

CASE STUDY

CHALLENGE

Lincoln restaurants, bars, and offices face multiple challenges with waste reduction and diversion, resulting in low recycling rates. A landfill cardboard ban, effective April 2018, adds urgency to this problem. Downtown Lincoln is plagued by alley congestion. Multi-tenant buildings, limited space for recycling containers and multiple haulers are factors. The cost of new recycling services and lack of recycling know-how are also barriers.

SOLUTION

Create a shared recycling and hauling system: a cooperative effort by a group of businesses to reduce hauling costs and maximize space efficiency through the use of a common hauler, shared dumpsters, and shared hauling services.

SHARED RECYCLING & HAULING SYSTEMS



Implementation

A Step-by-step Approach to Implementing a Shared Hauling System

1. *Be neighborly* - Discuss creating a shared hauling and recycling program with other business owners and managers on your block.
2. *Find out what's in your trash* - Visit all areas of your building and make a list of recyclables, organics and landfill items generated. Look for ways your organization could be reducing waste or reusing materials.
3. *Determine outdoor container needs* - Utilizing the waste information from each business, determine how many recycling, composting, and landfill dumpsters will be needed.
4. *Ask for bids* - Based on your assessment of the outdoor container needs, request bids from multiple haulers, including those with favorable reviews from participating organizations.
5. *Determine indoor container and labeling needs* - Inventory your current container situation and evaluate their usefulness. Every landfill container should have a recycling container next to it and each container should be labeled. Color-coded containers work best.
6. *Select bid* - Host a meeting with all of the participants and discuss the bids. Determine which bid best fits your block's needs based on price, materials collected, and quality of service.
7. *Purchase labels and containers* - Once the bid is selected, purchase the appropriate containers and labels for the newly created program. Labels for the outdoor containers should be purchased too.
8. *Make adjustments as needed* - If there are problems with contamination, access, or if you want to expand the program to other businesses, contact your hauler or hold a group meeting to discuss possible solutions.

Training

Businesses with high employee turnover rates, such as bars and restaurants, have to work harder to educate and enforce recycling policies. Contamination is one of the biggest problems for the recycling industry. The two most effective ways to combat contamination are ongoing employee training and labeling of containers. Good labels help employees and customers identify where to place specific materials. The most effective labels have photo-images of acceptable materials, and are color-coded (blue=recycle, black=landfill, green=organics).



CASE STUDY

RECYCLABLES

COLLECTED:

Mixed Recycling:

- Newspapers
- Magazines
- Mixed Paper
- Water/Soda Bottles Containers
- Detergent Bottles
- Cleaning Solutions Bottles
- Tin & Steel Food Cans
- Aluminum Cans
- Plastics 1-7

Cardboard Only Recycling:

- Cardboard Cartons
- Frozen Food Cartons
- Flattened Cardboard
- Pasta Boxes

Compost:

- Food
- Paper Towels
- Soiled Napkins
- Kleenex/Tissues
- Coffee Grounds



Overview

Through a grant funded by the Nebraska Department of Environmental Quality, the Nebraska Recycling Council implemented a shared recycling and hauling system for selected businesses in downtown Lincoln. Our goal was to divert valuable materials from the landfill, reduce alley congestion, and increase efficiencies.

Businesses on one block, the Arbor Day Foundation, Qdoba, and Husker Headquarters participated in the program. The project demonstrated how neighborly cooperation and open dialogue can result in cost savings and increased waste diversion. Panera Bread will join the program once the contract with their current hauler has ended.

Waste Reduction Program Results

Waste diversion percentage:	50%
Waste diverted from landfill:	89 tons per year
Composting diverted from landfill:	3.6 tons per year
Annual savings:	\$3,600.00

Key Program Elements

Benchmarking & Establishing Goals

With assistance from NRC staff, Arbor Day Foundation conducted a week-long sort to weigh and assess their waste and recycling streams. The waste assessment revealed that over 50 percent of the waste generated could be composted. It also showed that, despite easy access to recycling bins, there was significant contamination, and almost 45 percent of recyclable materials were being landfilled.

The Waste Assessment helped Arbor Day devise solutions for waste reduction and increase recycling. Employees who helped with the sort became unexpected catalysts for change and champions for better waste diversion practices. Arbor Day launched a new composting program using Big Red Worms, a local vermiculture composting operation, and hosted an all-staff training session on recycling, recognizing the importance of employee education in successful waste reduction programs.



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- Glass

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SHARED RECYCLING & HAULING SYSTEMS



Overview

The Bourbon Theatre, The Fat Toad Pub, and Yia Yia's share an alley on one block in downtown Lincoln. Their cooperation demonstrated how neighborly cooperation and open dialogue can result in cost savings and increased waste diversion.

Waste Reduction Program Results

Waste diversion percentage:	41%
Waste diverted from landfill:	24 tons per year
Annual savings:	\$460.00

Key Program Elements

Benchmarking & Establishing Goals

None of the participating businesses had a formal recycling program prior to the shared hauling and recycling program, so their recycling rate increased by 100 percent. However, Yia Yia's manager took their recyclables to the City of Lincoln drop off sites on her own.

With assistance from NRC staff, The Fat Toad Pub conducted a waste sort to weigh and assess their waste and recycling streams. The waste sort revealed that over 79 percent of the total waste generated on one Saturday night was recyclable. It also showed that keeping contamination out of the recycling stream during peak business hours is challenging because of the rapid pace of work.

Frequent monitoring of the dumpsters for contamination and sharing the results with the employees played a key role in improving waste diversion and decreasing contamination.



CASE STUDY

WRRAP



Waste Reduction and Recycling
Assistance Program

LESSONS LEARNED

- It is not necessary for every organization to have its own dumpster or tote.
- Sharing containers makes for cleaner and less congested alleyways.
- Shared hauling reduces wear and tear on alleys (from 5 trucks to only 1 truck daily in this case).
- Working with off-site corporate offices can be challenging. It's important to contact the people managing waste collection and hauling at each business.
- Businesses reported that training and educational materials provided by Nebraska Recycling Council was the most helpful.
- The major contaminants for the bars included limes, straws, napkins and liquids from ice and unfinished drinks.
- Start with a "back of house" recycling program before introducing recycling to your customers.
- Consider putting locks on recycling containers to assist in the prevention of contamination.

Waste Reduction and Recycling Assistance Program

The City of Lincoln has established a Waste Reduction and Recycling Assistance Program (WRRAP) for commercial establishments starting new or expanded recycling programs. This includes government facilities; schools; non-profit organizations, multi-family housing complexes; institutions, industries and businesses. The City will reimburse an establishment up to \$750 for start-up and monthly recycling collection costs for the first six months of service. All participating businesses were encouraged to take advantage of this opportunity. For more information visit: <https://lincoln.ne.gov/city/pworks/solid-waste/recycle/wrrap/>.

Participant Surveys

Participating businesses were surveyed to evaluate how to better implement shared hauling services in the future. The survey found that group meetings and educational materials were the most helpful for successful implementation. Based on a scale of 1-10, with 10 being the most likely and 1 being the least likely, the mean for implementing a shared system without Nebraska Recycling Council training for employees was 4.5. The mean for the likelihood of a business participating in a shared system that didn't save them money was 7, and the mean for a willingness to including other businesses in the shared systems was 8.

Nebraska Recycling Council

Nebraska Recycling Council is a statewide, member-based, charitable non-profit supporting collaboration between communities, businesses, solid waste and recycling industries to improve recycling collection and infrastructure. Our mission is to maximize the economic and environmental benefits of resource recovery in Nebraska. We offer recycling information, grants, education and training, publications, services and an annual awards luncheon. Visit www.nrcne.org or call 402-436-2384.

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NEBRASKA RECYCLING COUNCIL