer both food recovery and distribution services:

- Donation collection vehicles - standard cargo vans & trucks, refrigerated cargo vans, box trucks, large transport trucks
- Warehouses for additional dry good and non-perishable food storage
- Refrigeration – residential, commercial-sized, and walk-in refrigerators & freezers
- Commercial kitchens
- Food Pantry space / food distribution space
- Back-up generator (note: not all organizations have this equipment)

Plans for Future Capacity Expansion

Five of the nine (5/9) food recovery organizations have plans for future expansion of food recovery food donation capacity. These include: Food for People, Arcata House, Salvation Army Eureka, Betty Chinn Foundation, and Oh SNAP!. None of the survey respondents have knowledge of any new food rescue organizations planning to open in the future. Goals for expanding capacity are as follows:



Betty Chinn's commercial kitchen and pantry.

1. Food for People plans to expand food recovery capacity once their new permanent facility is constructed and they are able to transfer the Pantry back to the Choice model⁵. Additionally, Food for People plans to purchase new off-site warehouse space to increase storage capacity for donated food and increased ability to provide Disaster and Emergency Response in the future. Food for People estimates they would need to double operations in order to meet the estimated 18 - 20% of Humboldt County residents facing food insecurity.
2. Arcata House would like to expand meal services, although they have no formal plans.
3. The Salvation Army would like to expand its cold food storage capacity through the purchase of a walk-in freezer.
4. Betty Chinn plans to expand food services to assist residents of a planned transitional housing development on Hilfiker Lane, as well as serve residents of the Humboldt Inn which has asked Betty for food assistance. Betty is interested in expanding on-site freezer capacity so that she can store more donated food.

⁵ Currently, Covid-19 safety requirements have resulted in changes to Food for People's pantry operations in that they now pre-bag all produce and non-perishable foods; many people will not want some of the items in each bag resulting in wasted edible food.

5. HSU Oh SNAP! is hoping to expand food recovery as part of a new contract with HSU Dining Services. As HSU transitions to a Polytechnic, Oh SNAP! expects to have a larger space for expanded food distribution services due to the increase in student population.

Limitations on Edible Food Recovery Capacity Expansion

The biggest limitation on increasing food recovery capacity in Humboldt County is that Food for People currently lacks a permanent facility. A sewer inundation on February 28th 2020 rendered the Food for People building inoperable, forcing a move into leased spaces at four spread-out locations. Operating without a building has strained Food for People’s capacity to conduct food rescue and food distribution. This in turn affects partner organizations that rely on Food for People’s gleaning, storage, and food redistribution services. Building plans have been stalled due to the increase in material prices due to the Covid-19 supply shortages. Food for People is actively raising funds to cover the cost overages in order to move the construction plans forward.

Lack of funding for food recovery infrastructure and additional paid staff were also cited as key limitations to expanding food recovery capacity across organizations. Many food recovery organizations indicated that cold storage (both refrigeration and freezers) is the primary limiting factor, while others expressed that staff shortages and the resulting burn-out of remaining staff members is limiting current operational capacity. The Arcata House noted that one key constraint is the lack of a refrigerated transport van, which means that the gleaner goes back and forth to and from the on-site cold storage often - thus reducing time available to recover edible food. Additionally, Covid-19 and associated health and safety precautions have created additional need for food recovery / distribution supplies (i.e., nitrile gloves, masks, and food packaging supplies) that is impacting current operational costs and food recovery capacity.

The gleaner for Arcata House goes back and forth, to and from the on-site cold storage because the collection van is not refrigerated.

Administration costs and heavy reliance on grant funding was another cited limitation. Lack of paid staff makes relying on grants difficult as the allowable percent of grant funds that can be used for administration is too small. Further, because grant funds are 100% reimbursable an organization has to have a sufficient pool of funds on hand to spend money upfront to cover immediate operating costs such as additional food purchases, staff pay, and utilities. Also, some food recovery organizations find it is difficult to keep up with the typical and unpredictable 1-year grant funding cycle, making it hard to plan for the following year. A 5-year funding cycle would be more efficient for planning and staff time.

Support Needed to Expand Food Recovery Capacity

When asked about challenges related to food recovery and type of support needed, organizations provided some unexpected responses. The types of support needed were not only financial, but of a social nature as well. Areas of support needed to sustain and increase food recovery in Humboldt County include the following:

1. Need for additional outreach and community support for food access services.
 - a. Food recovery organizations would like the community to understand the positive impacts of increasing food access and food security in our county.
 - i. Food distribution services directly impact local housing security. Food for People’s most recent Choice Pantry intake data indicate that 81% of the participants are

housed, working families that either rent or own (72%) or are staying with a friend or relative (9%)⁶. These families often face the choice between rent and food, and food assistance helps them stay housed.

- ii. Food recovery, storage and distribution services help our county become disaster resilient. This was recently exemplified by the increased need that developed as a result of the economic downturn related to the Covid-19 pandemic. Local food pantries have also assisted wildfire refugees and victims of other natural disasters. Additional cold storage with back-up generators can assist County residents during power outages by providing cold storage (and distribution) for foods that would otherwise become waste.
 - iii. Food distribution is often the first point of contact for many homeless people who can then be connected to additional services designed to help them become re-housed and address other issues associated with poverty.
 - iv. Food distribution services contribute to the overall health and wellbeing of children and seniors in particular as well as the community as a whole.
2. Need for funding:
 - a. Funding for additional paid staff; some remote locations in the County have no paid staff making food recovery / food distribution in these areas more difficult to coordinate.
 - b. Gap funding to cover operational costs while waiting for grant fund reimbursement payments.
 - c. Longer term funding sources to improve planning for staffing and infrastructure investments.
 3. Storage - cold and dry storage needed.
 - a. Most organizations need additional refrigerators and freezers to increase capacity.
 - b. Most organizations would need to buy or rent additional food donation storage space.
 4. Need for established, consistent donation policies from large food generators and corporate businesses.
 5. Need for community members to inspect food donations so that they only contain food that is good to eat. Sometimes food recovery organizations feel taken advantage of because of the bad food they are given and have to throw out.
 6. One organization cited a need for increased commercial kitchen space to expand meal service that uses recovered produce as well as prepared foods.

⁶ Only 13% of those receiving food assistance through Food for People's pantry were without permanent housing.
Arcata & Eureka Food Rescue Capacity Assessment 2021

EDIBLE FOOD GENERATORS

All edible food generators were evaluated for mandated compliance status under SB 1383. Restaurants were also evaluated for AB 1826 thresholds as they are a likely source of surplus edible food, and food donation is one way to work towards compliance with both laws. Every potential edible food generator except for the smallest operations such as food trucks, coffee shops, ice cream shops etc. was contacted and provided outreach regarding SB 1383.

The following descriptions include summarized survey results for each SB 1383 Tier group, as well as information about the quantity of entities within each group that are mandated food generators under SB 1383.

Tier1: Grocery Stores & Supermarkets

Interviews conducted at grocery stores and supermarkets showed that local businesses are already leading examples of edible food recovery. All 13 grocery stores & supermarkets identified within Arcata and Eureka have an estimated floor capacity of >10,000ft², and are therefore all mandated food generators. Eleven out of thirteen (11/13) responded to the survey. One business was not able to be reached in person and did not return the survey left for them, and one declined to participate due to “corporate policy”. Interestingly, interviews with food recovery organizations revealed that every grocery store and supermarket in the Arcata and Eureka – including the two that did not participate in the surveys – has an established edible food donation system in place. Most of these are longstanding relationships of many years.

Grocery Stores and supermarkets regularly donate edible food to multiple food recovery organizations. Nine out of thirteen (9/13) donate edible food to Food for People, five of which also donate to farmers for pig food. Other food recovery organizations that receive donations from these generators include the Eureka Rescue Mission, Arcata House, and Food Not Bombs. Eight of the eleven (8/11) survey respondents reported that they make daily donations, while the remaining three reported a donation frequency of 1-2 times per week. Most respondents estimated that 0% - <1% of their waste stream is edible food that could be recovered, however one respondent estimated 50% of the waste stream consisted of food that could be recovered, and another estimated \$200/week worth of edible food is thrown away. The reason given for the 50% estimate is a change in company policy regarding perishable food donation. Survey responses indicate that the most common types of food thrown away are: prepared deli foods, plate scrapings, and spoiled food.

Challenges associated with edible food recovery cited by this group include:

- Need for regular, consistent donation collection services
- Staff time required for scheduling donations
- Navigating regulations pertaining to perishable foods donations
- Concern over litigation associated with donating food
- Storage space for holding donated food until it can be collected
- Safe refrigerated transport for donated food
- Concern that food recovery services may be reduced due to lack of consistent funding

The North Coast Co-op and Eureka Natural Foods are currently participating in every avenue of food waste reduction available in Humboldt County. Employees and local food recovery organizations take edible produce, dairy, and packaged products. **The Co-op alone donated 11.6 tons of edible food to local food recovery organizations in 2020.** Food scraps from deli counters and produce cleaning are used by local pig farmers or composted on-site. The Co-op expressed a specific concern regarding stability of Food for People in the long-term as it is not a state-funded entity, and is therefore reliant on grant funds and community donations, which are not guaranteed to be available in the future.



The Co-Op's edible food collection area.

Tier 1: Food Service Providers

No food service providers were identified in Arcata or Eureka.

Tier 1: Food Distributors

Six (6) food distributors were found to be operating in Eureka, and none in Arcata. Of the six, only three (3) distributed food products, while the remaining three (3) distributed drinks only. Those that distributed drinks only were considered out of the scope of this work and were not surveyed. Two of the three food distributors responded to the survey. All food distributors are mandated food generators under SB 1383; however, it is unlikely that the drink manufacturers are mandated entities as this type of waste is not likely to be landfilled.

Both food distributors that responded to the survey currently donate surplus food; one donates to a farmer to feed animals and the other to the Rescue Mission and Teen Challenge. One makes weekly donations, and the other donates on an as-needed basis. Both estimated that 0% of their waste stream is food that can be recovered. Food remaining in the waste stream consists mainly of spoiled foods, production mistakes, or stale bread. The biggest challenge cited was the need for consistent donation collections as perishable foods can go bad quickly, and they have limited space to store it.

Tier 1: Wholesale Food Vendors

Twenty (20) wholesale food vendors were identified in the cities of Arcata and Eureka. Ten (10) provided responses to the survey. This group consists of both large (e.g., Cypress Grove Chevre, Tofu Shop, Wild Planet Foods) and small food vendors (e.g., Lost Coast Roast, Humboldt Bay Coffee Co, Panaderia El Pueblo Market). All wholesale food vendors are mandated food generators under SB 1383.

This group donates edible food primarily to employees, followed by donations to farms and food waste sent to home compost systems and the Local Worm Guy. Four out of ten (4/10) wholesale food vendors surveyed also donate food to the following recovery organizations: Food for People, Arcata House, and the Eureka Rescue Mission. Wholesale food vendors that donate to food recovery organizations reported making donations 1-2 times / week (2 vendors), six times / year, and 2-3 times / year. Only two of ten (2/10) respondents reported maintaining records of donated foods. All wholesale food vendors surveyed estimated that 0% of their waste stream is food that can be recovered. Foods that are most commonly thrown away include expired foods and manufacturing mishaps. Navigating regulatory oversight was cited as the primary challenge associated with food recovery reported by this group.

Tier 2: Restaurants

In Eureka, **12 out of 94 restaurants** appear to fall within the SB 1383 **mandated food generator** threshold of >5,000ft² floor area⁷. Only **three (3) out of 47 restaurants in Arcata** appear to fall within the SB 1383 threshold. However, many restaurants in both cities will fall under the AB 1826 mandated compliance status (i.e., >2yd³ waste collection service / week - including recycling), and were therefore included in the survey as edible food donation is one way to move towards compliance with both laws.

AB 1826 mandated status was determined based on current solid waste service level data. The data showed that out of 47 restaurants in Arcata, 26 fall within the AB 1826 mandated entity threshold⁸. In Eureka, 51 out of 94 restaurants fall within the AB 1826 mandated entity threshold⁹. Although the majority of restaurants do not fall under the requirements for mandated donors under SB 1383, many respondents expressed that they are already avoiding edible food waste.

Key Survey Results Arcata

In Arcata, 25 out of 47 restaurants provided survey feedback. Of the 25 respondents, 13 do not participate in any edible food donation services, 9 donate surplus food to employees or their families, 3 compost extra food, 1 donates to Food for People, and 1 simply wrote “We don’t have any waste” as an answer to the entire survey¹⁰. Only the one restaurant that donates to Food for People maintains food donation records (meals donated). Of the 25 respondents, 19 out of the 25 reported 0 – 1% estimated quantity of edible food remaining in the disposed waste stream, 2 reported an estimate of 5%, 3 reported an estimate of 15-25%, and 1 reported 84 slices of pizza per week.

Key Survey Results Eureka

In Eureka, 36 out of 94 restaurants provided survey feedback. Of the 36 respondents, 28 do not participate in any edible food donation services, 9 donate surplus food to employees, business neighbors, or directly to people in need on the nearby streets; and 5 donate to food recovery organizations including Food for People, the Eureka Rescue mission and Betty Chinn. Only one restaurant maintains records of edible food donations. Of the 36 respondents, 30 reported 0 – 2% estimated quantity of edible food remaining in the disposed waste stream, 1 estimated 10-20% of the waste stream was edible food, and 1 reported an estimate of 6-7 lbs / week. Four (4) respondents declined to provide an estimate.



Oriental Buffet in Arcata has been donating edible food since 2017



Sammy's BBQ & Catering – “My mom would kill me if I threw away good food!”

⁷ Restaurant floor area data (required to determine SB 1383 thresholds) was not available during this assessment; therefore, Google Earth imagery and measuring tools were used to provide estimated building area. For this reason, uncertainty is expressed when presenting SB 1383 mandated restaurants.

⁸ Note: Garbage service level data was not available for 20 out of the 47 Arcata restaurants.

⁹ Note: Garbage service level data was not available for 42 out of the 93 Eureka restaurants.

¹⁰ This entity has a garbage service level of 6 yd³/week.

Restaurant Feedback

A common sentiment expressed by restaurant owners and managers was the need to keep food costs low. This results in making meals to order, purchasing food ingredients more frequently, and repurposing unused ingredients. For example, an Arcata sushi restaurant uses fish that is no longer sushi grade in their fried specialty rolls, and a Eureka steakhouse uses steak trimmings in their ground beef patties. These are just two examples of the many ways respondents reduced potential food waste and repurposed edible food.

The most common food items that end up in the trash are plate scrapings, followed by food preparation scraps and spoiled / out-of-date foods. One business-type that expressed having more potentially edible food waste than others are pizza parlors. The most notable example was a restaurant that estimated throwing away about 84 slices of pizza daily. Food safety laws prevent food that is not kept above 135 degrees or below 41 degrees for more than 4 hours to be served. Pizza restaurants that reheat already cooked pizza to order are not able to store unsold pizza in cold storage to allow for convenient pick-up by food recovery organizations. However, employees take it upon themselves to distribute leftover pizza to local houseless people, and amongst themselves.

Challenges associated with food recovery cited by the Tier 2 Restaurant group include the following:

1. Time required to participate in edible food recovery (boxing, coordinating, recordkeeping)
2. Insufficient cold storage space
3. Knowing how to make food donation arrangements; where to donate / who to call
4. Need for daily/ frequent collection due to perishable nature of food
5. Concerns over food safety and/or liability if someone becomes sick from eating donated food
6. Edible food donation decisions are made at a higher level for some chain restaurants

Catering Businesses

Catering businesses do not fall into any SB 1383 Tier group but may be a good source of recoverable edible food. Most catering businesses were not able to be reached during the survey period as operations were likely shut down due to the pandemic. The one caterer who was reached by phone cited that they compost excess food. The main challenge associated with donating surplus food cited by this caterer was having their donations accepted due to recovery organization concerns with health and safety requirements, and having to “jump through hoops” such as establishing a formal relationship before donating.

Tier 2: Local Education Agencies

All local education agencies with on-site food facilities are considered mandated food generators under SB 1383. Respondents at K through 12 schools in Arcata and Eureka expressed that food waste is already kept to a minimum through a number of steps taken by school administrators. These surveys were done over the phone, with a total of seven interviews representing the food waste management at 15 schools.

All respondents described some form of food waste recovery. Humboldt State University (HSU) dining services has a long history of supporting edible food recovery through its partnership with the campus-

based Oh SNAP! food recovery / distribution program for HSU students with food insecurity. Another school reported that it donates surplus food to the Backpacks for Kids program, and several schools have “share tables” where students leave whole, unopened foods for other students to take. Additionally, the two schools work with The Local Worm Guy to compost food waste, and four respondents reported that employees take food scraps home for compost or as animal feed.

Local Education Agencies surveyed estimated between 0% and 5% edible food in the waste stream. A common explanation for the small estimated quantity of edible food ending up in the waste stream is that schools have a set number of students to feed on a strict budget. Food Coordinators are able to closely track the quantity of food needed to not overbuy. Food waste remaining in the waste stream is primarily plate scrapings, spoiled foods, fruit / milk, and prepared foods. None of this Tier 2 group reported maintaining records of donated food. Local education agencies did not cite any challenges associated with edible food recovery.

“It’s easy to prevent food waste because we’re dialed in and have a tight budget.”
– Pacific Union School

Tier 2: Hotels

None of the Hotels and Motels in Arcata and Eureka fall within the number of rooms component of the SB 1383 threshold (200+ rooms and an on-site food facility) for mandated hotels. However, the team attempted to survey the five (5) hotels that were found to serve food. Two hotels in Eureka, the Red Lion Hotel and the Comfort Inn participated in in-person interviews.

Neither of the hotels that responded to the surveys currently donate to local food recovery organizations, however one reported that they donate extra food to employees. Both businesses expressed minimal edible food waste (<1%) remaining in the waste stream in part due to reduced food service related to COVID-19. Plate scrapings were cited as the primary source of food waste that remains in the waste stream. Maintaining correct health & safety temperatures for their breakfast buffet food, and knowing how to contact food recovery organizations were cited as the key challenges associated with edible food recovery at hotels.

Tier 2: Health Facilities

None of the health facilities in Arcata and Eureka fell within the SB 1383 compliance threshold (100 or more beds). The survey team attempted to interview the largest hospitals as potential generators of donatable food, however the hospitals’ staffing was significantly impacted by Covid-19, rendering SB 1383 survey response a low priority. Mad River Community Hospital is the only health facility that was able to be reached for a survey. This hospital has a history of sustainability, particularly in regards to their food services department. Any extra unserved prepared food is first offered for sale in the café, then sent to Food for People. Mad River Community Hospital estimated that <1% of their remaining waste stream is edible food¹¹. The main challenge with food recovery cited by the hospital is a potential conflict with established safety protocols.

¹¹ Mad River Community Hospital maintains an on-site garden to supply fresh produce for hospital food services. This garden allows the hospital to avoid creating food waste by harvesting only what is needed. The on-site gardens also serve as a food waste composting location; this has resulted in food waste making up less than 10% of the hospital’s disposed waste stream.

The largest hospital in the area, Providence St. Joseph's Hospital was not able to fully participate during the survey period; however, during an initial phone call it was expressed that the hospital had recently undergone a change in their food services, with the hopes that the new service would be more sustainable and less wasteful. Once the demands on staff time return to pre-pandemic normalcy, this entity may be a good candidate for increasing edible food recovery.

In an attempt to gain a broad set of survey responses, the three largest assisted living facilities in Eureka were given surveys to be mailed back¹². Unfortunately, none of these surveys were returned. This type of health facility may be similar to schools wherein a set number of resident patients are fed with a limited budget necessitating careful purchasing practices.

Tier 2: Large Venues & Large Events

Under SB 1383, large venues and large events are defined as locations that serve an average of 2,000 people per day of operation. No large venues that meet this definition were identified in either Arcata or Eureka. Further, all events were shut down due to the Covid-19 pandemic. The only venue identified in Humboldt County that meets this definition is the Humboldt County Fairgrounds in Ferndale which has a capacity to host 4,000 people. Redwood Acres in Eureka is the second largest venue with a capacity of 1,300 people. In pre-Covid conditions, both fairgrounds' facilities are rented throughout the year to a wide variety of events and shows. Both cities have many smaller event venues that hold 500 or fewer people.

Tier 2: State Agency Cafeterias

No state agencies with cafeterias were identified in either jurisdiction during this assessment.

¹² Due to the risk of Covid-19 and its prevalence in these facilities, in-person interviews were not attempted.
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POTENTIAL EDIBLE FOOD RECOVERY

According to the 2021 HWMA Waste Characterization Study, potentially donatable food waste comprises an estimated 1-2% of the overall solid waste streams in Arcata and Eureka. Potentially donatable edible food (tons/year) are shown in Tables 7 & 8, and resulting SB 1383 Target increase in edible food recovery (tons/year) is shown in Table 9.

Table 7: Potential Edible Food Recovery in the Arcata solid waste stream

Potential Food Recovery Arcata				
Component of waste stream	% Overall waste stream	Est. Tons / year	% Commercial waste stream	Est. Tons / year
Potentially Donatable Food Waste	0.9	88	1.1	53
Non-donatable Food Waste	16.4	1,669	21.9	1,091

Table 8: Potential Edible Food Recovery in the Eureka solid waste stream

Potential Edible Food Recovery Eureka				
Component of waste stream	% Overall waste stream	Est. Tons / year	% Commercial waste stream	Est. Tons / year
Potentially Donatable Food Waste	1.6	517	2.7	296
Non-donatable Food Waste	13.1	4,225	23.5	2,601

Table 9: SB 1383 Edible Food Recovery Targets

SB 1383 20% Target for increase in Edible Food Recovery by 2025		
Component of waste stream	Arcata	Eureka
	Ton / year increase in Edible Food Recovery	Ton / year increase in Edible Food Recovery
Potentially Donatable Food Waste	18	59

The total number of mandated and unmandated food generators known to be participating in some form of edible food donation is shown in the tables that follow. It should be noted that the number of food generators currently participating in food recovery is likely higher than what is shown below as not all entities responded to the survey.

Additional food recovery is likely to come from corporate franchise or chain type restaurants, new restaurants, restaurants with a high volume of weekly garbage service, corporate food vendors, and the one grocery store that cited they used to donate perishables but stopped due to a changed corporate policy. Providence St. Joseph's Hospital, catering businesses, food vendors at event venues, and hotels with food service may also be good candidates for increasing food donations once Covid-19 restrictions are lifted.

Table 10: Mandated Entities and Edible Food Recovery participation in Arcata

SB 1383 Mandated Entities Arcata			
Food Generators	Total # entities	Total # SB 1383 mandated entities	# Entities known to be participating in some form of edible food donation*
Tier 1			
Grocery Stores & Supermarkets	6	6	6
Food Distributors	0	0	0
Wholesale Food Vendors	5	5	3
Tier 2			
Restaurants	47	3	1
Hotels	9	0	1
Health Facilities	2	0	1
Local Education Agencies	13	13	13

* Forms of edible food donation include: donations to food recovery organizations, donation to employees, family, or strangers on the street.

Table 11: Mandated Entities and Edible Food Recovery participation in Eureka

SB 1383 Mandated Entities Eureka			
Food Generators	Total # entities	Total # SB 1383 mandated entities	# Entities known to be participating in some form of edible food donation*
Tier 1			
Grocery Stores & Supermarkets	7	7	7
Food Distributors	6	3	2
Wholesale Food Vendors	15	15	6
Tier 2			
Restaurants	94	12	15
Hotels	27	0	1
Health Facilities	16	0	0
Local Education Agencies	12	11	12

* Forms of edible food donation include: donations to food recovery organizations, donation to employees, family, or strangers on the street.

EXPECTED GROWTH OF DISPOSED FOOD

The expected growth of disposed food in the waste stream is hard to predict as changes in the overall economy and efficacy of local gleaning/composting efforts play a role in addition to population change. For example, when comparing the 2011 and 2021 HWMA Waste Characterization Studies, the 10-year change in overall disposed food waste for Arcata was a decrease of 12.8% (2,014 tons in 2011 vs. 1,757

tons in 2021) and the respective change for Eureka was an increase of 5.7% (4,485 tons in 2011 vs. 4,782 tons in 2021). As changes in population (see tables that follow) have been relatively small over the last decade, the disposed food waste will likely remain more or less around the 10-year range until edible food recovery is expanded, and local organic waste processing facilities become available. One factor which could increase disposed food waste is Humboldt State University’s plans to expand student population via the transition to a Polytechnic Institute.

The current and expected population of each city by 2025 as predicted by the average annual rate of population change over the last census period is shown in the tables below:

Table 12: Arcata anticipated population growth

Arcata			
	Year	Population (# residents)	Average % population change / year*
Reporting Year	2021	18,674	0.66%
Target Year	2025	19,161	

* Source: 2019 U.S. Census data; April 2010 (base year) – July 2019

Table 13: Eureka anticipated population growth

Eureka			
	Year	Population (# residents)	Average % population change / year*
Reporting Year	2021	26,603	-0.20%
Target Year	2025	26,389	

* Source: 2019 U.S. Census data; April 2010 (base year) – July 2019

COMPARISON OF POTENTIAL FOOD RECOVERY TO CAPACITY

All food recovery organizations indicated they would take as much donated food as they could acquire based on consistent need for food assistance in all communities around the County. There are however logistical limits to the expansion of edible food recovery related to staff time required for recovery coordination with businesses, adequate refrigerated transportation, sufficient recovery route drivers, and cold / dry storage limitations.

A 20% increase in edible food recovery – or 77 tons per year (Arcata & Eureka combined) – would be achievable if Food for People and the network of food recovery organizations are able to dramatically expand capacity. Currently, Food for People, the hub of the local food pantry network, receives 93 tons per year of recovered food. FFP estimates that it currently serves 10% of Humboldt County residents and would need to double its operations in order to meet the full need for food assistance in the county. Doubling the quantity of edible food recovered by the FFP network would result in approximately 186 tons per year recovered, which equates to approximately 27% of the potentially recoverable edible food estimated to remain in the Arcata and Eureka waste streams (combined). These organizations will need support in order to achieve and sustain this level of increase in edible food recovery.

KEY FINDINGS

- This Assessment unintentionally served as a pilot for conducting SB 1383 and AB 1826 outreach.
 - Based on response rates, the survey team found that in-person communications yield far better results than mail-in surveys, detailed phone messages, or emails.
 - Follow-up questions and on-site observations yielded informative insights.
 - Simple questions that require no more than 5 minutes were an effective motivator for survey participation.
- Food recovery organizations overwhelmingly expressed a desire to expand food recovery in Arcata and Eureka; especially once Food for People has a new permanent location with expanded dry and cold storage.
 - Despite the desire for expanded recovery, current limitations for food recovery organizations include relying on volunteer labor and lack of refrigerated collection trucks.
- A working and financial relationship between government entities and the food recovery organizations would reduce pressure on these non-profit organizations to find grant funding, and would allow them to redirect their energy to on-the-ground food recovery.
- Restaurants experience a bump in interest when first opening followed by big fluctuations in customers (many customers one night, few the next etc.) which can cause a lot of food to be wasted. After a few months' time the customer base levels out and restaurant owners are able to more accurately predict sales and waste less food. Therefore, it is important to conduct outreach to new restaurants regarding food rescue services so that any surplus food generated during this initial period of operation is captured.
- Franchise restaurants that have to adhere to corporate policies reported higher levels of food waste, in part due to concern over liability associated with donating food. Outreach and relationship-building with these businesses may prove to be helpful in expanding food recovery.
- Record keeping requirements for both food generators and food recovery organizations will present new demands on already-stretched staff and volunteer time. Food recovery organizations are the likely candidates for collecting and maintaining edible food recovery data, and therefore would likely benefit from some form of automated tracking.
- Ease of contact / connection to food rescue organizations is key as perishable/rescuable foods cannot be stored for too long and go bad quickly.
- Third party entities can play a useful role in future outreach and implementation of SB 1383. Follow-up surveys, waste audits, and edible food recovery training for food generators requires face-to-face communication which may be easier to accomplish through a third party.
- Organic waste coming from food generators is primarily non-recoverable food waste, especially plate scrapings.

KEY OUTCOMES

1. Confirmation that edible food rescue organizations operating in Arcata and Eureka have additional capacity to accept new donations.
2. List of Mandated SB 1383 Tier 1 & Tier 2 Food Generators in the Arcata and Eureka Jurisdictions (Appendix A)
3. Master List of food generators (Excel workbook) that also identifies restaurants mandated under AB 1826.
 - a. Master Food Generator list is Microsoft Excel-based and can serve as a database to be updated annually to add new businesses, track outreach efforts, and track compliance efforts for both SB 1383 and AB 1826.
4. Demonstrated compliance with SB 1383 Education and Outreach requirements under Section 18985.2(a) (1).
 - a. Table 4 titled “Food Recovery Organizations and Types of Food Accepted” meets all requirements under this section.
5. Demonstrated compliance with SB 1383 Jurisdiction Education and Outreach Record Keeping requirements under Section 18985.3.
 - a. Appendix A contains a List of Mandated Tier 1 and Tier 2 Food Generators that includes required record keeping information such as date, recipient, and type of outreach.
 - b. Appendix B contains the surveys used to gather data.
 - c. Appendix C contains the 1-page outreach leave-behind that was distributed to all restaurants and grocery stores.
6. Survey responses provide information needed for the Cities to take the next steps towards compliance under section 18991.1 - Jurisdiction Edible Food Recovery Program.

This information includes:

 - a. Identified challenges associated with expanding edible food rescue
 - b. List of support required to assist food recovery organizations in expanding edible food rescue capacity
7. One edible food generator re-established food rescue service with the Eureka Mission and pre-consumer food scrap collection with a local pig farmer after participating in the survey.

CONCLUSIONS

The Humboldt Bay Region is beginning to see economic development with new businesses moving to the area as well as the conversion of HSU to a California Polytechnic University. In order to achieve compliance with SB 1383 and AB 1826, the Cities of Arcata and Eureka will need an expanded edible food recovery system that includes this potential growth. The first step will be to work with the existing food recovery network to seek creative solutions to the challenges identified during the assessment.

According to the 2021 Humboldt County Waste Characterization Study significant amount of potentially edible food is still showing up in the Arcata (53 tons) and Eureka (296 tons) commercial waste streams. Many survey participants reported very little edible waste remaining in their waste streams due to direct donations, purchasing practices, composting, and donating to feed animals. There are several potential explanations for this inconsistency:

- Edible food is being disposed that the survey respondent is unaware of.
- Some donors are not donating all of the edible food that they could be due to internal policies geared towards avoiding litigation (i.e., not donating certain perishable foods).
- Potentially recoverable food is elsewhere in the commercial waste stream.

Targeted outreach to all entities not able to respond to this survey may result in new sources of recovered edible food. This is particularly true for restaurants and Providence St Joseph's hospital. Other potential opportunities to increase edible food recovery may be working with corporate entities (i.e., chain or franchise restaurants / grocery stores & wholesale food vendors) to establish internal policies that maximize locally recovered edible food. This is likely to yield results as these large businesses have many stores located throughout California, all needing to comply with SB 1383. Other potential sources of recoverable food waste are: businesses with buffet food service, catered events, and food vendors for events held in local venues.

Key decisions at each stage from purchasing to preparation to creative re-use can significantly reduce the amount of food waste generated. These choices require a well-informed / well-trained workforce and commitment to reduce food waste at each step. To comply with the mandates of SB 1383 and AB 1826, Humboldt's food manufacturing, distribution, and food-serving businesses will need to make food waste reduction an even greater priority in their staff training. Cities will need to employ multiple types of outreach and expand policy to support a new ethic of maximizing edible food donation.

Finally, while food waste reduction is largely dependent on management decisions and staff practices, in the near future a growing variety of software and sensing technologies will assist jurisdictions in connecting edible food donors to recovery organizations. This growing field of software can also assist food recovery organizations and jurisdictions with record keeping by automating the tracking of food donations by weight, date, and donor. Technologies designed to increase edible food recovery are already being applied in large cities by restaurants and food bank networks. Appendix D contains a few examples worth investigation. The Cities will need to work closely with food recovery organizations to determine which types of software and automation are appropriate in the context of their operations.

CONSULTANT'S RECOMMENDATIONS / NEXT STEPS

1. Obtain email contact information for all food generators as part of the business license
 - a. This will enable direct communications between the Cities and the food generators regarding SB 1383 and AB 1826 activities (surveys), policies, and programs.
2. All food businesses should receive follow-up outreach thanking those who participated in the survey and informing all businesses about edible food recovery options.
3. Update the City websites to reflect the work that is being undertaken to comply with SB 1383 as well as present additional food recovery resources.
 - a. Include information about the positive impacts of food donations – greenhouse gas emissions reductions, increased housing security, community resilience etc.
4. Partner with food recovery organizations to acquire grant funding for capital improvements that can immediately assist them in expanding food recovery capacity such as cold storage equipment, rented or purchased dry storage space, and refrigerated trucks.
5. Work with food recovery organizations to evaluate funding options that provide longer-term predictability and planning horizons (~5-years) for staffing and infrastructure upgrades.
 - a. Evaluate ways in which Cities and/or the County can assist food recovery organizations in “gap” funding to pay for operations and utilities while waiting for reimbursements.
 - b. Assist food recovery organizations in leveraging local support to secure larger grant funds.
6. Work with food recovery organizations to develop edible food donation tracking plan / assess tracking software, and evaluate approaches for coordinating food recovery tracking efforts.
7. Verify Tier 2 mandated generators through building department data (total facility area)
 - a. Conduct focused outreach to these entities to assess potential for increasing edible food recovery, and make sure they understand the requirements of SB 1383.
8. Obtain up-to-date solid waste service levels for all commercial food generators
 - a. Reach out to those with more than 2yd³ of solid waste/week to gauge interest in donating edible food as a first step towards compliance with AB 1826.
 - b. Make sure all have the list of food recovery organizations, including types of food accepted and contact information.
9. Reach out to corporations operating local food-related businesses to understand food donation policies, and discuss SB 1383 record keeping requirements / increased transparency surrounding local management of recoverable food waste.
 - a. Evaluate potential to increase edible food recovery from these businesses.
10. Develop local policy that requires any restaurant with buffet service, all catered events, and food suppliers at all large events to donate unserved edible food.
 - a. The Humboldt Food Policy Council has established a broad network from all aspects of the food systems in the County, and as such would be an invaluable partner in developing policies designed to increase edible food recovery.

RESOURCES CONSULTED

1. California Retail Food Code Sections: 113735, 113980, 113996, 114000, 114002, 114021.
2. Cascadia Consulting Group. 2012. *Humboldt County Waste Characterization Report*.
3. Cascadia Consulting Group. 2021. *Humboldt Waste Management Authority Waste Characterization Study*.
4. Dillman, D.A., J.D. Smyth and L.M. Christian. 2014. *Internet, Phone, Mail and Mixed-Mode Surveys: The Tailored Design Method*.
5. Food for People. Fall 2020, Winter 2020, Spring 2021, Summer 2021, & Fall 2021. *Food Notes; Newsletter of Food for People*. Accessed via Food for People website.
6. Humboldt State University: California Center for Rural Policy 2018. *Humboldt Food Access & Pantry Service Report; Results from Surveys Taken at Every Food Pantry in Humboldt County, California in the Fall of 2017*.
7. Stubblefield D, Steinberg SL, Ollar A, Ybarra A, Stewart C; Humboldt State University: California Center for Rural Policy. 2010. *Humboldt County Community Food Assessment*.
8. United States Census Bureau. 2019. Census data for the Cities of Arcata and Eureka: <https://www.census.gov/quickfacts/fact/table/eurekacitycalifornia,arcatacitycalifornia,humboldtcountycalifornia,CA,US/PST045219>.

APPENDIX A

List of SB 1383 Tier 1 & Tier 2 Mandated Food Generators

The following document includes lists of all Tier 1 and Tier 2 mandated food generators in Arcata and Eureka. SB 1383 definitions of donor types are included with each list. Under the guidelines for mandated food donors, there were 77 businesses and organizations that qualified and were contacted for participation in the survey. Of these, 45 (58%) were able to participate.

Tier 1 Generators

- **Must begin sending surplus edible food to local food recovery organizations by January 1, 2022.**

Super Markets are defined as full-line, self-service retail stores with gross annual sales of two million dollars (\$2,000,000), or more, and which sells a line of dry grocery, canned goods, or nonfood items and some perishable items to qualify as mandated food donors. No Super Markets were identified in Arcata.

Supermarkets in Eureka						
Generator	Address	Contact	Date	Method	Total Est. Area (ft ²)	
1	Costco Wholesale	1006 W Wabash Ave	Tamara, Store Manager	July-September 2021	Interview	120,000
2	Winco Foods	636 W Harris St	Floor Manager	July-September 2021	Interview	86,000
3	Target	2525 4 th St			Denied participation	150,000

Grocery Stores are defined as a business selling produce, fresh grocery and shelf-stable foods that have a total facility size equal to or greater than 10,000 square feet to qualify as mandated food donors. Square footage estimates were found using Google Earth data.

Grocery Stores in Arcata						
Generator		Address	Contact	Date	Method	Total Est. Area (ft ²)
1	Murphy's Sunnybrae Market	785 Bayside Rd	Manager	July-September 2021	Interview	20,000
2	Murphy's Westwood Market	100 Westwood Ct	Manager	July-September 2021	Interview	12,000
3	Safeway	600 F St	Manager	July-September 2021	Interview	32,000
4	North Coast Co-op Arcata	811 I St	Kiya, Sustainability Officer	July-September 2021	Interview	26,000
5	Ray's	5000 Valley West Blvd	Manager	July-September 2021	Interview	23,000
6	Wildberries Market	747 13th St	Manager	July-September 2021	Interview	18,000

Grocery Stores in Eureka						
Generator		Address	Contact	Date	Method	Total Est. Area (ft ²)
1	Eureka Natural Foods	1450 Broadway St	Graig, General Manager	July-September 2021	Interview	27,000
2	Cash & Carry	6700 US 101	General Manager	July-September 2021	Phone Interview	21,000
3	North Coast Co-op	25 4th St	Kiya, Sustainability Officer	July-September 2021	Interview	30,000
4	Eureka Grocery Outlet	625 Commercial St			Did not return survey	22,000

Food Distributors are defined as a company that distributes food to entities including, but not limited to, supermarkets and grocery stores. There are no size requirements to qualify as mandated food donors. There were no food distributors identified in Arcata.

Food Distributors in Eureka					
Generator		Address	Contact	Date	Method
1	Varsity Ice Cream Company	1372 2 nd St	Kelsey	July-September 2021	Phone Interview
2	Flowers Baking Co of Modesto	1100 W Del Norte	Don	July-September 2021	Phone Interview
3	Pacific Choice Seafoods	1 Commercial St			No response to phone messages

Wholesale Food Vendors are defined as a business or establishment engaged in the merchant wholesale distribution of food, where food (including fruits and vegetables) is received, shipped, stored, and prepared for distribution to a retailer, warehouse, distributor, or other destination. There are no size requirements to qualify as mandated food donors.

Wholesale Food Vendors in Arcata					
Generator		Address	Contact	Date	Method
1	Lost Coast Roast	550 G St, #36, Arcata	Owner	July-September 2021	Phone Interview
2	Tofu Shop	65 Frank Martin Ct, Arcata	Matthew Schmit	July-September 2021	Phone Interview
3	Cypress Grove	1330 Q St, Arcata	Angela DeMocko	July-September 2021	Phone Interview

Wholesale Food Vendors in Eureka					
Generator		Address	Contact	Date	Method
1	Albee & Buck Candies	725 B St, Eureka	Gary Agajanian	July-September 2021	Phone Interview
2	Humboldt Bay Clam Chowder Co.	2834 F St, Eureka	Owner	July-September 2021	Phone Interview
3	Riley Family Farm	2823 H St, Eureka	Jessie & Melinda Riley	July-September 2021	Phone Interview
4	Humboldt Bay Coffee Company	520 2 nd St, Eureka	Lucia Ramirez	July-September 2021	Phone Interview
5	Panaderia El Pueblo Market	312 W Washington St	Engelberto Tejada	July-September 2021	Interview
6	Wild Planet Foods	45 Waterfront Dr	Jon Boyer, Customer Service & Operations Manager	July-September 2021	Phone Interview

Tier 2 Generators entities must begin donating food by January 1, 2024.

Restaurants must have 250 or more seats, or a total facility size equal to or greater than 5,000 square feet to qualify as mandated food donors. Estimates of total facility area were found using Google Earth.

Mandated Restaurants in Arcata						
Generator	Address	Contact	Date	Method	Total Est. Area (ft ²)	
1	Oriental Buffet	5000 Valley West Blvd	Owner	July-September 2021	Interview	7,600
2	Fiesta Grill and Cantina	3525 Janes Rd			Did not return survey	6,800
3	Rita's	855 8 th St			Did not return survey	6,500

Mandated Restaurants in Eureka						
Generator	Address	Contact	Date	Method	Total Est. Area (ft ²)	
1	Village Pantry Restaurant	1912 Broadway	General Manager	July-September 2021	Interview	7,200
2	In-N-Out Burgers	2616 Broadway	Staff Person	July-September 2021	Interview	9,400
3	Tres Chiles Picosos	3502 Eureka	Staff Person	July-September 2021	Interview	6,700
4	Applebee's	2846 Broadway	General Manager	July-September 2021	Interview	5,500
5	McDonald's	3450 Broadway	Manager	July-September 2021	Interview	5,700
6	Lost Coast Brewery	617 4 th St	General Manager	July-September 2021	Interview	4,800+
7	Shamus T. Bones	1911 Truesdale St	Lead Manager	July-September 2021	Interview	8,300
8	McDonald's	1730 4 th St			Did not return survey	5,100
9	Pho Thien Long 2	307 4 th St			Did not return survey	5,100
10	Humboldt Smokehouse	310 5 th St			Did not return survey	5,100
11	Jack's Seafood	4 C St Suite B			Did not return survey	9,300

Local education agencies with an on-site food facility qualify as mandated food donors. Local education agency means a school district, charter school, or county office of education that is not subject to the control of city or county regulations.

Local Education Agencies in Arcata					
Generator		Address	Contact	Date	Method
1	Arcata High School	1720 M St	Food Coordinator	July-September 2021	Phone Interview
2	Pacific Coast High School	1720 M St	Food Coordinator	July-September 2021	Phone Interview
3	Six Rivers Charter School	1720 M St	Food Coordinator	July-September 2021	Phone Interview
4	Fuente Nueva Charter School	1730 Janes Rd	Food Coordinator	July-September 2021	Phone Interview
5	Trillium Charter School	1464 Spear Ave	Food Coordinator	July-September 2021	Phone Interview
6	Pacific Union School	3001 Janes Rd	Food Coordinator	July-September 2021	Phone Interview
7	Arcata Elementary School	2400 Baldwin Sr			Did not respond to phone messages/email
8	Jacoby Creek School	1617 Old Arcata Rd			Did not respond to phone messages/email
9	Sunnybrae Middle School	1430 Buttermilk Ln			Did not respond to phone messages/email
10	Coastal Grove Charter School	1897 S St			Did not respond to phone messages
11	Redwood Coast Montessori School	793 K St			Did not respond to phone messages
12	Union Street Charter School	470 Union St			Did not respond to phone messages
13	Laurel Tree Charter School	4555 Valley West Blvd			Did not respond to phone messages
14	Northcoast Prep & Performing Arts Academy	285 Bayside Rd			Did not respond to phone messages
15	Humboldt State University	1 Harpst St			Was not able to complete survey

Education Agencies in Eureka					
Generator		Address	Contact	Date	Method
1	Alice Birney Elementary	717 South St	Food Coordinator	July-September 2021	Phone Interview
2	Grant Elementary	3901 G St	Food Coordinator	July-September 2021	Phone Interview
3	Lafayette Elementary	3100 Park St	Food Coordinator	July-September 2021	Phone Interview
4	Washington Elementary	3322 Dolbeer St	Food Coordinator	July-September 2021	Phone Interview
5	Winship Middle	2500 Cypress Ave	Food Coordinator	July-September 2021	Phone Interview
6	Zoe Barnum Continuation High School	216 W Harris St	Food Coordinator	July-September 2021	Phone Interview
7	Catherine L. Zane Middle School	2155 S St	Food Coordinator	July-September 2021	Phone Interview
8	Eureka Senior High School	1915 J St	Food Coordinator	July-September 2021	Phone Interview
9	*Freshwater Charter School	75 Greenwood Heights Dr	Food Coordinator	July-September 2021	Phone Interview
10	Alder Grove Charter School	714 F St	Food Coordinator	July-September 2021	Phone Interview
11	Pacific View Charter 2.0				Did not respond to phone messages

*Freshwater Charter School receives food from Pacific Union Elementary.

APPENDIX B

SURVEYS USED IN THE EDIBLE FOOD RECOVERY ASSESSMENT



Date: _____

Business Name: _____

CalRecycle Tier Designation (1 or 2): _____

Main Contact, Title: _____

Contact Phone Number: _____

Edible Food Recovery Survey

This survey is being administered by Zero Waste Humboldt on behalf of the City of Arcata, as part of a grant from CalRecycle. The purpose of the survey is to identify potential edible food donors in an effort to not only reduce food insecurity in Humboldt County, but also assist businesses like yours in achieving compliance with California's waste reduction laws contained in AB 1826 - the mandatory commercial organics recycling law, and SB 1383 the Short-Lived Climate Pollutant Reduction Strategy. SB 1383 requires that no less than 20% of edible food be recovered in the state of CA by 2025. Donating edible food is one way to achieve compliance with both these laws. The information you provide will guide our efforts to improve the edible food recovery systems in Arcata and Eureka.

1. Does your business currently participate in any food donation services?
(i.e., Food for People, Rescue Mission, food pantries, farms/animals etc.)

Yes

Maybe/Unsure

No

a. **If yes**, which one(s)?

b. How often do you donate food?
(once a week, once a month, etc.)

c. Do you have an estimate of how much food you are donating?
(can be weekly, monthly or annually)

2. Do you track food donations? If so, how?
(pounds, meals, number of clam shell containers, any information possible)

3. If you had to estimate, what portion of your daily or weekly trash (cans/bins/dumpster) is edible food that could be recovered? (i.e., food fit for human consumption)
Please provide your best estimate as a percentage.

4. What are the most common types of foods are you throwing away?

- | | |
|---|---|
| <input type="checkbox"/> Plate scrapings | <input type="checkbox"/> Spoiled/damaged whole fruits & vegetables |
| <input type="checkbox"/> Prepared foods | <input type="checkbox"/> Spoiled meat |
| <input type="checkbox"/> Past best-by-date packaged foods | <input type="checkbox"/> Spoiled dairy, eggs, or dairy/egg alternatives |
| <input type="checkbox"/> Other: | |

5. **(If not already donating food)** Would you be interested in participating in a food recovery service? Generally speaking, you would be required to box up the food and provide space in your cold storage until the donation can be collected.

Yes Maybe/Unsure No

a. If not interested, do you mind explaining why?



Date: _____

Organization Name: _____

Contact, Title: _____

Contact Phone #: _____

Survey Interviewer: _____

Edible Food Recovery Survey

This survey is being administered by Zero Waste Humboldt through funding provided by the City of Arcata, as part of a grant from CalRecycle. California law under SB 1383 requires that no less than 20% of edible food must be recovered in the state of CA by 2025. The information you provide will guide our efforts to improve the edible food recovery systems in Arcata and Eureka.

Survey Questions

1. Which of the following best describes your organization? (Please check all that apply.)

- Food Bank
- Food Pantry – under principles of church
- Nonprofit Food Recovery Service
- For-profit Food Recovery Service
- Food Upcycling Business
- Faith-based Organization with a Food Distribution Program
- Social Enterprise
- Food Recovery Kitchen
- Other: _____

2. What types of food does your organization rescue directly from food donors? (Please check all that apply.)

- Fresh produce
- Shelf-stable/Non-perishable foods
- Fresh grocery requiring refrigeration
- Frozen grocery requiring freezing
- Baked goods
- Frozen prepared foods
- Cold prepared foods
- Hot prepared foods
- Other
- My organization does not rescue food directly from food donors

3. What food types are not accepted? What are the reasons why they are not accepted?
(e.g., foods that require food storage b/c there is no refrigerator).

4. How many pounds of food did your organization receive in 2020? How much food did you typically receive in pre-2020 years?

6. How much food per month are you able to accept?

7. What types of records do you keep?

(e.g., lbs. collected, contracts with donors, meals served etc.)

8. Please describe the relationship your organization has with your local food bank. (Check all that apply.)

- I do not have a relationship with my local food bank.
- I receive food from my local food bank.
- My local food bank helps connect me with food donors.
- My organization is a food bank.

9. Please select the types of food donors from which your organization rescues food. (Please select all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> Supermarkets and grocery stores (Safeway, Murphy's, Co-op, ENF) | <input type="checkbox"/> Hotels |
| <input type="checkbox"/> Big box warehouse stores (may potentially include Costco, Target, Walmart) | <input type="checkbox"/> Hospitals |
| <input type="checkbox"/> Food Wholesalers (may potentially include wholesale produce companies) | <input type="checkbox"/> Events |
| <input type="checkbox"/> Food distributors (may potentially include Sysco, US Foods, etc.) | <input type="checkbox"/> Venues (may potentially include airports, amusement parks, stadiums, theaters, racetracks) |
| <input type="checkbox"/> Food service providers (may potentially include Aramark, Sodexo, etc.) | <input type="checkbox"/> K-12 schools |
| <input type="checkbox"/> Restaurants | <input type="checkbox"/> Universities |
| <input type="checkbox"/> Corporate cafeterias | <input type="checkbox"/> Food producers (may potentially include farms and other growers) |
| | <input type="checkbox"/> Residential backyard gleaning |
| | <input type="checkbox"/> My organization does not rescue food directly from food donors |

10. How does your organization rescue food directly from food donors? (Please select all that apply.)

- Paid drivers
- Paid food delivery service (e.g. Postmates, DoorDash, etc.)
- Volunteer drivers
- Donor delivers food to your organization
- Other
- My organization does not rescue food directly from food donors

11. What do you require from participating donors? (i.e., box and refrigerate food, drive it to them, meet at certain hour etc.)

12. What type of infrastructure do you use, and what is the frequency of collection that you offer? (refrigerators, trucks etc.)

13. In which cities does your organization rescue food directly from food donors? (Please select all that apply.)

- Arcata
- Blue Lake
- Eureka
- Fortuna
- Ferndale
- McKinleyville
- Trinidad
- My organization does not rescue food directly from food donors

14. If your organization has any limitations on the quantity of food that you can accept at any given time, please explain what the limiting factor is.

15. Could your organization take more donations with your existing resources? If so, how much more food could you accept? (per day, week, or month).

- Yes
- No
- Maybe

17. If your organization is NOT interested in expanding the amount of food received, what are the limitations if any?

- Additional cold storage (includes refrigerators and freezers)
- Additional warehouse or facility space
- Vehicles (not refrigerated)
- Vehicles (refrigerated)
- Forklift/pallet jacks
- Funding to pay driver salaries
- Funding to hire additional warehouse staff
- Funding to hire additional food recovery coordinators
- Funding to hire other program staff
- Funding to train staff (including food safety training)
- More volunteers
- Food inventory software
- Food donation matching software
- Rescue supplies (e.g. boxes, crates, tote bags, etc.)
- Personal protective equipment (PPE)
- Kitchen supplies and equipment
- Food packaging supplies
- Food preserving supplies
- Other

18. Does your organization have any plans to create new or expand food rescue capacity? If yes, what are these plans?

19. Can you tell us about any challenges your organization faces with food donations or distributing food?

20. Do you know of any new food rescue organizations or meal donation services that are planning to open in the next year or so?

21. What can you tell us about the current level of need for food donations in Humboldt County? (Has anyone ever been turned away for lack of food? How often does your organization have food that goes uneaten?)

23. Is there any additional information regarding your organization's food rescue operations or resources/staffing/funding needs that you would like the county to be aware of?

Thank you for your participation!



Fecha: _____

Nombre de negocio: _____

CalRecycle designacion nivel (1 o 2): _____

Contacto Principal: _____

Telefono de contacto: _____

Encuesta de la Recuperacion de Alimentos Comestibles

Este encuesta seando administrado por Zero Waste Humboldt de nombre de la Ciudad de Arcata como parte de un subsidio del CalRecycle. El propósito de la encuesta es identificar donadores potenciales de alimentos comestibles en un esfuerzo por reducir el hambre en el condado, y ayudar empresas como la suya a cumplir con las leyes de California que exigen la reducción de desechos orgánicos. Los leyes son: AB 1826 – que exige el reciclaje obligatorio de residuos orgánicos para el sector comercial, y SB 1383 – que tiene un estrategia de reducir contaminantes climáticos. SB 1383 requiere que por lo menos 20% de los alimentos comestibles sean recuperados en el estado de California para el ano 2025. Las donaciones de alimentos comestibles en una vía para cumplir con estas leyes. La información que provee va a guiar nuestros esfuerzos a mejorar los sistemas de recuperar los alimentos comestibles en Arcata y Eureka.

1. Participa su negocio en donaciones de alimentos?

Si

No se

No

a. A quien donas?

(Food for People, Rescue Mission, otra despensa de alimentos, fincas/animales...)

b. Con que frecuencia?

(una vez cada semana, una vez cada mes....)

c. Tienes un estimado de la cantidad de alimentos que estas donando?

(semanalmente, mensualmente, o durante el año)

2. Tienes registros de las donaciones? Que tipo?
(libras de comida, cantineros, porciones de comida...)

3. Puedes estimar la porcion (%) de su basura que son alimentos comestibles?

4. Cuales son los tipos de las comidas que estan desechado en su negocio?

- | | |
|--|--|
| <input type="checkbox"/> Comida dejada en los platos | <input type="checkbox"/> Comidas descompuestas |
| <input type="checkbox"/> Comidas preparadas | <input type="checkbox"/> Carne descompuesta |
| <input type="checkbox"/> Comida empacada que es pasado la fecha de vencimiento | <input type="checkbox"/> Lácteos, huevos o alternativas a los lácteos / huevos en mal estado |
| <input type="checkbox"/> Otro: | |

5. **(Si no estas donando alimentos)** Seria interesada en donar alimentos extra? Generalmente, seria requerida a poner los alimentos en una cajita y ponerlo en la refrijirador hasta que el donacion puede ser recojada.

Si

No se

No

a. Si no está interesado, ¿nos puede decir por qué?

6. (Si no está donando alimentos) ¿Ha participado en programas de donación de alimentos en el pasado? Si su respuesta es afirmativa, ¿cuáles fueron las razones para no seguir participando?

7. Desde su perspectiva, ¿Cuáles son los mayores retos con las donaciones de alimentos comestibles?

8. ¿Tiene otras algunas preguntas o comentarios que quiera compartir?

Gracias por su participación!

APPENDIX C



California Waste Reduction Laws & Food Donation Protection Laws

What does your business need to know?

CA AB 1826 – MANDATORY COMMERCIAL ORGANICS RECYCLING

- Requires California businesses that generate more than 2yd³ of solid waste per week to arrange for organic waste recycling services
 - 2yd³ solid waste/week = all trash + recycling generated onsite

CA SB 1383 – SHORT-LIVED CLIMATE POLLUTANT REDUCTION STRATEGY

- Requires 75% reduction in statewide disposal of organic waste by 2025
- Goal that no less than 20% of edible food must be recovered for human consumption by 2025

In landfills, organic materials, like food scraps and yard trimmings, are broken down by bacteria to produce methane. Methane, a potent greenhouse gas, is shown to have a warming potential of 21 times that of carbon dioxide, significantly contributing to global climate change. Many experts see climate change as the greatest health challenge of this century, and one strategy to combat it is the reduction of methane from landfills. Food waste reduction and edible food donation are key strategies to address both food insecurity and climate change. Additionally, food donations are eligible for a tax deduction if donations are made to a 501(c)(3) non-profit organization / private charity.

CA AB 1219 - CALIFORNIA GOOD SAMARITAN FOOD DONATION ACT

The California Good Samaritan Food Donation Act provides liability protections for entities that make good faith donations of surplus food. AB 1219 clarifies and expands liability protections for donated surplus food by:

- Creating a more comprehensive list of entities covered by law
- Explicitly states that donation of past-date food is subject to liability protection
- Expands liability protection to donations made by food facilities, which are subject to food safety regulations and inspections, directly to individuals for consumption (direct donation).

FEDERAL GOOD SAMARITAN FOOD DONATION ACT

Donors are also protected under the Federal Bill Emerson Good Samaritan Food Donation Act: “a person or gleaner shall not be subject to civil or criminal liability arising from the nature, age, packaging, or condition or apparently wholesome food or an apparently fit grocery product that the person or gleaner donated in good faith to a nonprofit organization for ultimate distribution to needy individuals.”

APPENDIX D

Connecting donors to food recovery organizations and arranging timely transport requires significant paid and volunteer staff time. Record keeping requirements under SB 1383 will add a layer of complication that may be eased through the use of mobile applications and tracking software. The landscape for food recovery software is rapidly changing due to recent increase in food waste reduction laws in many states. It is not clear which software applications will ultimately be the right fit for the Humboldt County food recovery systems, however, the following applications were identified as worthy of further investigation.

Mobile Applications for Linking Potential Food Donors & Recipients

App Name	Link	Description
Copia	https://www.gocopia.com/	<ul style="list-style-type: none">• Businesses register to donate excess food at the website• Nonprofits register to collect food donations at the website• Once registered, the Copia App is available to arrange pickups and drop offs between the donors and recipients
Waste No Food	http://wastenofood.org/index	<ul style="list-style-type: none">• Donors and recipients register through the website• Once registered, download the app to post food donations and the time required to pick up• Organizations can request the food over the app and are held responsible for pickup
Recyclist	https://recyclist.co/tracker/	<ul style="list-style-type: none">• Software for tracking food waste prevention & recovery• Mobile app can be used to track donation dates, weights, and recipients• SB 1383 and AB 1826 compliance tracking and reporting
Food Cowboy	https://www.foodcowboy.com/	<ul style="list-style-type: none">• Uses location-based technology to connect excess food to food recovery organizations• For large loads of food transported by truck and rejected for market
