

CASE STUDY:
**Seacoast New Hampshire
Reusable Takeout Container Pilot**



PILOT PROGRAM SUMMARY

Reusable Seacoast was an eight-month pilot program that introduced reusable, returnable, double-walled, stainless steel takeout containers with silicone lids as an alternative to disposable containers in four participating restaurants in Portsmouth and Dover, New Hampshire. The pilot was led by Christina Dubin of Portsmouth and Kristine Baber of Dover. Christina is voluntary Board Chair for [Seacoast Climate Action Now \(CAN\)](#) and, at the beginning of the pilot, was Campaigns Coordinator for the [Surfrider Foundation New Hampshire Chapter](#). Kristine is Co-Chair of the Dover Plastic Reduction Group, and both are members of the [NH Network Plastics Working Group](#). Susan Smith and Joe Salisbury, members of the Dover group's Restaurant Team, also helped run the pilot. The fiscal agent was Seacoast CAN.

The Dover Plastic Reduction Group is an independent, nonpartisan, grassroots organization that works to reduce plastics and the toxic chemicals they carry. They are an affiliate group of [Beyond Plastics](#). Projects and activities of the group strive to curtail plastic pollution, protect human health and our environment, educate about the problems with plastic and recommend alternatives, and support legislation and legislators who share the group's goals.

Seacoast Climate Action Now (CAN) is a Seacoast New Hampshire based nonprofit organization working to serve communities by acting as a hub for community projects that draw down greenhouse gas emissions. The organization is run by a small volunteer working board. Reusable Seacoast was added as a "project" of the nonprofit hub.

Fundraising made it possible for the pilot to cover the costs for containers and tracking for four restaurants: Ceres Bakery and Ohana Kitchen in Portsmouth, and HiFi Burritos and Juniper Kitchen (formerly Roots) in Dover.

Although the pilot formally began in mid-March 2024, foundational work was initiated a year prior. The pilot was designed to last six months, but fund availability allowed support to be provided to the restaurants for an extra month. The pilot concluded on October 31, 2024.

PILOT MOTIVATION

New Hampshire food code (like other states) allows customers to place leftovers from their table into their own containers brought from home. However, Food Code prohibits customers' own containers from going into the kitchen to be filled; therefore, customers cannot bring

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containers from home for takeout. Personal beverage containers are allowed to be filled because that can be done outside of the kitchen and in a contact-free manner, eliminating potential contamination.

Protecting customers from potential contamination has the unintended consequence of not only creating massive amounts of single-use plastic and non-recyclable waste from takeout containers but also exposing customers to a host of hazardous chemicals, many of them known carcinogens and endocrine disruptors. The risk of an array of chemicals leaching from food packaging into food and beverages¹ is placing public health at risk.

Recycling is not a reasonable or realistic solution for single-use takeout containers. Less than 6% of plastics are recycled in the U.S.² The plastics that do get recycled have higher levels of toxic chemicals than virgin plastic and can only be recycled a few times before they end up in a landfill or incinerated.³

Bioplastics, or so-called "compostable" plastics, are not the solution either. They are unregulated and can include fossil fuel-based plastic as well as the same chemicals as petroleum-based plastic, are more costly for restaurants, and require an industrial facility to process the material.⁴ There is understandable consumer confusion between bioplastics and fossil fuel plastics, causing contamination of both the recycling and organics diversion streams which we need to keep clean in order for diversion to be effective.

The solution is the utilization of non-plastic, reusable containers washed and sanitized in compliance with health code. In both Portsmouth and Dover, restaurants are allowed to provide reusable containers for takeout food, provided that they clean and sanitize those containers prior to reuse, just as they do dishware for on-site dining.

PILOT PROCESS

Prior to beginning work on the pilot, program managers did general research on alternatives to plastics for restaurants and reusable container possibilities. Two of the primary sources were Good Start Packaging marketing and sales staff and the Director of Hospitality at UNH.

Reusable Seacoast volunteers met with representatives of the Good Start packaging company which has corporate offices in New Hampshire and offers "compostable" containers. The company claims their containers are made of "compostable" materials from renewable plant

¹ <https://www.nature.com/articles/s41370-024-00718-2>

² <https://www.beyondplastics.org/publications/us-plastics-recycling-rate>

³ <https://www.greenpeace.org/usa/news/new-greenpeace-report-calls-out-toxic-hazards-of-recycled-plastic-as-global-plastics-treaty-negotiations-resume-in-paris/>

⁴ <https://www.beyondplastics.org/publications/demystifying-bioplastics>

fibers, or PLA plant-based bioplastic. The boxes offered are described as non-toxic, gluten-free, eco-friendly, and have no plastic or wax linings.

Containers made using PLAs are problematic because PLA is difficult to degrade at natural environment temperature.⁵ PLA products are stable in the soil—only one 1% degrades after one hundred years in a landfill. The PLA composting process includes three steps: separation, grinding, and compost degradation; this means commercial composting is necessary for containers to actually be composted.

Good Start offers no reusable containers, but was very interested in the idea of a reusable takeout container system. Contacts at the company felt that their CEO, Ken Jacobus, who is committed to reducing plastic, might be interested in such a project.

Reusable Seacoast volunteers also had discussions in February 2023 with the Director of Hospitality at the University of New Hampshire, about their Reusable To-Go Box program. UNH started a program about a decade ago to offer polypropylene reusable to-go boxes to students with certain meal plans. UNH originally charged a one-time fee of \$3.25 per box, which has increased to \$9.00. When a diner returns the used to-go box, they receive a clean one at NO charge or receive a green “exchange loop” used to claim a new box at a later time. The reusable to-go box is also available at the Union Court, where customers receive a twenty-five-cent discount on their meal. They can also choose the reusable to-go box as an option when ordering on Grubhub. The UNH system has no tracking capability for the containers.

Reusable Seacoast volunteers explored the possibility of expanding the UNH system to restaurants in surrounding communities such as Durham and Dover. Although there was some initial interest, the UNH Director of Hospitality decided that it was not something that was feasible at the time.

Research on Programs and Platforms

After those interviews, the next step taken by program managers was to research existing programs and tracking platforms. By tapping into professional networks, Reusable Seacoast program managers connected with [Reusable San Mateo](#) in San Mateo, California, and [Island Eats](#) in Martha’s Vineyard.

At the time, Reusable San Mateo had three restaurants and 26 unique customers. 400 followers on Instagram and 400-500 people on their mailing list. The program is still active, managed by a group of volunteers using the FoodWare platform and FoodWare’s stainless steel containers with silicone lids. Suggestions from the volunteer group included selecting restaurants where the customer base is younger, being on site to walk customers through

⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8199738/>

downloading their app, spending time with staff to practice scripts offering containers to customers, hosting launch parties, and setting up returns in an existing bus bin versus a trash can so as not to confuse customers.

Island Eats, on the island of Martha’s Vineyard, operates with more of a closed-loop system with 12 participating restaurants at the time, having since grown to 18. Stainless steel bowls, from Usefull, are used with custom silicone lids designed by the program lead to fit snugly on containers. The program is run by a single volunteer who rebalances containers as needed.

Existing companies offering tracking platforms for reusable containers was another area of research. [Recirclable](#) and [FoodWare](#) were selected as possibilities to interview prior to the pilot.

Recirclable and the co-founders are based in Massachusetts. They modeled Recirclable after programs in Europe which they encountered while abroad. Recirclable uses [Preserve’s](#) polypropylene plastic clamshell style containers rated to 1,000 uses which, their website claims, are free of BPA and are made in the U.S.A. with 50% recycled plastic. Each container is fitted with a QR code sticker. The Recirclable platform is downloaded as an app onto a smartphone and is integrated with a restaurant’s Point of Sale system (POS) which, at the time of interview, included Square with Toast integration in progress. This was said to help minimize missing containers as it required restaurant staff to check the containers out and removed accountability from the customer. The cost to the restaurant is a .50 cent per container rental fee if restaurants didn’t purchase the containers and a charge per checkout which ranged from \$20-70/ month depending on the restaurant. The system can be used with other containers, sourced and purchased by the local program managers or restaurants.

FoodWare and their co-founders are based in Northern California. The platform is downloaded as an app onto a customer’s smartphone but does not currently integrate with a restaurant’s POS. The accountability is on the customer to scan the container to check-out and to check-

# Containers	Monthly Cost
Up to 35	\$50.00
50	\$68.00
100	\$132.00

in. FoodWare offers polypropylene containers, branded stainless steel containers with silicone lids, or glass jars which are fitted with QR code stickers able to withstand commercial dishwashing. There is a setup fee per restaurant ranging from \$100-\$150. The containers are provided as part of the monthly subscription price and restaurants are charged based on a unit count. At the time of the pilot, the pricing for stainless steel containers and glass jars were as

listed in the table for the quantities being considered by program managers and FoodWare claimed a 100% return rate.

Reusable Seacoast program managers ultimately chose FoodWare’s containers and platform to avoid plastic containers due to health risks, and to avoid the upfront cost of purchasing containers outright. A subscription approach to pricing made it easier to anticipate monthly costs and to determine the amount of funding needed for the pilot. The choice was also made to keep the responsibility of checking containers in and out on the customer as opposed to the business.

Food Code Compliance

Each state can choose to adopt the latest FDA Food Code. New Hampshire Department of Health and Human Services adopted the 2017 FDA Food Code which included the allowance for restaurant-provided takeout containers as long as they are washed, sanitized, and inspected by the restaurant after being returned by the customer.

In New Hampshire there are 15 self-inspecting municipalities that the New Hampshire Bureau of Food Protection has granted authority to for the licensing of facilities meeting the definitions of a "food service establishment" or a "food processing plant" under RSA 143-A:3 IV and IV-a.⁶ The municipality is then responsible for a minimum of two inspections per year at those facilities.

Portsmouth and Dover are both self-inspecting municipalities. Portsmouth City Council voted to adopt the 2022 FDA food code on June 20, 2023, which included the 2017 updates⁷. Dover currently is adhering to the 2017 FDA Food Code. Program managers met with Health Officers in each city to discuss the pilot program before launching to ensure compliance.

Initial Timeline

The timeline below was created during the planning phase and presented to businesses and potential funders. Flexibility in the timeline was necessary to respond to unexpected issues like one restaurant closing for nearly a month and to provide an adequate period of assessment. Overall, the entire timeline was lengthened, particularly in writing the case study which took about three months longer than expected to publish due to challenges in data gathering and limitations of volunteer time. In post-pilot conversations with volunteers and with FoodWare, the decision was made not to pursue funding for a paid program manager at the time of publishing the case study.

Phase 1: Months 1-6	Table on-site and off-site, build a following on social media, and offer public presentations to encourage customers to download the FoodWare app and checkout containers at two restaurants in Portsmouth and two restaurants in
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⁶ <https://www.dhhs.nh.gov/sites/g/files/ehbemt476/files/documents/2021-11/fp-selfinspect.pdf>

⁷ <https://files.portsmouthnh.gov/agendas/2023/citycouncil/cc062023min.pdf> and <https://files.cityofportsmouth.com/cityclerk/Chapter4.pdf>

	Dover. Support restaurant managers/owners via text, phone calls, and on-site visits while collecting data.
Phase 2: Months 6-9	Draft and publish a case study including specific cost savings, waste reduction, frequency of reusable check-outs, lessons learned, recommendations.
Phase 3: Months 9-12	Secure funding for a program manager to work with platform founders on training new restaurant managers/staff, installing signage, setting up return stations, and rebalancing containers between participating restaurants.

Pilot Funding

Funding for the pilot was secured by the project managers via outreach to businesses and individuals supportive of the purpose and process of the pilot. Among the donors were Eight Legged Octopus and replenish, both in Dover, an anonymous Dover resident, and a Portsmouth resident. A \$1000 grant was secured from Boston-based [Community Action Works](#).

Seacoast Climate Action Now served as fiscal agent for the pilot. A fiscal agent is a nonprofit organization that agrees to accept and be responsible for grant funds on behalf of projects such as this, particularly if donors require a tax deduction receipt.

Selection of Participating Restaurants

The four participating restaurants were selected from those identified as voluntary [Skip the Stuff](#) campaign participants or certified as [Ocean Friendly Restaurants](#) by the Surfrider Foundation. Due to these previous campaign efforts, program managers had extensive information from questionnaires and in-person meetings about the restaurants, their attitudes toward plastic reduction, and what they already were doing to reduce plastic and waste. Restaurant owners identified as good prospects for the pilot were once again interviewed to assess their interest and capacity to complete the pilot. The owners and staff at these restaurants agreed to receive training, set up container collection sites, integrate their POS systems with a tracking platform if necessary, and determine the number and sizes of containers that would fit their takeout needs for an identified portion of their menu.

The restaurants selected to participate were:



HiFi Burrito is a small, community-focused restaurant serving up healthy, innovative, and affordable cuisine rooted in traditional Mexican flavors. The restaurant has approx. 10 tables for on-site dining and a busy takeout business. They are located on Main St. in Dover and have ample parking. They have been at this location for approximately two years. Ordering is

done online, via phone, or in-person. Food scraps are collected on-site and picked up by Mr. Fox Composting.



Juniper Kitchen, previously named Roots Cafe and Juice Bar, is located on a side street in downtown Dover. It was purchased by its current owner in late 2022 and rebranded as Juniper Kitchen in 2024 as their menu and vision evolved. Their space is small,

but vibrant, and they offer a scratch-made menu, featuring breakfast & lunch, gluten-free baked goods, smoothies, acai bowls, and more. Everything on their menu is 100% plant-based and can be made gluten-free as well. They have an explicit commitment to the community and to sustainability, packaging takeout in BPI-certified "compostable" packaging. Food scraps are collected on-site and picked up by Mr. Fox Composting. Ordering is done online, via phone, or in-person.



Ceres Bakery is a bakery and cafe in Portsmouth founded in 1980 with a regular and loyal customer base. The food is made from scratch and portions are generous and reasonably priced. They offer on-site dining on reusable dishware and takeout packaged in a mix of single-use materials. Food scraps are collected on-site and picked up by Mr. Fox Composting. The entryway and ordering area are galley-style. Ordering is by phone or in-person only.



Ohana Kitchen in Portsmouth opened in December 2017 as the first of three locations. They offer Hawaiian-inspired poké bowls and sushi burritos in BPI certified "compostable" packaging which is collected on-site with food scraps and picked up by Mr. Fox Composting. Ordering is done online, via phone, or in-person. Onsite dining is available using single-use packaging.

Procurement and Distribution of Stainless-Steel Containers

In February 2024, 215 containers were shipped from Berkeley, CA, to Portsmouth, NH—130 large containers and 85 small with a future shipment of 10 containers agreed upon (see cost below in "Quantitative Analysis"). Each restaurant was provided with 30-50 containers with a choice between two sizes: 30 oz (small) and 50 oz (large). The 30 oz FoodWare container was the same size as the single-use containers used by Ohana and Ceres and there was a preference for that size across three out of four restaurants. Ceres started with 50 small containers (later giving 10 to Ohana) and Ohana chose 20 small and 10 large. Hi-Fi chose to use all large containers and Juniper Kitchen chose 25 of each size and later gave 10 to Ohana.

Tracking and Sanitization of Containers

The containers were tracked with a system similar to checking out library books. The customer would download the FoodWare application on their smartphone, scan the vendor QR code upon arrival at the restaurant, and then scan the QR code on their containers. Through the FoodWare platform there is the ability to track personal impact using a variety of metrics such as the number of single-use containers avoided and CO2 emissions saved.



Restaurants were responsible for washing and sanitizing the used containers before reuse, just as they are for onsite reusable wares. Customers had two weeks to return the containers after which point a \$15 fee would be charged to the credit card tied to their account in the FoodWare app. Data showed that customers consistently returned containers within one week with a 100% return rate.

Marketing and Community Engagement

Once the pilot was underway, with all containers distributed and staff trained, program managers focused on marketing the program in each community. This included setting up an Instagram and Facebook account and posting regularly as well as educating the community through presentations to the Dover Rotary, tabling events at the Dover Public Library, Portsmouth Farmers Market, Dover Farmers Market, Kittery Film Festival, and Dover Apple Harvest Day.

Regular updates were reported out at the bi-weekly or monthly meetings of the NH Network Plastics Working Group, where groups and advocates throughout the state showed interest in the project and replication in their own communities. Four months into the pilot, program managers drafted a press release for Plastic Free July and although the story was not picked up by Seacoast outlets, an article was published in the [Boston Globe's NH Morning Report](#). In September an article was published in [CleanTechnica](#).

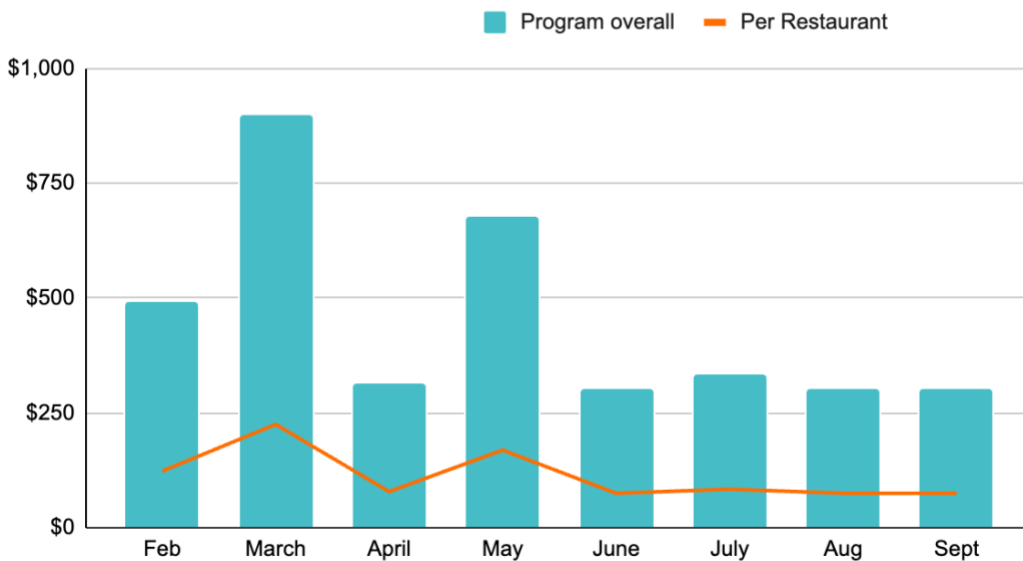


Left: Ohana Kitchen Right: HiFi Burritos team

Quantitative Analysis

Reusable Seacoast began the pilot program with \$5,000 in funds. The first financial transaction occurred in February 2024 with payment for the shipping of the containers, payment for the first month, and a set-up fee of \$150 per restaurant. For each month that followed, the cost for the platform and container usage was set at \$300 (\$75 per restaurant). However, additional costs were incurred for printed signage and replacement lids because the original lids fit poorly (\$376 for 215 lids in May). As shown in the chart below, the cost of the program was front-loaded.

Subtotals Per Month (paid by Reusable Seacoast)

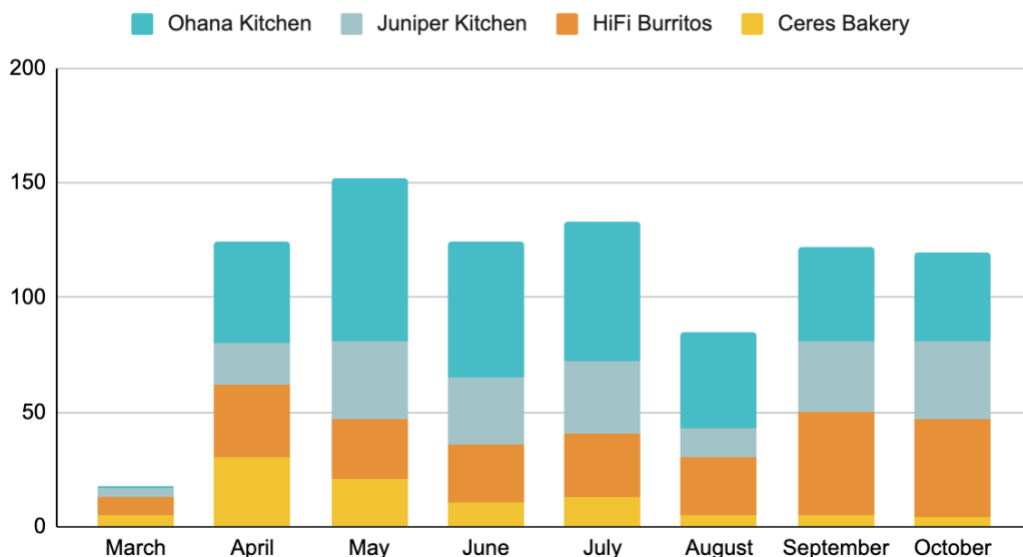


Container Usage

From March through the end of October, there were a total of 878 containers checked out across four restaurants. From August 5, 2024 - September 1, 2024, Juniper Kitchen was closed due to flooding and reconstruction.

The restaurants listed in the table on page 10 are in order of the quantity of container checkouts during the pilot. Potential factors that determined the amount of checkouts include daily number of customers, percentage of takeout versus dine-in customers, signage location and staff communication about the option of a reusable container, and online ordering capability with a checkbox for the reusable option.

Reusable Takeout Container Usage (2024)



As of February 1, 2025, during the drafting of the case study, there were 732 total orders, 143 unique customers and **over 1K reusable containers borrowed**.

A 100% return rate was maintained throughout the pilot. From November through February this data was measured across the three restaurants that continued the FoodWare subscription post pilot.

Cost Savings

Restaurants were unwilling to share the cost of disposables and compost service; therefore, exact cost savings were not able to be calculated for this case study. However, three out of the four pilot restaurants were using only "compostable" products prior to the pilot and have a [Mr. Fox Composting](#) subscription. Given this, pricing for compostable single-use containers from Mr. Fox can be substituted to calculate the breakeven point where the FoodWare subscription cost is equal to what the restaurant would pay for compostable containers. The cost of a 32 oz "compostable" salad bowl with lid is 42 cents per unit, which means that a restaurant using compostable single-use salad bowls would need **119 checkouts per month to break even on a \$50 per month reusable subscription tier**. This is equal to **17 checkouts per week** if the restaurant is open daily.

According to national data, Granite Staters are second in the nation for spending on takeout, with an average weekly expenditure of \$99.81 per person, the equivalent to about \$5,190 annually.⁸ All of that takeout comes with an additional price of managing waste created by

⁸ <https://www.thecookierookie.com/the-us-dinner-time-report/>

containers and potential exposure to PFAS and other chemicals which can migrate out of the packaging into food and beverages.⁹

PROCESS AND OUTCOME ANALYSIS

Restaurant Feedback

Restaurants reported that the reusable container pilot went well and containers functioned as needed, particularly after receiving new lids. The two original container sizes were appropriate for Juniper Kitchen. HiFi Burritos had only the larger 48 oz containers which they found were still too small for some of their entrees. They appreciated receiving 70 oz containers. Ceres Bakery selected the small container so that staff would portion appropriately which worked well and Ohana Kitchen also chose a majority of small containers which aligned with their portioning.

HiFi owners thought that distributing more information to customers would be helpful for the program. They believed that having more information online and available to customers through printed materials would work better, but they did not have the time to create and put more information online themselves. They thought a handout with information about the program and step-by-step instructions for using it, including a QR code, would be helpful to get more customers using reusables. This would relieve staff from explaining the process to a customer using it for the first time. They also suggested a printed instruction sheet that customers could take home and noted that a card to slip into takeout orders could be helpful.

Restaurants reported that overall customers returned rinsed or washed containers. There was only one instance of a dirty container returned to HiFi. After that instance, program managers posted on Reusable Seacoast social media, asking customers to wash the containers and there was never another issue reported.

All four restaurants' owners or managers expressed that it was exciting to be participating in the pilot and they believed it was important to be part of the process. They shared that customers were innately excited about the program. After customers inquired, they would often begin using the reusable containers.

Both HiFi and Juniper were pleased with the program which was, "ethically aligned and cohesive with their values." The owner of Juniper Kitchen noted that with the addition of reusable containers, their restaurant was "able to demonstrate their values to the community, not just talk about them." HiFi shared that the system allows customers who do not want to contribute more plastic to the environment to enjoy takeout. They did note that they did not want, and could not afford, to lose customers who don't support such options.

⁹ <https://www.mdpi.com/2304-8158/10/7/1443>

Ceres Bakery found it valuable that the reusable containers reduced the number of "compostable" and plastic containers and were pleased with positive feedback from customers.

Staff Feedback

Staff generally liked the system. Juniper Kitchen indicated that staff didn't seem to find much difference between the "compostable" containers and the reusables in regard to filling orders. However, staff found it difficult to manage when customers became frustrated with the app. HiFi reported that staff were not going out of their way to promote the program because of the time it takes to explain the process and help customers with the app. Ceres noted that when there were long lines, the system added time to the check-out process.

In general, staff did not typically ask walk-in or phone-in customers if they wanted reusable containers. They also did not routinely mention the reusable containers when customers picked up orders in single-use containers because of time constraints and the fast-paced nature of order pick-ups. However, Hi-Fi Burritos, Juniper Kitchen and Ohana Kitchen all added a checkbox for a reusable container to items listed in their online ordering platform.

Customer Feedback

Restaurants reported that customers who used the system were generally happy with it. Some customers, particularly when using the app for the first time, required more assistance and some would select reusable containers without understanding the process. HiFi mentioned having to move the customer's order to a single-use container when they did not want to participate.

Several customers provided feedback to FoodWare about problems with the original lids. Although customers generally found the process to be smooth and the system easy to use, there were several who suggested improvement including streamlining the ordering process and better integration between the FoodWare app and point-of-sale apps.

Containers– Quantity, Handling, and Storage

Restaurants were generally satisfied with the number of containers provided.

- **HiFi Burritos** began the pilot with 50 large containers and then added another 10 jumbo containers. At the end of the pilot, they said they could operate with 20 large and 20 jumbo containers. Post-pilot, HiFi decided to shift to only jumbo containers.
- **Juniper Kitchen** began with 25 small and 25 large containers and kept additional containers in storage. They indicated they could operate with 25 or 26 of each size.
- **Ceres Bakery** began the pilot with 50 small containers and after month two, when checkouts totaled 30, the amount decreased to under 10 checkouts for the last three

months of the pilot. The lids and containers were stored on baker's racks in the kitchen which is open to the restaurant. Flour falling on the lids and sticking was an ongoing issue.

- **Ohana Kitchen** began with 10 large containers and 20 small containers. They later received another 10 small and after the first month, checkouts ranged from 25-45 per month. The containers were stored on a shelf near the prep area.

There were relatively no reported problems with handling and storage of the containers, with staff finding containers easy to clean. Only one container was returned dirty and one of the lids ripped along the lip during the pilot. Ceres Bakery shared that some customers handed containers over the counter when returning them instead of placing them in the return bin.

Signage

Restaurants found the provided signage to be adequate but shared that having a few extra signs might have been helpful to customers. The signage below was used in the restaurants, usually at the counter or near an entry door. It also was used for public education when tabling at community events. Ohana proposed a window decal with the restaurant's QR code near the menu. HiFi suggested an informational brochure with more in-depth material about what the program is, why it was started, and how to use it. They believed that customers were very interested in the history and "story" of the system.



Tracking Platform

According to the restaurants, a few customers had some difficulty the first time they used the app, but after that had no further challenge. There were a few issues with scanning the QR code, but no problems for regular customers. For some Juniper customers, when they were connected to Wifi the app did not load properly which they found frustrating. FoodWare helped resolve any unusual issues with the app.

Ceres Bakery mentioned that some customers didn't want to give their phone camera permission and therefore the customer had to manually enter the vendor code, which took extra time and left an opportunity for a data entry mistake.

Program Challenges

The poor fit of the original silicone lids was the only drawback to the reusable containers. Program managers did not want to jeopardize uptake by customers, so the choice was made to use pilot funds for new, better fitting lids ordered by FoodWare from a vendor in China that they selected. Neither set of lids were produced by the same manufacturer that produced the stainless-steel container and a sample container was not provided to the manufacturer to ensure fit. Due to this, the second lids fit better but not snugly.

Another challenge was around timely communications with FoodWare given that the company is based in California and on Pacific Time while the program ran on Eastern Time. Given that the volunteer program managers were on the ground, they responded by text, phone call, or on-site visits to address any issues restaurants had.

The reluctance of restaurant staff to mention the reusable option with each order potentially limited customer uptake. Restaurant staff shared that they are often too busy to ask customers if they wanted the reusable option. While program managers spent time on-site within the first few months of the program, there was not capacity to be there throughout the pilot to ensure continued new uptake.

With only two restaurants in each city, there wasn't much cross pollination (i.e., containers borrowed from one restaurant being returned to another), so there was no data collected on how many times per week containers would need to be rebalanced for restaurants at the 35-container level or beyond. Program managers only took containers from one restaurant to another a few times throughout the entire pilot.

Scaling up the program and adding more restaurants post-pilot was identified as a challenge due to the current model not generating revenue for the subscription company which is moving forward with a focus on closed-loop campus systems.

Lessons Learned & Recommendations

Select a system that is easy for customers AND businesses.

It was reported by customers that it would be better if food could be ordered via the restaurant and the container checkout completed online during that process. Scanning the QR code with a phone can add a burden on the customer that presents a barrier to continued usage.

Draw up a contract before the start of the pilot.

At the start of the pilot, a Memorandum of Understanding was discussed but never drafted. A clear, written contract should be in place before beginning a working arrangement with a company providing containers and tracking. There were several unanticipated costs during the pilot that a written contract would have clarified for both parties.

Decide on the use of a fiscal sponsor and assemble a committee before beginning.

Although you do not need to partner with a nonprofit to raise funds, you do if you want to provide your donors with a tax deduction receipt. It is a best practice, however, to keep a separate bank account and good accounting records of your activities.

Make sure to have adequate "person power" for the project.

The more dedicated volunteers running the pilot, the more the work is shared. While Reusable Seacoast initially began with two program managers, two to three additional volunteers joined to help in one city, which was very beneficial.

Look for larger, "closed-loop" locations to host the pilot.

Campuses and senior living facilities are good potential pilot hosts, as are companies with a cafeteria, hospitals, and ski lodges where customers consume their food on the grounds and can return their container before leaving. The higher traffic and volume ensure that these places will more quickly see the financial value in converting to reusable containers.

Budget for setbacks.

It is important to anticipate unexpected delays or setbacks that may interfere with the restaurant's usage of the system and create a need for extra pilot time as in the case of Juniper Kitchen, which had a flood in the building and had to close for a month. It is necessary to maintain more funds than budgeted costs so that the pilot can be extended if necessary and unanticipated costs such as lid replacement can be covered.

Ensure the container is of high quality and functions as desired.

The type of container chosen is critical. Ideally the container and the lid should be purchased from the same manufacturer with demonstrated quality and fit. It is unlikely that most restaurants, particularly within the first year, will need more than 30 or 35 containers as they are ramping up the program.

Dial in the return window and non-return fee without the need for a deposit.

The return window of two weeks was plenty, with most customers returning within one week so it is possible that a shorter time frame could be given.

It was important to the pilot managers that the program be accessible. Therefore, there was no deposit charged for the containers and, with a 100% return rate, there was no

demonstrated need for a deposit. Since customers enter their credit card information in order to participate, the container can be paid for if it isn't returned during the allotted time frame.

Assign a contact for each city/town, schedule adequate training time with restaurant staff, and set the expectation for on-site visits for the duration of the pilot.

The limited contact that program managers had with all staff likely prevented more customer uptake. A future program would benefit from more regular staff training on how to integrate the offer of a reusable option into ordering methods.

Have a dedicated contact in each city/town who can rebalance containers and be the point of contact for restaurants throughout the pilot. This person should also be responsible for securing signage and providing a one-pager with basic information about the program. Signage and other informational documents should be consistent across participating restaurants to ensure customer clarity about key aspects of the program.

Ensure the return station can accept increased traffic.

The return station should be given a thorough amount of thought and consideration. Although the Reusable Seacoast pilot functioned well with three restaurants using their existing self-bussing station for returns and one restaurant starting a new reusable return bin which started to double for on-site reusables, this may not continue to work well if scaled up to a higher number of containers. This is also a potential blind spot in container returns and could allow for containers to be returned without customers rinsing or washing before return. Although this is not a problem for containers used on-site or used and returned the same day, it could be for containers borrowed at length.

Keep earned media and social media engagement high.

Reusable Seacoast pilot managers waited a few months before submitting a press release and found a reluctance to take the story on by local media outlets who have gone to primarily syndicated content. It may take submitting to several outlets before the pilot is covered so begin early. It is also important to connect the story to recent events or known environmental movement calendar dates like "Earth Day" or "Plastic Free July".

A Meta account with Instagram and Facebook posts proved to be popular during the Reusable Seacoast pilot. Posting at least daily, tagging restaurants, locations and using appropriate hashtags are all important to ensure visibility on the platform. It is also important to mutually boost posts with other green businesses in the area.

Encourage restaurants to include information about the reusable program on their website and other social media.

Including more information on their website and other platforms helps customers learn about the program and encourages them to ask questions. [Juniper Kitchen](#), for example, has a whole section on commitment to sustainability on their website.

Offer incentives to customers.

Some options for promotion during the pilot include discounts for first-time users, ongoing discounts equal to the cost of a disposable container via a rewards program, pairing a deposit-free reusable takeout program with a charge for disposable, including “compostable” containers.

Share information about the program at community events.

Participating in Earth Day and other community events, tabling at farmers’ markets, and presenting about the program to religious, environmental, or private groups can widen the reach of the program. Participants can ask questions and learn how to easily access the program before they go to the restaurants. Coupons for incentives also can be made available to a larger audience through these activities.

Look for potential partnerships with businesses in the community.

Event venues, like Prescott Park in Portsmouth and Henry Law Park in Dover, were thought of but not explored due to lack of capacity. These types of partnerships are something to identify and pursue early on.

CONCLUSION

Overall, the reusable container system was well received by both businesses and customers. This pilot provided evidence that such a system is effective in replacing single-use takeout containers with returnable, reusable containers which reduces the amount of plastic waste entering New Hampshire landfills and lowers greenhouse gas emissions— both of which are objectives within the state’s [Comprehensive Climate Action Plan](#) currently in development. Importantly, by using reusable containers, customers also avoid toxic chemicals that can migrate into food and beverages from plastic or bioplastic containers, including those marketed as “compostable.”

Business owners involved in the pilot were excited to move away from single-use to reuse, to be leaders in the state and to save money in the long run. Customers felt good about taking part in a solution to address the health and environmental impacts of single-use plastics. This pilot demonstrated that businesses and customers in the Seacoast are ready to do more to reduce single-use waste. It also demonstrates there is opportunity to scale up a system to serve restaurants throughout the state as well as closed-loop businesses and institutions including colleges, universities, hospitals, and senior living facilities that would increase the impact exponentially.