

2021

WESTERN NEBRASKA RECYCLING ASSESSMENT PROJECT

Prepared by
Nebraska Recycling Council



**NEBRASKA
RECYCLING
COUNCIL**

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The Western Nebraska Recycling Assessment Project was funded by a grant from the Nebraska Department of Environment and Energy. The project included 32 counties from the western and south central region. Research, meetings, and assessments of recycling programs and access were conducted by the Nebraska Recycling Council.

The Nebraska Recycling Council (NRC) is a statewide, member-based 501(c)(3) nonprofit supporting collaboration between communities, businesses, and solid waste and recycling industries to improve waste management, recycling collection, and infrastructure. Our mission is to maximize the economic and environmental benefits of resource recovery in Nebraska.



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CONTENTS

| | |
|--|----|
| Western Nebraska Recycling Assessment Project | 2 |
| Hub and Spoke Recycling: An Overview | 4 |
| Recycling Programs in Western and South Central Nebraska | 5 |
| Western and South Central Data | 5 |
| Recycling Access and Response | 5 |
| Budgeting for a Recycling Drop Off Container | 8 |
| Recycling Centers | 9 |
| Solid Waste Management Review | 12 |
| Hauler Agreements | 13 |
| Partnerships and Programs | 14 |
| Special Events and Collections | 14 |
| Solid Waste Management Agencies | 15 |
| State Programs | 15 |
| Composting | 15 |
| Developing a Regional Recycling Strategy: Markets, Collection & Processing | 17 |
| Materials Collection and Program Funding | 17 |
| Determining a Market | 19 |
| Building Quantity, Maintaining Quality | 20 |
| Conclusions and Recommendations | 22 |
| Appendix A: Sample Memorandum of Understanding for Interlocal Recycling Agreements ... | 25 |
| Appendix B: Western and South Central Nebraska Resource Management Assessment Survey | 31 |
| Appendix C: Regional and National Funding Opportunities | 34 |

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HUB AND SPOKE RECYCLING: AN OVERVIEW

Successful recycling programs depend on efficient collection and processing of materials. Often, especially in rural areas, success is achieved by sharing resources. Hub and spoke recycling as a concept was developed to provide the most efficient means of gathering and processing recyclables from both a financial and operational perspective.

The hub and spoke model creates or further develops regional recycling centers that serve as the “hub” (or collection point) and encourages smaller communities, or “spokes,” to deliver their collected material to these hubs. The hubs invest in equipment and infrastructure needed to create and store the high-density bales that re-manufacturing markets require, while spokes invest in collection trailers or containers and transportation to the hub.

In rural communities, this model allows municipalities to pool recyclable material to reduce the need to store material for long periods of time or sell partial loads to markets, which would lower the value of the materials, reducing any return or making delivery more costly. Hub and spoke recycling requires less start up operational costs than conventional recycling programs as costs are shared between communities.

Regional recycling partnerships may not be the best option in areas that are already well-served or over served, such as by either private haulers providing recycling services or established recycling programs. It is not the goal of hub and spoke recycling to create programs that are competing for a limited volume of material, but to create programs that work to capture the region’s recyclables.

The advantages for hub and spoke regional recycling can include job creation, landfill tip fee savings, material sales revenue at hubs, cost avoidance for spokes, transportation efficiencies, and pleased residents. In a 2020 study by the Recycling Partnership, 85% of respondents were supportive of recycling with 83% that believe recycling should be made a priority. Recycling is often seen by residents as not only a beneficial service, but an essential service that improves the community.

Hub and spoke partnerships can stretch public funds for greater benefit. On a county level, funding can be strategically directed to foster regional partnerships as opposed to creating competition for limited materials. Local grants that fund recycling programs such as the Waste Reduction and Recycling Grant from the Nebraska Department of Environment and Energy (NDEE), Recycling Equipment Grants dispersed by the Nebraska Recycling Council, and grants from the Nebraska Environmental Trust could give priority to projects that include collaboration with other communities or regional partnerships. See Appendix C for a full list of regional and national funding opportunities.

RECYCLING PROGRAMS IN WESTERN NEBRASKA

As part of this assessment, each incorporated municipality in 32 western and south central counties were surveyed to include Adams, Arthur, Box Butte, Buffalo, Chase, Cheyenne, Dawes, Dawson, Deuel, Dundy, Franklin, Frontier, Furnas, Garden, Gosper, Hall, Harlan, Hayes, Hitchcock, Kearney, Keith, Kimball, Lincoln, Morrill, Perkins, Phelps, Red Willow, Scotts Bluff, Sheridan, Sioux and Webster. The survey was sent to 133 incorporated municipalities with connected phone lines and published emails on January 21, 2021. Follow up phone calls began following January 26th, and respondent answers were logged through the survey. See Appendix B for the full survey.

Western and South Central Data

At the time of this report, 97 of 133 incorporated had responded to the survey. The survey assessed municipal solid waste management models, existing equipment and infrastructure, hauler territories, proximity to markets, residential trash and recycling budgets, community will and motivated stakeholders, contamination, composting availability, and history of recycling.

Many communities differed in recycling terminology. Community drop off containers are frequently referred to as trailers, recycling dumpster, or recycling centers. For the purpose of this report and clarified within the survey, recycling collection receptacles are referred to as drop off containers and recycling centers are specific locations where material is baled or transferred to a processing center or material recovery facility, herein referred to as MRF.

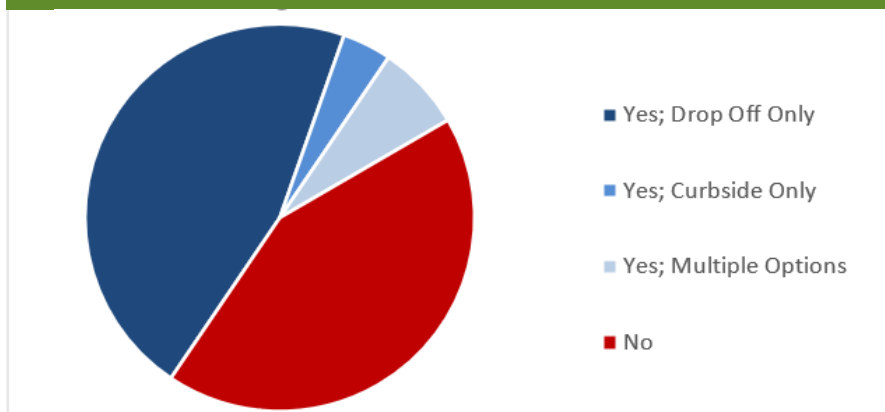
Recycling Access and Response

97 communities responded to the question 'Does your community offer recycling options? 55 (56.7%) municipalities within south central and western Nebraska provide one or more recycling options to their residents; within the communities that offer recycling, 81% offer a drop off container within their municipality or at the community's recycling center; 6% of recycling communities only have curbside collection through a private hauler as an option; and 13% had both curbside and drop off options.

44 communities responded to the question of whether or not materials are required to be separated or if their program is managed as a single-stream program, where materials are collected in one receptacle and organized at the recycling center. 68% of the responding communities indicated their programs required residents to separate their materials, with the remaining 32% providing a single stream option for residents.

Of communities that had recycling options, the average distance to travel with a drop off container or to haul materials to a recycling center was 25.4 miles with a median total of 20.5 miles. In the south central counties, the average number of miles traveled was 20.6 with a median distance of 19 miles. In the western counties and panhandle, the average distance was 30 miles, with a median distance of 23.1 miles.

Graph 1. Distribution of Recycling Options in Western and South Central Nebraska



Budgeting for a Recycling Drop Off Container

Within communities that managed their recycling drop off containers through a hauler, the average annual cost of service was \$4,384.00 with a median cost of \$4,517.50. This cost is higher than the state-wide average of \$2,775, and may reflect higher fuel costs, as the average distance traveled is comparable with the rest of the state at 29.5 miles. The majority responding communities were serviced twice a month, up to every six weeks with the longest time between service at 3-4 months.

Motivation

Responding municipal officials were asked “Based on community feedback, how motivated are your residents to recycle?” 79% indicated that their residents were somewhat to very motivated to recycle, 12% were unsure, and 8% indicated their residents were somewhat to very unmotivated to recycle. The perception of low motivation was frequently paired with reports of high levels of contamination or crime.

*Hemingford, Box Butte County:
“Hemingford residents are 50% very motivated to recycling, 50% if it was more convenient, it would be great.”*

Contamination and Crime

Of the 49 communities that responded to the question “Based on feedback from your waste management provider, how contaminated is your recycling intake?” 20% of respondents stated that materials were “very” or “somewhat” contaminated, threatening the continuation of the program. Even in areas where there are available materials outlets (within 30 miles of a community), contamination can drive a community to determine that the cost or risk of maintaining a drop off site is not worth it.

Contamination is generally thought to be caused by a lack of education or understanding from residents of what materials can be recycled. However, most reports from communities that ended recycling programs with the stated reason of contamination did so based on criminal activity, including illegal dumping or vandalism. The Village of Eustis in Frontier County, the Villages of Trenton and Culbertson in nearby Hitchcock County, and the Village of Hamlet in Hayes County permanently ended recycling due to illegal dumping at the site which created additional work for municipal maintenance technicians or presented an actual hazard to clean.

Eustis, Frontier County: “Was a drop off, just got rid of it, people kept abusing it, dead animals, everything else. Tried for several months but nobody wanted to monitor it.”

Many responding administrators, clerks and technicians described challenging resident habits that are costly or difficult for the municipality to address. Common issues addressed included overflowing drop off containers, which contributed to litter issues in the community; non-recyclable material, especially plastics in communities with limited plastic recycling; not using the correct bin in materials-separated programs; and attempts to drop off material in a community that doesn’t have an outlet for it.

- **Hershey, Lincoln County.** "Pervasive nuisance behavior, like laying materials on ground. Not rinsing out materials."
- **Pleasanton, Buffalo County.** "Tech pulls out television, electronics. Don't break down cardboard, fills it up too fast. That creates another trip to the recycling center, spends gas."
- **Imperial, Chase County.** "We have Styrofoam and other packing materials inside cardboard boxes, a lot of plastics are put into the plastic bin that are not recyclable."

RECYCLING CENTERS

18 south central and western communities have one or more recycling centers with recycling equipment to bale and send materials to direct markets or MRFs. All are currently operating. 9 are owned by the municipality, 7 are incorporated and managed as a nonprofit, and 2 are privately owned and operated.

In the south central region, recycling centers are located in Hastings, Kearney, Minden, Holdrege, Oxford, Stapleton, North Platte, Franklin, and Lexington.

In the western region, recycling centers are located in Imperial, Benkelman, McCook, Ogallala, Sidney, Kimball, Alliance, Gering, and Chadron.

A sample of centers are described in the following section.

South Central Recycling Centers

Kearney Recycling Center, City of Kearney, Buffalo County



The City of Kearney manages trash collection and recycling for their population of 34,000. The service is funded as an enterprise, operating from residential sanitation fees of \$14.07 per month and the revenue generated from material sales.

Annual revenue averages \$250,000 - \$400,000. 10 to 12 staff are employed on the recycling sort line with 53 employed in trash and recycling collection. The City reports a low contamination rate of 7-10%, significantly less than the national average of 25%.

The City provides additional solid waste and sanitation services, including household hazardous waste collection, with a unique program to collect and recycle oil, which they recycle approximately 12,000 gallons per year. Glass is also accepted in their regular collection.

Lexington Area Solid Waste Management Agency Recycling Center, City of Lexington, Dawson County



The Lexington Area Solid Waste Management Agency owns and operates the landfill and recycling center. 41 communities fund the program to operate and maintain the landfill, with several paying for recycling services. Hauling is done in partnership with Schaben Sanitation.

LASWA is operated by 5 employees. In 2020, the recycling center sorted through 359 tons of material, with 232 tons being processed. 126 tons or 35% was non-recyclable material that had to be disposed of at \$30/ton. LASWA reported a revenue return from material sales of approximately \$40,000.

In 2022, management reports that they will be working with First Star Recycling to address contamination and lower the amount of non-recyclable material being sorted in their center to reduce costs and increase revenue.

Minden Recycling Center, City of Minden, Kearney County



The City of Minden (Kearney County, pop 2,800) owns and operates a small recycling center for the city. The cost of operating the center is included in a \$135,000 sanitation budget, which is offset by annual revenue returns that average approximately \$35,000.

One full time employee is committed to the center and two other staff support the operation on a part time basis. The City provides curbside collection for recyclable material at \$14.50 per month. The center separates natural plastics which is then ground down for compact shipping and to increase its value when sold directly to plastic mills.

Woodward's Recycling Center, City of Hastings, Adams County



Woodward's is a privately owned and operated business that manages waste collection, compost, and recycling. The operation employs 35-36 employees with 2 sorters for the recycling center and six haulers for recycling collection.

Woodward's supports curbside and commercial recycling and services drop off containers in 3-5 communities in the region. It accepts paper, cardboard, tin, aluminum, and plastics #1-6. Plastic collection is restricted from drop-offs, with only curbside, commercial, and municipal customers allowed to send plastic materials, so as not to overburden the center with material that has a low monetary value.

Mid Nebraska Individual Services;

Village of Oxford, Furnas and Harlan Counties; City of Holdrege, Phelps County

Mid Nebraska Individual Services (MNIS) is a non-profit providing quality of life services for adults with developmental disabilities, including teaching job- and life skills, housing, day services, employment, medical services, retirement services and transportation services. The organization operates two recycling centers, one in the Village of Oxford in Furnas and Harlan Counties and one in the City of Holdrege where it employs adults with disabilities that benefit from the program. The centers employ 15 individuals, 8 in Oxford and 7 in Holdrege. Between the two, the centers employ 11 adults with disabilities, enrolled in the individual services through the program.

MNIS accepts paper, cardboard, tin, aluminum, scrap metal, and plastics #1 and #2 at both locations. The facilities grind plastic on site and keep materials in separated bales for a greater revenue return from sales. The center utilizes grants to fund labor costs and sustains operation through revenue sales and collection fees from the communities it services. Between both sites, MNIS anticipates collecting approximately 280 tons this year. The Oxford sites services 8 communities, including Oxford, and the Holdrege site services 4 communities, including Holdrege.

Panhandle and Southwest Centers

Western Resources Group, City of Ogallala, Keith County

Western Resources Group is a nonprofit materials recovery facility in Ogallala. The facility accepts paper, cardboard, tin, aluminum, and plastics #1 – 6. This center also operates as a cardboard end market, making animal bedding from recycled fiber. The organization is currently serving an estimated 48 communities in Nebraska and Colorado.

The center operating costs average \$250,000 with 4-5 center staff employed at any given time. The center anticipates processing approximately 800 tons in 2021 and is on track to maintain the organization entirely with revenue returns, in addition to grant funding for non-operational projects like education and promotion.

WRG partners with regional recycling centers to combine loads of materials, allowing them to process material and share revenue more quickly. Through a program with First Star Recycling, an Omaha MRF, WRG can collect soft plastics, such as food wrapping, that would normally be sent to a landfill. First Star Recycling heats and compresses the plastic to create plastic lumber and other reusable material. Under the consultation and support of First Star Recycling, WRG was able to reduce the amount of non-recyclable material disposed of from a 22 yard container to a 3 yard container.

WRG has tripled the number of communities it serves in a three year time frame and is supporting other recycling centers in increasing and supporting surrounding communities as well, including Sydney, Alliance, Stapleton, Benkelman, and Thedford.

Alliance Recycling Center, City of Alliance, Box Butte County

The Alliance Recycling Center is operated as a nonprofit under Keep Alliance Beautiful, a Keep Nebraska Beautiful affiliate. The facility accepts paper, cardboard, tin, aluminum, and plastics #1 and #2. The organization supports a trailer in the village of Hemingford. Leadership states that many residents from the City of Chadron use the drop off containers in Alliance.

The center processes 770,000 lbs of material with 7 to 8 employees. Annual operating costs approximate \$230,000 and revenue returns do not support operation of the program, requiring reliance on grants. As a nonprofit and Keep Nebraska Beautiful affiliate, a substantial part of their program includes education and awareness, for which they receive state grants through the Nebraska Department of Environment and Energy.

Imperial Recycling Center, City of Imperial, Chase County

The City of Imperial owns and operates the Imperial Recycling Center, having recently purchased it from a previous partnership with the county, when it was jointly funded under a Solid Waste Authority. Imperial administers a solid waste management program known as Pay as You Throw, in which residents are charged for garbage disposal based on weight, incentivizing recycling through avoided waste charges.

The center estimates they will recycle 350 tons of material in 2021. The center is funded through utility billing, which also funds city compost. 4-5 employees support the operation of the center.

SOLID WASTE MANAGEMENT REVIEW

This assessment requested information on whether the residents of each municipality had the option of curbside garbage collection, and if so, whether this service was operated by the municipality, if the village or city contracted with a private hauler, or if residents subscribed to a hauler of their choosing. The availability of curbside garbage collection and the method in which the village or city manages solid waste collection has implications in the availability of recycling options.

Of the 95 municipalities responding to the question regarding solid waste curbside collection:

- 56 communities contracted with a private hauler

Of these 56 communities with a contracted private hauler for solid waste collection, 29 communities or 51% offered recycling options, either as part of the collection service or as service to a drop off container.

- 11 communities allowed open hauling and residents subscribed to solid waste collection on their own.

Of the 11 communities that allowed open hauling, 5 communities or 45% had recycling options. Two of these communities offered recycling as an additional fee for the subscribing household.

- 13 municipalities handled solid waste collection as a municipal service.

In communities with municipally managed collection, 12 communities or 92% also offered recycling options.

- 15 municipalities did not offer curbside collection but instead opted for a municipal dumpster. Of these communities, 7 or 46% also provided a recycling drop off container.

Given these figures, recycling access is more reliably available in communities with municipally managed solid waste collection. However, the greatest influence in recycling availability is simply access to a recycling center or materials recovery facility. The counties with the greatest number of municipalities with access to recycling are closest to regional MRFs and large, stable recycling centers that operate as hubs, including Buffalo, Box Butte, Dawson, Lincoln, Harland, Kearney, and Scotts Bluff.

Excluding municipal or agency operated waste management services, municipalities reported 17 haulers operating in the south central and western counties. All 17 haulers offer recycling services, though they may limit those services in locations where the hauling distance for materials processing is too far to be profitable or feasible. Two not-for-profit organizations, Keep Kimball Beautiful and Keep Alliance Beautiful, also provide collection services for recyclable material, and three municipalities or agencies support communities surrounding their region, including the City of Gering, the Village of Stapleton, and the Southwest Agency of Northwest Nebraska (SWANN).

Graph 2. Municipal Solid Waste Collection Methods with Recycling Options

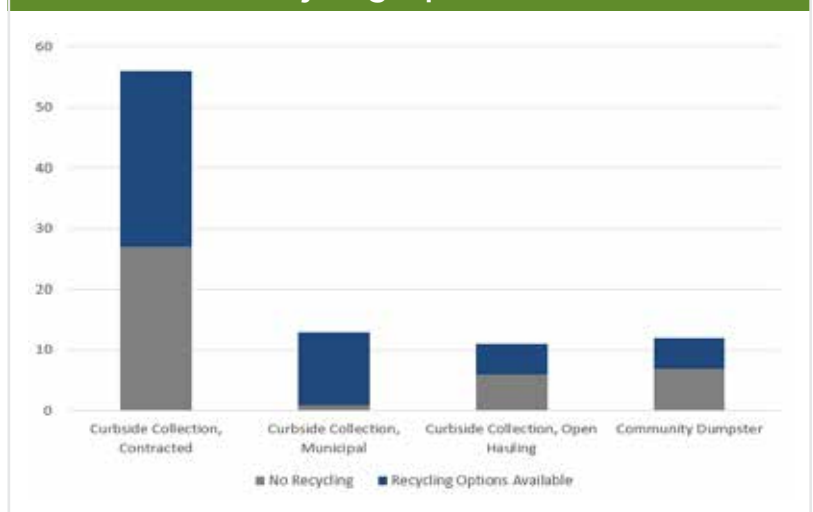


Table 1. Recycling Haulers in Western and South Central Nebraska by County

| County | Recycling Provider | Communities Served |
|--------------|------------------------------|----------------------------|
| Adams | Woodward's | Kennesaw, Prosser, Juniata |
| Arthur | Waste Connections | Arthur |
| Box Butte | H&H Sanitation and Recycling | Hemingford |
| | Rawley Enterprises | Alliance |
| Buffalo | Heartland Disposal | Shelton |
| | Mid Nebraska Disposal | Gibbon |
| | Ravenna Sanitation | Ravenna, Pleasanton |
| Dawson | Dan's R Us Sanitation | Lexington, Gothenburg |
| | Schaben Sanitation | Gothenburg |
| Franklin | South Central Sanitation | Upland |
| Furnas | Schaben Sanitation | Arapahoe |
| | South Central Sanitation | Beaver City |
| Garden | Waste Connections | Lewellen |
| Grant | Waste Connections | Hyannis |
| Hall | Heartland Disposal | Cairo |
| Kearney | South Central Sanitation | Wilcox |
| Keith | Waste Connections | Ogallala, Brule |
| | Dan's R Us Sanitation | Ogallala |
| Kimball | Rawley Enterprises | Kimball |
| | Packrat | Bushnell |
| Lincoln | Schaben Sanitation | Brady, Sutherland, Hershey |
| Morrill | Municipal Collection | Bayard |
| Phelps | Schaben Sanitation | Bertrand |
| | South Central Sanitation | Holdrege |
| | Orchid Sanitation | Holdrege |
| | Reed Sanitation | Holdrege |
| Scotts Bluff | Municipal Collection | Lyman, Gering |
| Sioux | Harrison | SWANN |
| Webster | Woodward's | Blue Hill |

Hauler Agreements

For municipalities that contract with a single hauler for residential garbage collection, the average cost per household is \$17.86 with median cost of \$17.00. For municipally operated garbage collection, the average cost per household is \$17.54 with a median cost of \$17.00.

As the majority of communities with recycling options provided a drop off container only, only four communities provided details for an additional charge for curbside recycling expense under a contracted hauler, ranging from \$2.00 - \$10.00. Contracted curbside recycling collection may have lower costs if a community is close to a recycling center or MRF, reducing the cost of freight. Costs may be higher or lower depending on the size of the community and frequency of service.

PARTNERSHIPS AND PROGRAMS

Special Events and Collections

87 communities responded to the question asking to describe any special events or unique programs outside of regular collection for recyclable materials.

- 26 communities host an annual or biannual clean up day. None were grant funded.
- 8 communities host electronics collection, generally on an ad hoc basis. 6 were grant funded in 2021.
- 19 communities host a drive for household hazardous waste collection. 6 were grant funded in 2021.
- 21 communities host a drive for used tires. 8 were grant funded in 2021.
- 1 community held a prescription drug collection event. This event was grant funded.

County Support

County support for recycling and waste reduction programs are sparse in the western region. Rather than provide direct support, municipalities more frequently partner with a government agency or nonprofit to provide annual recycling or disposal events for residents.

Furnas County supported recycling programs in the county with an annual budget of approximately \$7,000. This program ended and responding clerks expressed disappointment in the lack of support and coordination the county program provided.

Nonprofit partnership

Keep America Beautiful affiliates have played a critical role in recycling and litter management. Affiliates are located in Lexington, North Platte/Lincoln County, Sidney, Keith County, Kimball, Scottsbluff, Alliance, and Chadron, as well as the Grand Island Clean Community System. These affiliates have supported and promoted grant opportunities and unique clean up days for specific materials collections.

Resource, Conservation, & Development Councils

Several counties relied on Resource, Conservation, and Development (RC&D) agencies and Natural Resources Districts for support in grant writing and administration of these events, including household hazardous waste (HHW), appliances, scrap metal, electronics, and tires, which generally occur once a year.

Of the responding counties, Webster and Franklin communities reported the greatest number of partnerships for collection events citing the Little Blue NRD, the Lower Republican NRD and the Trailblazers RC&D for household hazardous waste, tires, and electronics collections.

Solid Waste Management Agencies

Two solid waste management agencies operate in the western and south central region: the Solid Waste Agency of Northwest Nebraska (SWANN) and the Lexington Area Solid Waste Agency (LASWA). One, the Southwest Nebraska Solid Waste Agency (SWNSWA) was ended early in 2021.

Both SWANN and LASWA maintain and operate a landfill and provide recycling services for their service areas. SWANN is represented by a panel of chairpersons assigned by the eight municipalities it serves. Support for recycling services is voluntary and currently the City of Chadron has opted out of paying into this service. SWANN also manages the region's compost, household hazardous waste collection, and construction refuse.

State Programs

Many communities were able to offset recycling costs or meet responsible waste management goals through various state supported programs. Below is a brief description of each program.

Tire Recycling

Several communities took advantage of the NDEE Scrap Tire Management Grants which assists in financing scrap tire programs and projects, such as partial payment for tire-derived products or crumb rubber, collection site cleanups, equipment to shred, grind, and process scrap tires or cost sharing for these efforts. Most counties hold tire recycling events every year or every other year.

Litter Reduction Grant

The Litter Reduction and Recycling funds are awarded to support public education, cleanup, and recycling. Each year approximately 1.8 million dollars is awarded.

Adopt a Highway

The Nebraska Department of Roads maintains the Adopt-A-Highway program. Adopt-A-Highway groups in Nebraska count over 900 and are strongly represented in the western region, many school groups are supporting these efforts, in particular the FFCLA in the Village of Franklin, Franklin County.

Landfill Disposal Fee Rebate Program

The Nebraska Legislature has set aside a portion of the Waste Reduction and Recycling Fund to provide a rebate to municipalities that have developed and are implementing a written purchasing policy requiring a preference for purchasing products, materials or supplies that are manufactured or produced from recycled material. Rebates are paid on a quarterly basis.

Composting

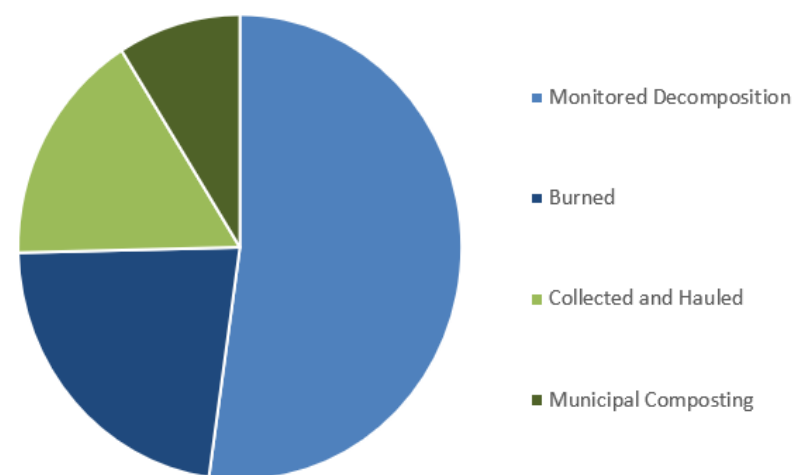
Composting or other reuse of organic materials has many economic and environmental benefits for communities. Food waste and yard waste comprise 19.47% of the total weight per household thrown out with food waste making up most of this waste at 16.64% according to the state's most recent waste characterization study. Robust compost programs can save municipalities on landfill tip fees by diverting the weight of organic materials. Further, yard waste can be allowed to decompose for beneficial ground cover for gardens and lawns, while larger, woody material can be chipped for weed suppression on trails and parks or for playground materials.

Some options, such as monitored decomposition of yard waste, can be implemented quickly and inexpensively. Other communities have the option of more advanced compost operations, such as biomass composting, using the organic material from wastewater; or utilizing manure or animal byproduct to create nutrient rich compost that can be sold to area farms or residents. 95 municipalities responded to the question on composting process of organic material. The Nebraska Recycling Council is the Chapter seat for the Nebraska US Composting Council and can provide resources on getting started.

Of the responding municipalities, 67 indicated that they do provide residents with options for yard waste and municipal organic debris. 28 responded no or unsure.

- 15 communities burned brush and yard waste at a designated "tree dump."
- 35 communities allowed brush and yard waste to decompose at a designated site and monitored it for signs of overheating. 11 of these sites are gated and residents may either use it at posted hours or are obligated to purchase a key card, generally between \$8-15 per year.
- 10 communities collected municipal yard waste to be transported to a formal compost site.
- 4 communities operate a compost program, mechanically turning the material and adding necessary components.
- 3 communities grind woody vegetation and use for mulch in public projects.

Graph 3. Municipal Management of Organic Materials



Currently, no private waste hauler offers a food composting service in western or south central Nebraska.

DEVELOPING A REGIONAL RECYCLING STRATEGY: MARKETS, COLLECTION & PROCESSING

Recycling is a process involving a series of steps from the point of generation and collection of materials, to processing and transporting materials as commodities to be manufactured into new products. Successful programs require a sufficient accumulation of material to achieve an economy of scale that allows for efficiencies in each step along the way.

According to the Association of Plastics Recyclers,¹ the demand for recyclable material is far greater than the current supply. However, many rural communities struggle when commodity prices fluctuate sharply or drop off collection steeply increases, such as when residents respond to recycling closures elsewhere. Consistency and volume of supply is key to a successful and meaningful recycling program. Determining where materials will go and how they will be collected should be consistently re-evaluated to inform the overall cost of the program, leading to a long-term sustainable plan.

The questions guiding recycling program development begin with:

How will the community collect materials from residents and businesses?

How will the community process materials responsibly and at an affordable cost?

How will the community ensure consistent quantity and quality of materials?

MATERIALS COLLECTION AND PROGRAM FUNDING

Methods of Material Collection

The most common methods of collecting residential materials are curbside collection and drop off collection and either may be single stream, dual stream, or separated by material. Each variation of the process has unique advantages and the method a program adopts will influence how much a community recycles and the quality of the materials. As with market determination, a community can choose a variety of strategies and the chosen strategy may depend on the method of moving materials.

Source-separated collection programs have been pre-sorted by the consumer. These materials require little to no additional sorting and are ready to bale or store in bunkers for shipment with similar commodities or material. This method depends on the diligent and educated actions of the resident and when done properly, is the most cost-effective option for the processor and hauler.

Dual stream collection manages fiber material (cardboard and mixed paper) separately from rigid material, such as metal and plastic, and helps to reduce contamination and deterioration of fiber products. The advantage for the processor in this method includes maintaining clean fiber stock, having separated it from materials that frequently transmit moisture or food contaminants from rigid containers, as well as allowing for easier sorting at the processing facility, thereby saving time and resources. This method is challenging for residents and is the least common procedure for curbside pick-up. No community in the western or south central region reported utilizing this method, though several municipalities are considering this option, given the high price of fiber at the time of this report.

Single stream recycling allows residents to collect their materials in one container or tote, requiring the recycling or processing center to sort at the site. This process is among the most common, can result in the most contamination, and is the most expensive for the processing center or recycling center to sort. However, it is the simplest process for the resident. See Table 2 for an overview of advantages and disadvantages on the recycling systems.

1 Association of Plastic Recyclers. "Designing for Recyclability in a Circular Economy." Indiana Recycling Conference, 2020.

Table 2. Strengths and Weaknesses of Recycling Systems

| System | Source-Separated | Dual Stream | Single Stream |
|---|--|-------------------------------------|--------------------------------|
| Materials collected and received by processing facility | Recyclables separated by the residents | Fiber and rigid materials separated | All recyclables mixed together |
| Convenience for residents/businesses | Low | Medium-High | High |
| Sorting equipment expense | Low | Moderate | High |
| Quality of resulting materials | High | Medium-High | Medium-Low |
| Markets for resulting materials | Strong | Strong | Medium-Weak |
| Market value for resulting materials | High | High | Medium-Low |
| Preferred by waste haulers | No | No | Yes |
| Preferred by end markets | Yes | Yes | No |

Funding Recycling Programs

Recycling can be seen as both a utility and a commodity. It is a valued and valuable community service and because material prices fluctuate, municipalities cannot rely on material revenue to cover the operations. Establishing a funding source from property taxes or from another utility service puts a program at less risk of suspending services or forcing collection changes when markets fluctuate.

County Level Support

In Nebraska, there are several cases of county funds allocated for recycling programs. The most prominent example is that of Custer County in north central Nebraska, which operates a recycling center in Broken Bow that is funded by property taxes and amounts to two percent of the county budget. The cost to residents is estimated to be \$12 per household annually.² This recycling center acts as a hub for the communities within Custer County.

Solid waste management agencies are cooperative agreements between the county and participating municipalities to act as a central point of contact for all solid waste issues. These agencies often have funding authority, such as in the case of Saline/Seward, which has the ability to negotiate with the Milford landfill to implement a fee that helps fund recycling reimbursements. Other examples of potential powers for solid waste management agencies include mutual rate setting systems, administering a program fee to participating communities, and enact recycling, household hazardous waste, and compost or refuse provisions.

State Level Support

Many communities begin their program with support from the state or state-wide nonprofits. NDEE's Waste Reduction and Recycling Grants funded the initial purchase of the recycling drop-off containers in Cass County and their other grants support many one-time events for disposal of special materials. Grants from the Nebraska Environmental Trust and NRC for recycling equipment, communication, and signage are also an option. When starting a program, communities must consider how to sustain the potential expenses.

² Barnett, E.; Higgins, G. "Overwhelming Support of Custer County Recycling Center Displayed at Public Hearing." Sandhills Express. 2019.

DETERMINING A MARKET

Selling directly to end markets or mills, using brokers, or sending material to a MRF are all options for recycling programs to move materials, and many programs will choose a variety of options. Local markets for recycled materials include MRFs such as First Star Recycling in Omaha and Green Quest in Lincoln; end markets such as Greenfiber in Norfolk and Ripple Glass in Kansas City, MO; and brokers who can be intermediaries between recycling programs and mills.

All recycling programs, whether new or established, must continually evaluate the end market, broker, or MRF to be able to accurately evaluate the financial feasibility of the program. Without a thorough understanding of the markets and specifically the average value of the materials, a community recycling program is at risk of stockpiling materials that will be bound for the landfill due to material degradation caused by exposure to sunlight or moisture.

End Markets and Mills

End markets for recyclables, such as paper mills and plastic processors, use materials as feedstock for their manufacturing process. As such, they can provide the highest price paid per ton. However, they also have the strictest requirements on quality and quantity. Mills generally require a minimum delivery of a truckload, or 40,000 pounds, and prefer a reliable quantity on a regular, consistent basis. Materials will need to be baled and stored. Finished bales are required to be “clean” and meet specifications for the mill, which generally has a strict limit on allowable level of contaminants. Recycling programs that collect source-separated materials can achieve cleaner loads with minimal sorting, but marketing directly to a mill will require labor and equipment for baling and long-term storage capacity.

Brokers

Brokers can access end markets or mills and are used by recycling programs that do not have the connections or ability to market materials themselves. They can be useful in negotiating freight and price and can allow for infrequent truckloads of a material. Brokers generally charge a percentage of the tonnage value for their services, so preparing clean bales of materials will still be necessary to maximize revenue.

Processors

Sending material to a MRF for processing provides the lowest value per ton, but avoids the capital and operational costs of handling, sorting, and baling materials. Source-separated materials are stored loose until a full truckload can be delivered to the MRF. Likewise, dual stream materials can be marketed without processing first. The exception may be for cardboard and other fibers, which could be marketed directly to a mill. A MRF will provide more value for dual-stream materials since they are separated and cleaner than single stream, but hauling may not be as efficient if materials are hauled loose, reducing the volume that can be loaded onto a truck.

A MRF also can be used similar to a broker, and provide higher value for sorted, clean, and baled materials. This would require equipment, labor, and higher operational costs; however, it may provide more financial advantages in the long-term. Unlike end markets, a MRF will accept a load of mixed materials, sorted and baled by material type. Processing and marketing loads to a MRF can provide moderate value on recyclable commodities. Table 3 provides a brief overview of how to utilize each type of market.

Table 3. Markets at a Glance

| Market | Quantity | Quality | Value/Ton |
|-----------------|--|--|---|
| Mill/End Market | Prefer consistent, large loads of a specific material. | Strictest requirements on contaminants, typically requires material to be baled. | Best return per ton. May cover or provide freight. |
| Processor/MRF | No minimum quantity. Accepts mixed loads of baled or loose materials (should remain source-separated). | Can accept loose or baled materials. Moderate allowance for contaminants. | Lowest return per ton. Will not cover or provide freight. |
| Broker | Larger quantities typically required. Can allow for irregular schedules of loads. | Typically requires material to be baled. May allow moderate contamination. | Moderate to best return per ton. May arrange freight. |

BUILDING QUANTITY, MAINTAINING QUALITY

As stated, the relationship a program builds with an end market, broker, or processor is predicated on the stable quantity and quality of the materials being sent. By establishing a consistent commodity, a recycling center will be able to negotiate the best price for materials.

To offset operational costs, rural recycling programs must build higher recycling tonnages to achieve an economy of scale that allows for affordable community recycling. For a rural recycling program to achieve this high volume, it is critical that communities work together, either cost sharing through an interlocal agreement between participating communities or through county-level programming.

Cass County has used Waste Reduction and Recycling Grants to great effect on its 2009 “Going Green” initiative, wherein it purchased 9 shared recycling drop off containers and funded several studies.³ These drop off containers are operated by volunteers and village board members. However, without a formalized cost-sharing agreement between communities, the closure of a few of the drop off containers has led to undue burden on those that are still operating, threatening the sustainability of the program.

In many parts of the country, villages or townships opt into a program through an interlocal agreement. As an example, in Cheboygan County, Michigan, 14 townships agree to an annual charge of \$25 per household to pay for the management of their town drop off containers. This charge covers maintenance of the equipment, hauling, reporting, and community education. By participating in a shared cost, the towns avoid the issues seen in the example above, where certain communities are overloaded with the recyclable materials from residents of communities that have ended their recycling program. This model also provides cost savings by establishing a consistent pick up schedule, allowing an efficient route for the hauler. See Appendix A for an example of an interlocal agreement of this nature.

While increasing material, it is imperative for communities to keep contamination as low as possible to maintain an affordable and effective community recycling program. When loads surpass an acceptable rate of contamination, the contents of the entire drop off container may be sent to a landfill. This causes greater expense to the processing center which is passed on to the resident or municipality subscribing to the service. In a contracted arrangement with a processing center, programs may be fined contamination fees for excess non-recyclable or dirty materials.

³ Cass County Board of Commissioners. “Cass County Resource Management Plan.” 2016.

To avoid this, communities must implement anti-contamination strategies or investments. When considering the cost of a recycling container, communities should include expenses such as large signage with simple, bold images of what is allowed. Clear visuals with minimal text have proven to be more effective than explanative signs and is helpful for residents unable to read text. Using standardized signage will minimize confusion, create efficient separation, and provide constant reminders for reinforcing recycling as residents move between communities. Color-coded signs help to identify drop off containers as well, especially if these containers are placed near community trash dumpsters. Many communities use signage from Recycle Across America,⁴ capitalizing on imagery that would be familiar to residents from well-traveled venues such as airports and event centers.⁵

Beyond signage and monitors, other ways communities can reduce contamination is by leveraging community partners. Many communities in western and south central Nebraska work with Boy Scouts of America, Girl Scouts of America, Future Farmers of America, among other community organizations to volunteer at the drop off containers. In some cases, the groups will sort through containers or commit to hours served at the site, educating community members at the drop off site or taking the materials and sorting it for the resident. This model works well for communities that allow limited hours for drop off container access.

4 Recycle Across America Universal Labels and Bins. <https://www.recycleacrossamerica.org/>.

5 Recycle Lincoln. "Recycling Signage and Labels" Fact Sheet. <https://app.lincoln.ne.gov/city/ltu/solid-waste/recycle/commercial/fact-sheets/pdf/recycling-signage.pdf>

CONCLUSIONS AND RECOMMENDATIONS

Separate Economic Development Funding for Hub and Spoke Programs

Currently, there is no state incentive to develop a Hub and Spoke program in Nebraska that would increase recycling access and participation. Centers that are geographically positioned as a hub, such as the Kearney Recycling Center, naturally must prioritize the City of Kearney before committing to the logistics and cost of accepting material from other municipalities. Privately owned centers, such as Green Quest in Lincoln, are at maximum capacity in what they can accept from municipalities within the county. When spoke communities can rely on an outlet through their hub community, they face the burden of investing in drop off equipment as well as hauling costs, and all must develop communication plans with their residents within the municipality or in collaboration with an area hauler. Interlocal agreements outside of a Solid Waste Management Agency are rare but they do occur. The City of Tekamah and the Village of Lyons is one such example that have a formalized hub and spoke relationship.

These issues could be mitigated by a growing strategy employed in other states: a grant specific for the development of Hub and Spoke relationships. These grants support the purchase of equipment for both hub and spoke communities and can subsidize transportation costs for spokes to transport materials, and for hubs to send bales on to their final outlet. Hub development may take the shape of interlocal agreements or formalize as a solid waste management agency, such as the Solid Waste Agency of Northeast Nebraska, based in Chadron, which has representation from municipal chairpersons from each participating municipality. See Appendix A for a sample interlocal agreement.

In Tennessee, hub and spoke grants are part of a Solid Waste Management Fund, a matching grant program for the purchase of equipment upgrades. This equipment can include containers, transport equipment, sort lines, sorters, balers, and buildings or storage. They are available for public and not-for-profit centers that have a formal agreement with three or more “spoke” communities.

In Colorado, the Recycling Resources Economic Opportunity (RREO) Program funds the hub and spoke expansion program and materials rebates. Hub and spoke projects require a formal agreement between three or more municipalities and provide funding for retrofitting and upgrading hub centers as well as providing for operating and labor costs that would support the project. Materials rebates are an essential part of ongoing drop off programs and support the longevity of new hub and spoke programs and established recycling systems. These programs are administered through the state Department of Environment and Energy. This program will be described in more detail below:

Material Rebates:

The RREO rebate program is funded through a \$0.14 per cubic yard of solid waste landfill fee. This small fee generates \$4 million annually. In 2017 the rebate program comprised 9.9% of the overall budget and in 2018, it comprised 13.9% of the overall budget. The intent of the rebate program is to financially support free public recycling drop-off sites by offsetting a portion of the transportation costs incurred by shipping recyclables to market or to a processing center. This especially aids rural areas where other recycling options and access to markets are limited.

Each drop off site must provide containers that collectively equal a minimum of 12 cubic yards of recycling capacity. In addition, drop off sites must accept at least three different materials for recycling or accept single-stream recyclables. Rebates are calculated based on the tonnage recycled and the miles traveled to bring recyclables to the nearest processing facility.

Hub and Spoke Funding:

Since the program's inception in 2014, RREO program has funded ten hub and spoke infrastructure projects, with project costs ranging from \$65,700 upwards to \$310,485. Project costs average \$221,220. Projects may be for commonly recycled materials across a wide service area, or may be materials specific, such as compost, glass, or mattresses. Table 4 provides an overview of hub-and spoke projects in Colorado within the past seven years, the organizations that received them, and the grant award amount.

Table 4: Examples of Projects from the Colorado Resources Economic Opportunity Hub and Spoke Programs. 2014-Present.

| Grantee | Project Title | Year | Organization Type | Award Amount |
|--|---|------|-------------------|--------------|
| Vail Honeywagon | Honeywagon Hub-and-Spoke Compost Program | 2017 | For-Profit | \$310,485.58 |
| Spring Back Colorado | Building Mattress Recycling Capacity through a Colorado Springs Hub-and-Spoke Network | 2014 | Nonprofit | \$298,310.00 |
| Quest Services | Northeastern Colorado Hub-and-Spoke and Commercial Recycling | 2017 | For-Profit | \$167,416.28 |
| Gunnison County | Recycling Center Hub Relocation and Renovation of Existing Hub Into an Additional Spoke | 2017 | Government | \$399,382.00 |
| Clear Intentions | Clear Intentions Hub-and-Spoke Glass Recycling | 2015 | For-Profit | \$250,000.00 |
| Clean Valley Recycling | Clean Valley Hub-and-Spoke | 2014 | Nonprofit | \$65,700.00 |
| Archuleta County Solid Waste & Recycling | Hub-and-Spoke Recycling Equipment and Implementation Program | 2014 | Government | \$136,379.00 |
| Discover Goodwill | Western Slope Hub and Spoke Expansion Project | 2018 | Nonprofit | \$196,000.00 |
| MDS Waste | SLV Hub-and-Spoke Recycling Project | 2017 | For-Profit | \$167,310.00 |

Clean Valley Recycling Project Outcomes:

The Clean Valley Recycling project established a hub-and-spoke model for southeastern Colorado and experienced a 100% increase in year-over-year recycling. New recycling collection containers allowed the organization to successfully expand services into the communities of Crowley, Ft Lyon, and Las Animas. Grant funds were used to purchase additional recycling bins to collect cardboard and glass, as well as bins to provide to commercial accounts. Clean Valley Recycling partnered with the City of Rocky Ford to launch a pilot program for residential curbside recycling service. Two new spoke locations were established in the unincorporated community of Karval in Lincoln County and the Town of Walsh.

Archuleta County: Hub and spoke Recycling Equipment and Implementation Program Outcomes:

Archuleta County created a comprehensive hub-and-spoke recycling program through the expansion of their recycling facility through the purchase of a horizontal baler with above ground conveyor belt; upgraded infrastructure to the existing recycling center by adding three-phase electricity, a concrete slab, and a shelter for the baler; purchased a skid loader to move and load bales; and provided educational recycling programs in Archuleta County, Pagosa Springs, and the surrounding area. These activities helped increase the efficiency of the county's existing recycling program. The site was prepped and the baler/conveyor line installed in January of 2014. In the second half of the grant period, Archuleta County recycled more than 122 tons of material. Staff also presented to 11 school and civic groups to educate the community about the new recycling center and the overall importance of recycling.

In discussion with the recycling centers in regard to the utility of these funds, should a similar program be developed in Nebraska, center managers stated the greatest need would be equipment investments, followed by rebates for hauling and freight costs, and finally labor expenses in order of significant impact. Potential spoke communities indicated rebates for hauling and labor costs would be essential to their participation.

Addressing Illegal Dumping and Contamination

Even occasional changes to acceptable materials are confusing to residents and can make a significant impact to participation rates, as can be observed in the City of North Platte during the changes made in 2020. Communication and a strong relationship with local Keep Nebraska Beautiful affiliates can quickly and effectively change public behavior as it relates to consistently recycling the proper materials.

Illegal dumping and criminal activity are more difficult issues to address. NRC recommends that communities commit to a series of investments to ensure the long-term success of a program. Moving the drop off containers to a brightly lit, well-trafficked area is the first step, such as a fire or police station. While it is a high initial investment, ensuring the area is fenced and setting established hours is the other most significant investment a municipality can make in its recycling program. These open hours are a great way to involve student, youth, and volunteer groups to help educate the public.

In a survey conducted in 2021 for users of the Wayne Recycling and Trash Center, 65% of users stated they used the center for recyclables weekly, with Saturday, 8am - 12pm being the most popular time, followed by Friday, 9am - 1:30pm. When asked how to improve, many requested more evening hours, at least one day a week, with several providing comments that the current schedule is not compatible with traditional business hours.

Recycling Center Management and Continuity

Several center operators expressed a concern about the management of the program once they have retired. Additionally, many center managers are tasked with the management of programs unrelated to recycling or are obligated to prioritize waste management, without remaining agile to the changing nature of the recycling industry. To mitigate this issue, NRC recommends a standardized course for recycling center operators to stabilize closures and support new centers. If a center is part of a future Hub and Spoke grant program as recommended previously, attendance in this course could be required every two years with the fee waived for new staff or new centers.

The State of New Mexico established a Recycling Operators Training Course as part of a recycling center permitting process and have seen recycling rates increase, the closure of recycling centers slow or stop, and have had reported increases in profit, stabilizing recyclable materials management throughout the state.

APPENDIX A: SAMPLE MEMORANDUM OF UNDERSTANDING FOR INTERLOCAL RECYCLING AGREEMENTS

INTERLOCAL AGREEMENT CREATING THE SEWARD/SALINE COUNTY SOLID WASTE MANAGEMENT AGENCY

THIS AGREEMENT is made this 14th day of September, 1993, among the following local units of government: the county of Seward County - unincorporated area, the City of Seward, the City of Milford, the County of Saline County - unincorporated area of the northern tier, including the industry within said tier, the City of Crete, the Village of Goehner, the Village of Staplehurst, the Village of Bee, the Village of Garland, the Village of Pleasant Dale, the Village of Beaver Crossing, the Village of Dorchester, the City of Friend, hereinafter referred to as "members," or "participants" or as "member of the Joint Entity" or as "participants of the Agency" in the singular.

I.

CREATION OF THE SEWARD/SALINE COUNTY SOLID WASTE MANAGEMENT AGENCY.

Pursuant to the of the Nebraska Interlocal Cooperation Act (13-804), the local units of government above named do hereby create, as a public body corporate and politic and as a separate joint entity, the Seward/Saline County Solid Waste Management Agency which shall be hereinafter referred to as "Agency".

II.

PURPOSES OF THE AGENCY.

1: The purpose of the Agency is as follows:

- (a) To develop, process, and implement a Solid Waste Management Plan, to include required Certifications, as required by the Waste Management Act, for Agency Members.
- (b) To permit its Members to coordinate their resources to fulfill their responsibilities under the Waste Management Act and the rules and regulations promulgated thereunder and to deal effectively with Solid Waste Management.
- (c) To permit the initial organization of an inter-county and county wide interlocal solid waste management agency where at the decision of its members this agreement is intended to be amended to allow for a more complete and/or more complex interlocal structure. This initial structure is intended to allow the inter-county solid waste management agency to organize and clarify its desired working limits and powers as may be needed to grow into the mature agency the Board of Directors may see as appropriate. Recommendations for amendments are to be presented to said members as it may be considered appropriate by the Board of Directors of the Seward/Saline County Solid Waste Management Agency.

III.

POWERS OF AGENCY

The Agency shall be a public body corporate and politic and a separate legal entity exercising public and essential governmental functions to provide for the public health, safety and welfare and shall have the following powers:

- (a) To adopt and have a common seal and to alter the same at pleasure.
- (b) To sue and be sued.
- (c) To make and enforce bylaws or rules and regulations for the management and operation of its business and affairs.
- (d) To make or cause to be made studies and surveys necessary or useful and convenient to carrying out the functions of the Agency.
- (e) To contract with and compensate consultants for professional services including but not limited to architects, engineers, planners, lawyers, accountants, rate specialists, and others found necessary or useful and convenient to the stated purposes of the Agency.
- (f) To provide for a system of budgeting, accounting, auditing (annual audit) and reporting of all Agency funds and transactions, for a depository, and for the bonding of employees.
- (g) To accept gifts or grants or real or personal property, money, material, labor or supplies for the purposes of the Agency, and to make and perform such agreements and contracts as may be necessary or convenient in connection with the procuring, acceptance or disposition of such gifts or grants.

3.02 Reservation of Powers. The following powers shall be reserved to and remain a function of the individual Participants.

- (a) Final action upon the allowance and payment or any claims against a Participant;
- (b) The levy and collection of ad valorem property taxes.

IV.

ORGANIZATION

4.01 Participants.

- (a) This Agreement shall become effective when executed (per Article VII) by any two or more of the identified local units of government within Seward County and Saline County.
- (b) The Agency shall be subject to control by the Members in accordance with the terms of this Agreement. The governing body of each member shall have approved this Agreement by resolution. A certified copy of each approving resolution shall be kept on file at the Agency's designated office.

4.02 The Board of Directors.

- (a) The affairs of the Agency shall be governed by a Board of Directors, which shall consist of not less than one representative from each Participant appointed by the Participants in the manner specified in this Agreement, and if deemed appropriate, further clarified by the By-Laws of the Agency.
- (b) The Board of Directors shall be responsible for administering the Agency so as to accomplish the objectives of this Agreement, the Interlocal Act, the Waste Management Act, and the Environmental

Protection Act and any applicable federal or state statute, law, order, rule or regulation. Except as provided in By-Laws or resolutions of the Agency, all powers of the Agency shall be exercised by the Board of Directors, acting through its chair or vice-chair and secretary.

(c) The Board of Directors shall hold an annual meeting at such time and place as the Board of Directors shall designate and shall hold meetings at other times at the call of the chair or vice chair or upon call of at least one-third of its members. Notice of meetings shall be publicized and meeting agendas made available in compliance with Neb.Rev.Stat. §84-1408, et.seq., as amended from time to time, and as provided in by-laws of the Agency.

(d) The Board of Directors, at its annual meeting, shall elect three officers who shall serve until the next annual meeting, as long as he or she remains a Member representative or until his or her successor is chosen. There shall be a chair, a vice-chair, and treasurer elected from the representatives of the Participants.

(e) Each member of the Board of Directors shall have the right to cast one vote per 1000 persons represented by their specific Jurisdictional Area (rounded to the nearest 1000 persons based on the latest US Census, with no Participant having less than 1 vote) on actions of the Board of Directors. The "County Jurisdictional Area" shall include all unincorporated areas of Seward County and Saline County, respectively.

(f) A quorum of the Board shall consist of a majority of the weighted votes of all member representatives appointed to the Board as assigned in 4.02 (e) above.

(g) The Board of Directors may delegate authority to approve and pay expenditures totaling less than \$5,000.00 to the Treasurer per quarter. Any such expenditures so approved and paid shall be presented to the Board for ratification at the Board meeting immediately following payment. All other Board action shall, including any financial expenditures of \$5,000.00 or more, require an affirmative vote of the majority of the total votes constituting a quorum at a meeting under Article 4.02 (f) of this Agreement. Expenditures must be ratified at least annually.

(h) The duties of the Board of Directors include, but are not limited to, the following:

i) Supervision of the development of plans and procedures that will result in the attainment of the objectives of this Agreement.

ii) Annual adoption of a budget of revenues and expenditures.

iii) Make such administrative arrangements as may be required and which are pertinent to this Agreement, but which are not specifically covered herein.

iv) Contract for services as are authorized by the Board as necessary to carry out the functions of the Agency.

v) Develop long-range plans.

vi) Cause studies to be made as necessary for administration of the aforesaid duties; employ such consultants as are authorized by this Agreement and approve their compensation.

vii) Appoint task forces and committees for particular studies. A member may be reimbursed, at the discretion of the Board of Directors, for the time and expenses of any of its employees or agents engaged in such task force and committee work.

V.

WASTE MANAGEMENT PLAN: SERVICE AGREEMENTS

VI.

FINANCING

6.01 Intent: Obligation of Participants. It is the intention of the parties to this Agreement that the Agency be financed via a mutually agreed method as arrived at by the voluntarily participating member participants through the action of the Agency Board of Directors. If any Participant shall choose not to provide financial support per said mutually agreed to budget plan, that Participant shall be deemed to intend withdrawal, or termination of membership and shall be required to proceed with withdrawal per Article VII.

6.02 In the initial period of formation, no fee is intended. This base level Interlocal Agreement will bring together a Seward/Saline County Solid Waste Management Agency Board of Directors who will, in its first steps after formation clarify the desired extent and limits of powers of the Agency. Said Board may present those findings and recommendations to its Participants as an amendment to this Interlocal Agreement or as an Interlocal Agreement that would succeed this Interlocal Agreement. The intent is to have said call for future financing presented in conjunction with the budgeting cycle of the Participants.

VII.

TERM, WITHDRAWAL, DISSOLUTION AND INVOLUNTARY WITHDRAWAL

7.01 Term of Agreement. Subject to earlier termination, as provided below, the term of this Agreement shall be fifty (50) years from the effective date.

7.02 Withdrawal. A Participant cannot withdraw from the Agency prior to dissolution of the Agency except in accordance with the following procedures.

(a) Notice. The withdrawing Participant shall serve notice of this intent to withdraw on the Agency by certified mail, return receipt requested, addressed to the Chairman of the Board of the Agency. The notice shall state the name of the withdrawing Participant and its intention to withdraw from the Agency, and shall be signed by a duly authorized representative of the Participant. The Notice of withdrawal will be deemed served when received by the Agency.

(b) Time of Notice, Effective Date. A Notice of withdrawal may be served at any time, and shall be effective 30 days from the date it is served.

(c) Notice, Self-Executing. A notice of withdrawal is self executing, not requiring Agency action to be effective. A Participant which has once served a notice of withdrawal in accordance with this Agreement cannot rescind the notice, but may re-apply for participation in accordance with the procedures set forth in the Agreement.

(d) Effect of Withdrawal Notice. A notice of withdrawal shall not affect a participant's obligations under any Service Agreement with the Agency, nor shall such notice of withdrawal relieve such Participant from any contract or obligation entered into by Agency, as provided in Section 7.05. A notice of withdrawal relinquishes any rights of the Participants to funds, facilities, or property of the Agency.

7.03 Dissolution. The Agency may be dissolved in the following manner.

(a) The Board of Directors shall adopt a resolution recommending that the Agency be dissolved, and directing that the question of such dissolution be submitted to a vote of the governing bodies of the Participants to be held no later than forty-five (45) days after the date the resolution is adopted by the Agency.

(b) The resolution shall be deemed adopted when less than 2 Participants remain as members/have not adopted the resolution of dissolution.

(c) Upon the resolution being deemed adopted, a written notice of dissolution of the Agency shall be filed in the office of the Secretary of State and in the office of the Seward County Registrar of Deeds and in the office of the Saline county Registrar of Deeds.

7.04 Distribution of Assets. Upon dissolution of the Agency, the Board of Directors shall continue in existence for so long and be empowered to conduct such business of the Agency as is necessary to wind up the Agency's affairs.

7.05 Non-Impairment and No Relief from Liability. Anything herein to the contrary notwithstanding, no Participant may withdraw or in any way terminate, amend, or modify in any manner to the detriment of any holders of any obligation issued by the Agency, either this Agreement or any contract of or with the Agency. Neither withdrawal nor dissolution, obligation or undertakings whatsoever of the Agency, all of which shall continue, according to their terms in full force and effect and all Participants and former Participants shall continue to be bound thereby. Neither withdrawal nor dissolution shall relieve any Participant or former Participant, of any liability, obligation, cost, expense, duty or undertaking imposed by this Agreement or by any applicable law.

7.06 Formalizing Extended Liability. Prior to the movement of any municipal solid waste on behalf of the Agency, the Board of Directors shall formally clarify the extent of liability of any Participant. The base concept being that liability for waste generated by a specific jurisdictional area shall stay with that jurisdictional area in spite of withdrawal. However, future actions of the Agency cannot be construed to expand the liability of any Participant beyond the waste it contributed while a Participant in Seward County/Saline County Solid Waste Management Agency.

7.07 Involuntary Withdrawal. In the event a Participant fails to perform its obligations pursuant to this Agreement, the Board of Directors shall give written notice to such Participant specifying such failure to perform and establishing a reasonable period that the Participant shall have to fulfill its obligation pursuant to this Agreement. If the Participant's failure to perform its obligation is continuing, the Board of Directors may immediately terminate such entity's participation in the Agency and suspend all services of the Agency. This provision shall not limit the right of any other Participants to enforce the rights and obligations established pursuant to any Waste Management Plan, Service Agreement or other project or transaction under a separate agreement with the Agency until payment or performance of the obligation or completion of the plan, project or transaction in accordance with its terms.

ARTICLE VIII.

MISCELLANEOUS

8.01 Change of Form of Government. This Agreement shall survive a transition or change in the form of government of the Participants and any successor in interest shall be bound by the terms of this Agreement as if any original party hereto. In the event any Participant in which any Agency Facilities or properties are located is merged into any other political entity, the Agency shall retain full ownership and right to own, operate, use and control such Facilities and properties.

8.02 Not for Profit Entity. The Agency shall be operated as a not for profit entity and no part of its earnings, assets or properties shall inure to the benefit of any individual.

8.03 Assignment. This Agreement shall not be assignable by any party hereto.

8.04 Amendments. Any participant may propose an amendment to this Agreement by filing such proposed

amendment with the Chairperson of the Board of Directors, who shall immediately forward copies thereof to the Participants. Each Participant shall present the proposed Amendment to its governing body at its next regular or designated special meeting. In voting on any amendment, each Participant shall have one vote for every 1000 persons (rounded to the nearest 1000) with no Participant having less than one vote. If two thirds (2/3) of the weighted votes of the governing body of such Participant approve the amendment, as evidenced by resolution of the governing body of such participant, such amendment will become effective 30 days after approval by the Board of Directors. Abstentions shall be counted as negative votes. In no event shall any amendment terminate, amend or modify this Agreement in any manner to the detriment of any holders of any outstanding obligation issued by the Agency.

8.05 No Additional Liability. In no event shall this Agreement or any contract executed in compliance herewith, be construed to extend or enlarge the responsibility of any Participant or Contracting Party to dispose of Solid Waste beyond any requirement or obligation provided by law.

8.06 Execution. Separate copies of this Agreement are executed by the Participants with the understanding that, as and when each of the Participants have executed a copy, all of the Participants shall be bound to the same extent and purpose as if all such Participants had simultaneously joined in the execution of a single master copy.

8.07 Effective Date. After this proposed Interlocal Agreement has been circulated for consideration for at least 60 days, the effective date of this Agreement shall be September 14, 1993, if and when two or more Participants shall have adopted this Agreement within said 60 days of circulation.

8.08 An executed copy of this Agreement shall be filed with the Secretary of State of the State of Nebraska.

Approved and Adopted this ____ day of November, 2014:

COUNTY OF _____

VILLAGE OF _____

By: _____

By: _____

Date: _____

Date: _____

APPENDIX B: WESTERN NEBRASKA RESOURCE MANAGEMENT ASSESSMENT SURVEY

Introduction

Nebraska Recycling Council

This survey will assess the current accessibility and opportunities for resource management in western and south central Nebraska as part of a Waste Reduction and Recycling Grant with the Nebraska Department of Environment and Energy.

Your responses will help inform the state on current issues and assist the Nebraska Recycling Council in developing recycling models that will improve recycling rates, costs, and efficiencies. Thank you for your responses!

The burden time of this survey is approximately 10 minutes.

Community Information

1. Name and Title
2. Organization
3. Email Contact
4. Phone Number
5. Which community do you represent?
6. Select your county
7. Location of town, village, city. Indicate on map

Waste Management Overview

This section will explore how your community manages landfill waste.

1. Does your municipality provide curbside garbage collection? (Y/N – residents self haul)

IF NO, SKIP TO 10.

IF YES >>

2. Curbside Trash Collection: Please select from the following if your trash service is owned by the city or village, contracted with a private company or non-profit, or if residents choose their own waste management company (open hauling).

- City /Village Owned; Contracted; Open Hauling

IF CITY/VILLAGE OWNED or CONTRACTED >>

- Monthly residential rate for trash collection only (Recycling rates, if available, will be described in the next section)

IF OPEN HAULING >>

- How many haulers operate in your community?

3. Please provide the names of the hauler(s) managing your waste site or curbside collection. Waste site may be

a community dumpster, drop off containers, or transfer station.

4. Landfill or transfer station utilized

5. Landfill or transfer station fee

Recycling Options

This section broad overviews your recycling model and attitudes.

6. Does your community offer recycling options? (Y/N)

IF YES >>

7. Please Select all recycling options residents can choose from:

- Drop off containers; curbside collection; recycling center; other, please describe

8. Curbside Recycling Options:

- City/Village Owned; Contracted; Subscription

IF CITY/VILLAGE OWNED or CONTRACTED >>

- What is the cost for monthly curbside recycling pickup?

9. Please provide the name(s) of the recycling provider(s) operating in your community

10. Is your curbside recycling program single stream or required to be separated (Single Stream/Separated)

11. Recyclable materials:

- Mixed paper, shredded paper, cardboard, aluminum, tin, plastics 1 & 2, Plastics 3-7, glass, other

12. Where are your recyclable materials taken?

13. Approximate tons of materials recycled per month

14. Please indicate the most recent annual budget allotted for recycling, if supported

15. Based on feedback from your waste management provider, how contaminated is your recycling intake? (NRC offers waste audits to assess contamination as well as signage and customized recycling guides specific to your community to assist in improving contamination efforts).

- Likert scale: very contaminated; somewhat contaminated; unsure; somewhat clean; very clean

16. Based on community feedback, how motivated are your residents to recycle?

- Likert scale: very unmotivated, somewhat unmotivated, unsure, somewhat motivated, very motivated

17. Offer feedback on challenges or goals your community has on your current recycling program.

IF NO >>

18. Offer feedback on challenges or goals your community has on your current recycling program. If your recycling program is not currently operational and you offered it at one time, what led to it ending?

19. You selected "No" to having recycling options. Please describe your current waste management process and if you would like to work with the Nebraska Recycling Council on developing a program.

Composting, Construction, and Special Events

20. Does your community offer composting options? (Y/N)

IF YES >>

21. What materials are currently composted (listed options)

22. Please describe your composting program and how it could be expanded.

IF NO >>

23. You selected "No" or "Unsure" to having composting options. Please describe your current waste management process and if you would like to work with the Nebraska Recycling Council on developing composting solutions.

24. Does your community have a construction and demolition (C&D) landfill?

25. Please describe any special events or unique programs outside your regular collection for recyclable materials (Example: Electronic recycling events, tire recycling, household hazardous waste (HHW), CRT Amnesty event, car seat drive, battery drive, etc.)

26. If applicable, describe any organizations or green teams in your community that assist with recycling efforts. (Examples may be Boy or Girl Scout Troops, Keep Nebraska Beautiful affiliates, or local clubs or businesses making efforts to recycle, compost, or conserve.)

Thank you for your responses!

27. Please add any additional feedback or commentary on the resource management available in your area and where you would like to see it improve.

Your responses will be collected into a report that will help NRC and the Nebraska Department of Environment and Energy create more efficient and robust opportunities for resource management.

28. NRC has a membership program that supports businesses, municipalities, and individuals in their recycling goals. Membership includes access to the membership directory, discounts on waste audits, discounted membership to recyclingmarkets.net, and more.

Enter an email to be sent more information.

APPENDIX C: REGIONAL AND NATIONAL FUNDING OPPORTUNITIES

WASTE REDUCTION & RECYCLING ASSISTANCE PROGRAM (WRRAP)

A rebate is available for 50% of the costs to establish a recycling or composting program.

Type: Rebate

Eligibility: Businesses or nonprofit organizations in Lancaster County

Funding: Up to \$750

Deadline: Rolling

More Information: lincoln.ne.gov/city/ltu/solid-waste/recycle/wrrap

CLOSED LOOP FUND/CLOSED LOOP PARTNERS

Funding for replicable and financially viable recycling infrastructure projects across these categories: collection, sortation, and processing/end markets.

Type: Loan, Venture Capital

Eligibility: Municipalities, private companies

Funding: \$250,000 to \$5,000,000

Deadline: Rolling

More Information: www.closedlooppartners.com/apply

THE RECYCLING PARTNERSHIP

Funding is only available for residential curbside recycling programs to fund carts and education.

Type: Grant

Eligibility: Communities with 4,000+ households.

Funding: \$7 per cart (up to \$500,000) plus \$1/household for outreach

Deadline: Rolling

More Information: recyclingpartnership.org/recycling-cart-grant

USDA SOLID WASTE MANAGEMENT GRANTS

Funding for organizations that provide technical assistance or training to improve the planning and management of solid waste sites.

Type: Grant

Eligibility: Communities with a population of 10,000 or less. Nonprofits, municipalities, and academic institutions

Deadline: October 1 - December 31

More Information: www.rd.usda.gov/programs-services/solid-waste-management-grants

ETHEL S. ABBOTT CHARITABLE FOUNDATION

Grants are reviewed for the potential to influence people's lives and to ultimately make a difference in the community.

Type: Grant

Eligibility: Nebraska 501(c)(3)s and government entities with focus in Lincoln, Omaha, and Western NE

Deadline: Rolling

More Information: www.abbottfoundation.org

ABEL FOUNDATION

Emphasis on health and human service, higher education, and community development programs.

Type: Grant

Eligibility: Nebraska nonprofits, primarily Lincoln

Deadline: March 31, July 15 and October 31

More Information: www.abelfoundation.org

KEEP AMERICA BEAUTIFUL/COCA-COLA

Public Spaces Recycling Bin Grant Program Provides recycling bins for public spaces, e.g. downtown areas, athletic fields, venues and parks.

Type: Grant

Eligibility: Municipalities, schools, community organizations, nonprofits

Funding: Grant provides bins instead of money

Deadline: Typically mid-November through December

More Information: kab.org/grants/coca-cola

COOPER FOUNDATION

Program Areas: Arts, Community Improvement, Education, the Environment, Human Services and the Humanities.

Type: Grant

Eligibility: Nonprofits, schools, government entities primarily in Lincoln and Lancaster Cty.

Deadline: January 15, April 1, July 1, October 2

More Information: cooperfoundation.org/for-grantseekers

MID-NEBRASKA COMMUNITY FOUNDATION

Grants for non-profit organizations in the region; areas of interest include Community Development and Environment

Type: Grant

Eligibility: Custer, Dawson, Frontier, Hayes, Keith, Lincoln, Logan, McPherson, and Perkins Counties

Deadline: January 15, April 15, September 15, and December 15

More Information: www.midnebraskafoundation.org

NDEE WASTE REDUCTION AND RECYCLING INCENTIVE GRANTS

Provides grants to assist in financing sound integrated waste management programs and projects.

Type: Grant

Eligibility: Nebraska businesses, organizations, municipalities

Deadline: September

More Information: deq.ne.gov/NDEQProg.nsf/OnWeb/WRRIGP

NDEE LITTER REDUCTION AND RECYCLING GRANTS

Provides funds to support programs to reduce litter, provide education, and promote recycling in Nebraska.

Type: Grant

Eligibility: Nebraska businesses, organizations, municipalities

Deadline: September

More Information: deq.ne.gov/publica.nsf/pages/WAS075

PUBLIC INFORMATION AND EDUCATION (PIE) MINI-GRANT

Grants support the presentation and dissemination of information and perspectives that will stimulate enhanced environmental stewardship.

Type: Grant

Eligibility: Nebraska organizations

Funding: Up to \$3,000

Deadline: January, April, July, October

More Information: nebraskaacademyofsciences.wildapricot.org/PIEGrant

NEBRASKA ENVIRONMENTAL TRUST GRANTS

Funding for multi-year grants for projects in the areas of Habitat, Surface and Ground Water, Waste Management, Air Quality, Soil Management

Type: Grant

Eligibility: Individuals, private organizations, and public entities

Deadline: September

More Information: environmentaltrust.nebraska.gov/grants/index.html

PETER KIEWIT FOUNDATION

We invest in proven and promising programs, systemic solutions, general operations, capital projects, planning and capacity building, and policy development.

Type: Matching Grant

Eligibility: 501(c)(3) organizations and governmental

Funding: Funding for 25%-50% of total project costs

Deadline: January, April, July, October

More Information: peterkiewitfoundation.org/for-grantseekers/application-process

NEBRASKA RECYCLING COUNCIL

Funding to purchase or repair recycling equipment including trailers, containers, forklifts, balers, etc.

Type: Grant

Eligibility: Nebraska organizations, businesses, municipalities

Funding: Up to \$20,000

Deadline: 15th of each month

More Information: www.nrcne.org/recycling-equipment-grants

CAPTAIN PLANET FOUNDATION

Support for students to design and implement hands-on environmental solutions are eligible for project funding.

Type: Grant

Eligibility: Schools

Funding: \$500-\$2,500

Deadline: January and July

More Information: captainplanetfoundation.org/grants

NEBRASKA DED FOUNDATION RESOURCE DIRECTORY

This directory provides information on numerous foundations, both in and out of Nebraska

Type: Other

More Information: opportunity.nebraska.gov/program/foundation-resource-directory

LINCOLN COMMUNITY FOUNDATION

Open Door Grants may be applied to operations, programs or capital projects.

Type: Grant

Eligibility: Nonprofits in Lincoln and Lancaster County

Funding: Up to \$10,000

Deadline: Rolling

More Information: www.lcf.org/helping-nonprofits/open-door-grants

CDBG: COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

CDBG provides grants to states and localities

Type: Grant

Eligibility: States, localities, individuals

Funding: \$5,000 to \$500,000

Deadline: Varies Depending on the Cycle

More Information: opportunity.nebraska.gov/program/community-development-block-grant