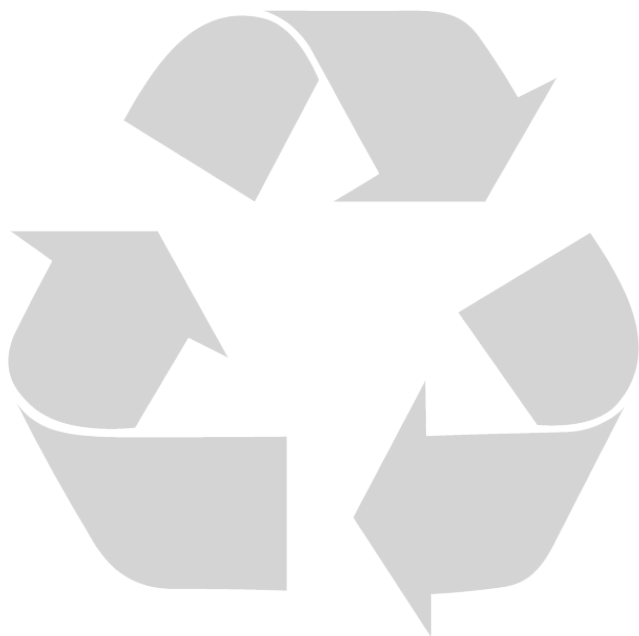


Commercial Recycling: A Local Policy and Strategy Guide



Produced by the New Mexico Recycling Coalition
~ October 2015 ~



Special thanks to Skumatz Economic Research Associates (SERA) Urban Sustainability Directors Network (USDN), Eco-Cycle and Institute for Local Government (ILG) whose research helped shape this guide.

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Produced by the New Mexico Recycling Coalition, October 2015
www.recyclenewmexico.com

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WHY YOU WANT TO READ THIS GUIDE

This document is designed to start a discussion on policies shown to increase recycling in a community. It contains data, case studies and general information about engaging the business community, as well as, best practices for a municipality navigating commercial collections.

Fortunately, good data is easy to find on engaging businesses and setting out commercial recycling service. Only the information relevant to our unique New Mexico recycling landscape has been highlighted in this guide. Any one of the strategies outlined could be used to increase recycling, to make an existing program more efficient or to ensure that a program remains a valuable service to community members, right here in New Mexico.

Also, there are a handful of national organizations discussing business recycling as a crucial piece of a community's overall recycling program (Comere, 2015). Accommodating the commercial sector can help to improve the residential recycling program. When business owners are participating in the recycling program, it shows customers and local residents that recycling is just as important a service as trash removal. With most community members on board, recycling and diversion can then become an integral part of waste management in the community.

No matter what the motivation for adding a commercial recycling program, research proves that in order for any recycling program to be effective it must have consistent material flow and community support. This guide will show that the business community is a clear path to achieving an overall successful recycling program.



**“Recycling is not only good business,
but also good for businesses”** (ASTSWMO 2014).

PROJECT OVERVIEW

The New Mexico Recycling Coalition (NMRC), working in partnership with the New Mexico Environment Department (NMED), agreed to lead research and hold stakeholder group meetings to help develop strategies to increase recycling in New Mexico.

House Memorial 51 (HM51), “Study Solid Waste Recycling,” passed in 2014 and sponsored by Representative Jeff Steinborn, requested that strategies be developed to reach the state recycling rate goal of 50%. The state is currently at a 16.27% recycling rate (NMED, 2013). One of the Memorial deliverables is to develop recommendations for legislative and state agency actions designed to enable New Mexico to attain the 50% recycling rate goal, including budget recommendations and a projected time line (NMRC, 2014).

After extensive research, it is clear that states with the highest recycling rates work in concert with local governments. A variety of policies, bans and outreach programs are employed together, on a state and local level to reach recycling rate goals. A number of other positive outcomes seem to follow, including: a culture of recycling behavior, reduced greenhouse gas emissions (GHGs), and increased jobs in the recycling sector. Research suggests that higher diversion rates can be linked to increasing other city-, county- and statewide objectives, including: climate action, sustainability, and economic development.

While household recycling is often the focus of municipal programs, commercial recycling is the next step toward increasing recycling rates. With grant funding from a Waste Management and Keep America Beautiful Think Green Grant, NMRC could develop this guide for New Mexico municipalities on best commercial recycling practices. Along with other research on state-wide policies to increase recycling, NMRC can start the discussion on valuing more waste as a resource and pushing our recycling rate upward.

States with the highest recycling rates work in concert with local governments.

DETERMINING COMMERCIAL WASTE STREAMS

In general, the terms “business” and “commercial” in this guide refer to an entity which operates with a business license within the city or county limits; most often retail, service, and office buildings. Some communities have chosen a wider definition in their ordinances to include institutions and organizations: churches, schools, multi-family dwellings (not often serviced within residential programs), and hospitals. Outreach tactics may vary, but all strategies mentioned in this guide could be effective for the expanded group.

Interestingly, specific data on commercial waste streams, as separate from residential streams is rare. Using data from a few different sources, municipalities can estimate what kind of material and how much is available from commercial sources.

The general consensus is that between 45% and 60% of a community’s waste is business-generated.

The Environmental Protection Agency’s (EPA’s) annual report, “Advancing Sustainable Materials Management: Facts and Figures” may be the best comprehensive data available for use in planning recyclable material management, but even the EPA consolidates commercial, institutional and residential wastes in the category of municipal solid waste (MSW). According to EPA figures, cardboard and office paper are among the largest waste categories produced by the residential sector and the commercial sector combined. Yard debris and food waste represent the second and third largest segments of American waste, respectively.

Total MSW Generation by Material 2012
251 Million Tons (before recycling)

MSW Material	% of Total
Paper & Paperboard	27.4%
Food Waste	14.5%
Yard Trimmings	13.5%
Plastics	12.7%
Metals	8.9%
Rubber, Leather, Textiles	8.7%
Wood	6.3%
Glass	4.6%
Other	3.4%

Source: EPA 2013

In 2012, the City of Denver hired a consulting firm to study commercial recycling programs across the US. This comprehensive report detailed responses from dozens of communities with commercial recycling policies and could also serve as a resource. Data on waste composition comes from only 10 reporting communities, but the percentages are quite close to the comprehensive national data.

Average Percent of Key Materials from 10 Commercial Waste Reporters

Key Material*	% of Total
Paper	25%
C & D	16%
Other Organics	16%
Plastics	13%
Food	12%
Metal	5%
Glass	3%
Hazardous Waste	1-2%
E-waste	1-2%

*Key materials make up over 3/4 of the commercial waste stream from the reporting communities. (SERA, USDN 2013, Figure 3.2.3).

The California Integrated Waste Management Board also collected data on waste disposal by key types of commercial establishments. The results produced this chart of top recyclable commodities by sector. Again, we see that papers and organics surface as top commodities within the commercial waste stream.

Sector	Top Recyclable Commodities			
	#1	#2	#3	Others
Restaurants	Food 53%	Cardboard 25%	All papers* 9%	Plastics** (7.7%), glass (2.4%), metal (2.0%)
Fast Food	Food 39%	Cardboard 29%	All papers 19%	Plastics (5.9%), glass (2.9%), metal (1.0%)
Hotels	Food 39%	All papers 27%	Plastic 8%	Cardboard (7%), yard waste (6%), glass (5.3%), metal (3.1%)
Grocery Stores	Cardboard 57%	Food 29%	Papers 4%	Plastic (3%)
Retail	Cardboard 61%	Food/Yard 9%, Lumber 9%	All paper 6%, Plastics 6%	
Large Office Buildings	All paper 48%	Food 17%	Plastics 12%	Cardboard (5%), lumber (4%)

Source: Cascadia 2006, Table ES-1.

While other state and national data may be sufficient for most, the level and type of commercial activity in any given community might give hints to different generation rates of some products. A municipality could capture local waste stream data by conducting a commercial waste audit, meetings with the Chamber of Commerce, the small business development center and the business owners themselves. Meetings can also be used for gathering initial input and stakeholder support, which will be critical before accepting any local policies.

According to data from reporting communities, businesses largely generate cardboard, paper and food.



Photo Courtesy: Advantage Media

When a municipality wants to target commercial waste, it is logical to begin with key materials as described in the previous charts. Most New Mexico municipalities have a collection and processing system for residential paper and cardboard, but food waste handling is less common. Any material handled at the residential level, could be incorporated into commercial recycling collection, too, but keep in mind that it is easier to grow the collection of a material as opposed to adding a new material for businesses that previously was not collected. Ensuring the collection and marketability, first, before setting policy will more likely lead to success.

Ensuring collection and marketability of materials first, before setting policy, will more likely lead to success.



PLANNING FOR A COMMERCIAL RECYCLING PROGRAM

Covering Short- and Long-Term Costs

Like any other local government program, commercial recycling collection requires evaluation of the funding structure. The common perception is that recycling should be free to the consumer; however, it is not free for the managing entity. In order to keep recycling free for the consumer and thus keep consumers participating in the recycling program, municipalities must evaluate and adjust fee structure to include coverage of long-term costs associated with growth. What kind of staff and equipment will be needed to ramp up education, enforce policies, draft contacts, etc.

To ensure a sustainable recycling program, the managing entity must either set appropriate fees which cover short- and long-term costs or work with haulers to manage collection of commercial material. A variety of funding mechanisms may be used to cover costs of municipal-run service. Communities which choose to work with haulers can enact local policy to ensure that haulers provide free or reduced recycling service to the commercial sector. Haulers will then need to set appropriate base fees which cover their own short- and long-term costs.

Funding Recycling Programs and Facilities

“Recycling programs require ongoing funding that has some level of stability even with variable markets and changing levels of diversion/recycling,” (ILG, p2)so, it is important to evaluate solid waste rates and fees during the planning stages of a commercial recycling program. Research into case studies for this guide turned up a few communities which had implemented very progressive policy to increase recycling volumes, but ultimately failed when the program couldn’t pay for itself. One rural community with municipal-run collections passed a mandatory recycling ordinance in 1996. The city council approved this ordinance, but not an appropriate fee structure. For 10 years, the recycling system worked, but in that time equipment began failing and staff costs increased. Then, over the next 10 years, rate increases were still not approved. Recently, City Council abolished the ordinance and cut the recycling program altogether until a hauling contract could be written. The community hopes that a hauler will be able to provide them with recycling service after 20 years of what they thought was a stable program.

Municipalities can use a combination of ways to cover the costs of administering their recycling programs. This includes municipal-run programs and those with franchises or hauling contracts. Haulers will only provide some services related to waste and recycling, other services would still be the responsibility of the municipality.

Listed below are several mechanisms that a community can use to fund a recycling program:

- **User fees/rates on the collection of materials**
- **Franchise fees on solid waste and recycling service provider**
- **Solid waste facility gate “tipping” fee**
- **Local agency “host” fees on recycling or disposal facilities**
- **Sale of recyclable materials**
- **Agency general fund**
- **Locally imposed taxes**
- **Grants**

The Institute for Local Government details each funding mechanism and how it can be implemented. Retrieve from: www.ca-ilg.org/post/financing-recycling-programs-and-facilities-understanding-options-and-resources

If your local recycling program cannot make ends meet, then it's time to re-evaluate the fee structure so future growth is possible.

Community Preparation

Any commercial recycling program, whether it's mandatory or voluntary, requires community preparation. Several policies to increase business recycling are outlined in this guide and each one of them will require careful, strategic outreach to help the community understand. Concepts that municipalities know all too well aren't always on the minds of local politicians and residents. Recycling service has a cost. Prices in recycling commodity markets, changing dramatically from year to year, are not fully reliable. Consistent volume and good quality are keys to a sustainable program. Each of these concepts must be discussed and accepted before new recycling policies can be set in place.

COMMERCIAL COLLECTIONS PLANNING

When a managing entity is considering commercial recycling policy, the entity must also consider efficient commercial collection service. Each municipality then has the decision to extend its own recycling collection program, or to contract out the service. There are four types of collection service which can be combined in creative ways to efficiently manage municipal solid waste and recycling in a community.

- **Municipal or Solid Waste Authority**
- **Private Collection Via Contract**
- **Franchise Collections**
- **Open Market Collections without Franchise**

Collections planning must also include processing and marketing infrastructure available to support each material. What equipment is already available? Is the processing center operating at capacity?

Government or Municipally-Operated Collections

If the managing entity decides to incur the cost of expanding recycling service, then proper rate structuring is a crucial first step. Assess the needs of current infrastructure and staff, then calculate future costs, including: maintaining older equipment, purchasing new equipment, expanding staff, outreach and education materials, and so on.

To allow the managing entity to begin increased collections without huge capital investment, match initial commercial collection with the capabilities of existing trucks. For example, if businesses currently use 3 Cu yd containers for trash, then the easiest addition for recycling collection would be to employ 3 Cu yd containers. In many cases, a business with two trash containers will be able to reduce its solid waste to one container just by sorting out cardboard. A managing entity can designate the other container for recycling.



Silver City used rate structuring to repair and replace old equipment.

Is there redundancy in the solid waste fleet? Sometimes there are trucks, unutilized, that could be put to use for a commercial recycling route. If routes are set up efficiently, the entity may be able to start commercial collection by running a truck for just half a day each week, operating for trash collection the rest of the week.

A managing entity can begin increasing productivity at a lower cost by utilizing the community's alternative labor pools. Sorting recyclables or loading a baler can be accomplished with volunteers or with community service workers. Just make sure that this workforce is properly documented within the Operations Plan.

**Increased collections without huge capital investment?
Match initial collection with the capabilities of existing trucks.**

Franchising and Public-Private Partnerships for Collections



In a National Waste & Recycling Association (NW&RA) and Solid Waste Association of North America (SWANA) joint advisory document, the organizations suggest that in advance of starting the public selection process to contract with a private partner, decisions on important topics must be evaluated. These topics include: ownership of recyclable materials, type of program used to collect the recyclables, and the services necessary to deliver the recyclables to the processing facility (2015).

Then, a managing entity can choose to manage contracts or franchise agreements for commercial recycling collection. In combination with a local policy to increase recycling a hauling contract or franchise which also incentivizes recycling, can be very effective. For example, a municipality can require all haulers serving the area to build the cost of recycling into the base rate for solid waste service. Businesses will then want to “take advantage” of the service they already pay for.

If an agency has an exclusive contract with one solid waste hauler to serve the commercial sector, review the contract agreement for recycling service and reporting requirements. Make sure that language incentivizes recycling rather than landfilling.

In an open competition system, haulers offer services to businesses and generally set their own rates and service levels. So, it would be the responsibility of the municipality to make sure franchise/permit language included incentives for recycling. Agencies with an open competition system need to be sensitive to competitive issues that may impact haulers or recyclers (NW&RA, SWANA 2015).

Most haulers or recyclers are eager to comply with recycling requirements. However, in certain situations, asking haulers or recyclers to enforce the ordinance by identifying waste generators who do not recycle could put some haulers at a competitive disadvantage with their customers if other haulers ignore the enforcement requirements (ILG, 2011).



Photo Courtesy: Silver City 2015

Most Effective Strategies to Increase Business Participation

With hundreds of successful program strategies to choose from, it can feel overwhelming for a municipality to decide which strategy will work best, locally. One thing is for sure, working to advance current systems to improve local recycling efforts has reportedly been more successful than creating entirely new procedures.

The following strategies have been chosen for this publication because they have been found to produce the highest tonnage and the lowest cost to the jurisdiction. All strategies are organized into one of 3 categories: **Incentives & Rate Structure**, **Working with Haulers**, and **Mandates & Bans**. For maximum effectiveness, it is recommended that strategies be combined and that plans are discussed in the same order of this guide. An e-waste landfill ban, for example, would probably not be as effective if strategic funding planning and preparing the community did not come first.

For maximum effectiveness, implement rate structure alongside another local policy.



INCENTIVES & RATE STRUCTURE

Rate structure programs can come in many different forms. Doing what it takes to get the program right is just as important—if not more so—than making the decision to adopt the program in the first place (Evans, 2013). With this in mind, commercial waste diversion efforts can reduce solid waste hauling fees, but changes to commercial- sector solid waste management can also add costs to businesses for increased handling, separation or equipment (ILG, 2011). A municipality must understand the costs associated with each commercial recycling policy and discuss how to best cover those costs.

Multi-Tiered Pricing Structure

SUMMARY: Tiered rate structures ensure a variety of benefits, regardless of whether the agency has a mandatory commercial recycling program (ILG, 2009). If implemented properly, tiered rate structures will also ensuring proper funding into the future.

A tiered pricing system for solid waste disposal in residential programs is often called Pay-As-You-Throw (PAYT). A special colored bag system is often used for residential customers and is reported as the easiest for local leaders to implement (Evans, 2013). A municipality may use this same structure for commercial recycling, as well. Three different sized trash containers, with cost proportional to size, is the standard for commercial customers. The recycling container remains one size, just large enough to accommodate increasing amounts of material as items are reduced or diverted from the trash and placed into recycling. Municipal fees can also reflect number of pulls as a separate charge, since this remains constant regardless of dumpster size.



As long as the unloading mechanism stays constant, sizes of containers can change to match customer needs.

Photo Courtesy: Affordable Dumpster Rental

CONSIDERATIONS: In order for a tiered fee system to have the maximum effect on diversion goals, the bottom tier for solid waste disposal should be the municipality’s break-even for collection of solid waste with recycling services built in and tiered fees need to increase significantly between container sizes in order to provide incentive. As in Silver City, NM, maximum fees at each tier can be phased in over time to ensure long-term cost coverage.



OTHER CONCEPTS:

Program Type	Program Title	Summary of Program
Incentive	Recycling Cost Embedded Into Solid Waste Rate Structure	With or without a tiered-pricing structure, recycling service fees can be embedded into solid waste fees, to incentivize use
Incentive	Offer Free Recycling Container	With sufficient local program funding, municipalities may offer free outside collection containers and desk side bins
Incentive	Waste Service Discount	Although not as effective as “built in” fees, discounts on solid waste could be given to businesses which divert recyclables

Adapted From: SERA , USDN 2013, Figure 3.2.3.

Implement a commercial, multi-tiered pricing structure to ensure proper funding and to incentivize diversion.

WORKING WITH HAULERS

Prior to releasing a request for proposal, the managing entity should solicit input through public workshops from the recycling community, local haulers, elected officials and the general public. These workshops could help in defining the scope of work for the services requested and minimize confusion through the proposal/bid process, especially if the local agency does not currently manage any hauling contracts. Working with haulers includes a variety of tactics from requiring haulers to provide recycling services to setting hauler's rates, so communication is important.

Cooperative Collection

SUMMARY: It is quite common to develop partnerships with haulers in order to serve both residential and commercial customers. Through all phases, partnerships with haulers can be a helpful cost-savings to the managing entity. Haulers may be solicited for commercial waste and recycling collection. Or, if contracted haulers already exist for waste services, agencies may require haulers to provide the local municipality's recycling drop-off information to their customers. This is a softer approach than universal recycling, which would require haulers to offer the collection and hauling of the recycling, not just information pamphlets.

CONSIDERATIONS: Drawing up a fair contract can be an undertaking, but the largest benefit is the sharing of cost and duties, once a hauler (or haulers) has been chosen. Be aware that existing contracts, especially if they are old, can dis-incentivize recycling efforts, working against the managing entity trying to set policies in place. Revise old contracts first, ensuring that there are no barriers to commercial recycling collection. In some cases, the hauler could "own" all waste materials whether they provide recycling collection, or not. If a town then wants to pick up commercial cardboard, they are prohibited by their own contract. Or, vice versa, the town could own all materials prohibiting any hauler partnership. Add provisions with incentives for businesses or haulers.

Make sure that haulers are not responsible for enforcement of the managing agency's ordinance. If all businesses are required to recycle, for example, haulers could be given tags to alert a non-compliant business, but any fines or enforcement should come from the managing entity.

OTHER CONCEPTS:

Program Type	Program Title	Summary of Program
Haulers Incentive	Universal Recycling	Hauler license requires OFFERING recycling to business customers for one set fee that is lower than waste service.
Haulers/Business Incentive	Trash Haulers to Implement Tiered Pricing Structure	Require all trash haulers to price hauling service based on volume, so businesses can choose to throw less, recycle more, and save.

Adapted From: SERA , USDN 2013, Figure 3.2.3.

Ensure that haulers are not responsible for enforcement of the managing agency's ordinance.

MANDATES & BANS

Mandates and bans may sound off-putting, politically. However, several studies indicate that these strategies deliver 10-30 times the amount of tons per dollar spent by the jurisdiction (SERA, USDN 2013). Mandates, and especially bans, are commonly paired with tiered-pricing structure or other incentives as a “carrot and stick” approach. While these approaches are often referred to as the “sticks”, the Institute for Local Government mentions that businesses actually appreciate mandated recycling (ILG, 2008). This could be because mandates come with structure and clear guidelines. Any recycling outreach professional can assert that clear, simple rules make recycling much easier for residents.

MANDATORY RECYCLING FOR MATERIAL(S) COMMERCIAL-WIDE

SUMMARY: Efficient recycling infrastructure is the foundation for a simple local policy to mandate, or require, that businesses must recycle, at least, one material. For example, commercial cardboard may be a good beginners mandate in a community which source-separates its recyclables. Cardboard is easily recognizable, has stable markets and can be collected by hand, if necessary. Mandates on broader categories follow increased efficient collection and processing systems.

CONSIDERATIONS: Enforcement and providing a “level playing field” is critical and it also costs money. The managing entity must be prepared to explain concepts to the public and to businesses whose costs might increase as a result of the new local ordinance. Managing entities may need to prioritize where to spend their “political time” in order to get program enforcements passed, but the mandates and bans must be enforced in order to be effective (SERA, USDN 2013). If a city council is only likely to approve one measure at a time, rate structures should come first.

Pay close attention to exemptions, making sure that they are fair. Equal care must be taken to ensure that mandates do not incur unreasonable costs to businesses. Be prepared to inform business owners on why exceptions are made. Many communities have reported success in rolling out separate programs for “large” and “small” businesses. Small businesses may receive a free co-mingled recycling container, for example, while large businesses must pay for service or self-haul.



Bans are commonly chosen as a state-wide approach to keep toxic or hazardous materials out of landfills, but can be used at the local level, as well. Statewide bans affect all municipal programs, and may include exemptions. The state of New Mexico bans lead-acid batteries from the landfill or incineration, for example. Business and household generators of these batteries must find an outlet to properly recycle them. Statewide battery bans, like this example, along with numerous outlets for recycling have ensured an extremely high recycling rate for lead-acid batteries. In fact, the EPA estimates that nearly 98% of the spent batteries are recycled.

Municipalities can impose stricter bans on local materials if it causes a significant threat or even if it can be efficiently recycled. Public-private partnerships can be a cost-effective way to collect, haul, process or re-use a material that has been banned from the landfill, locally or statewide. These partnerships can create jobs and save the managing entity money.

Material bans can induce economic development around a material once it is in steady supply.

OTHER CONCEPTS:

Program Type	Program Title	Program Summary
Requirement Through Ordinance	Equal Space Enclosure	Requires new buildings to design and allocate space for recycling bins, similar to existing requirements for trash bins.
Mandate	Targeted Mandatory Recycling	Mandatory recycling required for selected commercial generators (organized by type, trash size, or employee thresholds). Can phase in businesses by groups.
Mandate	Targeted Commercial Food Scraps Program	Commercial food scraps collection for selected business types (Grocery, Restaurant, etc). Pilot, then full-scale.
Ban	Selected Material Ban from Landfill	Material ban from collection or disposal from commercial generators. May be enforced at disposal site or required through haulers.
Ban	No Bin No Barrel	No trash may be collected if recycling is not set out for collection.

Adapted From: SERA , USDN 2013, Figure 3.2.3.



Targeted material bans are among the most effective strategies at increasing collection volume.

ENFORCEMENT STRATEGIES

Educational & Technical Assistance to Businesses

Every strategy in this guide requires an educational component in order for effective diversion. Education and outreach programs are among the most widely recommended by stakeholder committees and within strategic plans. However, research by SERA & USDN, shows that outreach programs alone may not be the most cost effective, and may not maintain long-term results. For this reason, many communities use technical assistance and education to softly enforce the requirements. “The carrot and stick” approach, as it is widely known, gives businesses the resources to succeed and many chances to comply with a soft approach (2013). Non-compliance after a certain period, would then be reprimanded.

Another successful strategy, as documented in Silver City, NM, uses a combination of door-to-door commercial recycling education and rate incentives. Personal interaction with an immediate cost savings for diversion efforts is a winning duo, which gathers high commercial support without any mandates. When these strategies are employed alongside a material ban or recycling mandate, a community is on the way to achieving extremely high recycling goals.

Business-specific recycling outreach programs, as a tool to enforce new commercial recycling requirements, can include several different methods. Collier County, Florida, for example provides free assistance to business owners and employees on the local requirement (all businesses must recycle single stream) but also, how to implement a recycling program through presentations and a training DVD. Some cities find it easier to focus outreach on specific sector behaviors and practices. For instance, hotels are presented with a different outreach kit than office buildings or grocery stores.



Photo Courtesy: Collier County, FL

Some communities provide free waste audits for businesses in order to show them how much material could be diverted. Data gathered is also helpful for the municipality, as it can be used to estimate the potential volume and revenue potential from each business who uses the service.



Mecklenburg County is offering a limited number of free interior recycling bins to businesses that undergo a mini-waste assessment with County staff.

Phase-In Approach

Grouping businesses by type or volume of material produced or by number of employees allows a municipality to bring changes to the commercial recycling system slowly over time. All recycling ordinances, even in very rural areas, will need careful planning and strategic outreach by both the municipality and the business. The phase-in approach to commercial recycling ordinances brings advantages to both the municipality and the business.

The ordinances outlined in this guide are the very top volume producing strategies, so it is important to prepare for this volume or the community will lose trust and the municipality will be overwhelmed. In order to get the best compliance and gain the trust of the business community, the phase in approach will give each business owner time to make any necessary changes, too.

Austin, TX has implemented a universal recycling ordinance phased in over five years. In this ordinance, property owners are required to provide recycling containers. Commercial properties and multi-family dwellings were categorized by size. At the onset of the ordinance in 2012, only the managers of the largest facilities were required to provide recycling. Each year, another smaller sized group of business managers will be required to comply. By 2017, all non-residential properties will be participating in the recycling program. Below is an info-graphic developed to help educate about the approach.



Photo Courtesy: City of Austin, TX

Awards

An award program existing alongside any strategy discussed in this guide, can produce great results. Implementing an award program without any other strategy is likely to produce a small amount of increased tonnage at high costs. Rewards programs can be organized for businesses (e.g. meeting a tonnage goal or reducing waste by a certain amount) and for haulers. Haulers can be rewarded by extending contracts or waiving franchise fees for certain behavior.



Award programs are a smart way to educate businesses on recycling issues and to prepare the community for changes to the solid waste system.

Portland, Oregon does not actively enforce their food waste recycling ordinance. Instead, they have chosen to implement the Sustainability at Work program, which offers free technical assistance, collection containers and a 3-tiered green awards program to recognize a business's positive impact on the environment (Eco-Cycle, 2014).

Inspections & Fines

While the City of Portland does not actively enforce their ordinance, they do have the ability to inspect a business and issue fines for non-compliance. Municipalities can be reluctant to impose fines, especially with a program as simple as recycling. Recycling programs cost money and time. They also create jobs and can be attributed to higher quality of life in a community. Recycling service is a good service to provide. If the managing entity is going to take the time and spend the money, then it seems enforcing the rules would be an efficient use of resources.

The City of Portland's approach is a good example of the "we have it, but don't make us use it" idea. Give businesses plenty of chances to make the right choice, comply with the ordinance, get on board; within a reasonable time-frame, the municipality can expect to see compliance and participation, especially if the chosen ordinance is a good thing for the community as a whole. The benefits will begin to show.

Even if the managing entity does not want to actively enforce a program, as this can be very costly, staff and resources should be in place in the event that an inspection needs to occur. This same staff can have plenty of other duties in the meantime, namely awards programs and outreach, in order to help “sell” the program or changes to the system. The recycling program should be fully funded to ensure the implementation of all components of the ordinance, to include enforcement.

**Award a businesses for
voluntary participation in a recycling program.**

Measuring Success

Choose Evaluation Methods

If a community invests in a basic residential recycling program, isn't it reasonable to assume that the community would like to watch continued growth and success of that program? Commercial recycling ordinances, in their simplest form, are an investment in the continued growth and success. Measuring this success will be easy if municipalities consider evaluation methods at the onset of commercial recycling program discussion.

Set Goals

Setting initial goals will be important, too. To help in goal setting, understand what was the initial motivation in creating the recycling program. What was the vision then? Now, what can the managing entity focus on, increased participation, increased overall recycling rate, or decreased municipal solid waste going into the landfill?

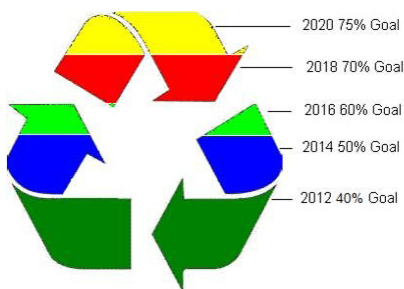


Photo Courtesy: Collier County, FL

Set a Standard

If no current data exists for certain aspects of the local recycling program, create a system to measure before any policies go into effect or any more outreach occurs. Is the goal to increase participation? Then, measure the level of participation as it currently stands. Is the goal to increase the recycling of one material, say, cardboard? How much is currently recycled? Any data that can be collected will be helpful in growing the program; from measuring successes to increasing participation to identifying inefficiencies. Data can be collected from a variety of sources, including haulers and markets, which purchased material.

Measurements

Make sure to use consistent measurements. If the goal is to increase the *tonnage* of cardboard sold to market, make sure that cardboard tonnage can be calculated. Keep America Beautiful (KAB) has created an excellent resource in helping communities to convert volume to weight. Retrieve here: www.recycle-bowl.org/wp-content/uploads/Recycle-Bowl-Estimating-Data-Fact-Sheet.pdf

**Commercial recycling ordinances
are an investment in the continued growth
and success of the local recycling program.**

Advertise Successes

Everyone likes to hear how well they are performing, businesses included. Keep tabs on the success of the program all the way through. Have two more businesses just voluntarily signed up to recycle? Have the second group of businesses just been phased into the mandatory recycling ordinance? Write a newspaper article. Post the information on the local authority's website. Tell the world!

(And Maybe Failures, Too)

Mentioning the failure to reach a certain goal could also be used as motivation, if it is carefully executed. Maybe lofty recycling rate goals were set based on the number of businesses in town, but too many exemptions in the recycling ordinance, meant that the community fell short. This could be a great opportunity to include the previously exempt business in another program using the message that the community fell short of its goal and needs more participation.

CASE STUDIES FOR EFFECTIVE COMMERCIAL RECYCLING

Initial research identified many communities which have adopted a variety of commercial recycling policies in order to reach state or local goals. Detailed phone or e-mail interviews were conducted with a smaller group of communities to ensure that each case study was relevant to the New Mexico solid waste and recycling landscape. Contact information is provided for anyone interested in gathering more information about these case study communities.

Material Bans Various Communities

Mandate/Requirement for Hauler
Aspen, Colorado

Mandate/Requirement for Businesses
Mecklenberg County, North Carolina

Outreach/Rate Structuring
Silver City, New Mexico

Material Bans

Chittenden County, Vermont has made it illegal for residents or businesses to dispose of hazardous materials and has also included a long list of commonly recyclable items.

cswd.net/trash/items-banned-from-landfills/

Fairfax County, Virginia has made recycling a requirement for businesses. It is also illegal to mix any identified source-separated recyclables with trash or yard waste.

www.fairfaxcounty.gov/dpwes/recycling/requirements.htm#section4

The State of Oregon has banned a list of hazardous materials, tires, abandoned vehicles and electronics from landfills with “the intent to divert recyclable materials from Oregon’s landfills...” .

www.deq.state.or.us/lq/sw/disposal/landfillbans.htm

Mandate/Requirement for Hauler: Aspen, CO



Contact: Liz O'Connell, Liz.OConnell@cityofaspen.com

Community Size: 6,658

Summary:

Aspen is serviced by private waste haulers for commercial and residential locations. Single stream recycling is required by the city to be available. The City of Aspen has a PAYT program for commercial customers. Waste haulers are required to include the cost of recycling in the base rate of trash. Businesses must have recycling bins for beverage containers, office paper and cardboard. Yard waste is banned from all trash.

How was the policy developed and implemented? In 2004, Aspen city council asked staff to review options to increase recycling. Staff met with waste haulers, businesses and residents through meetings and phone calls. The result was a citywide recycling ordinance. The original ordinance included a 3-year sunset clause to reflect concerns and in 2008 the ordinance was renewed. The ordinance came into effect when the businesses' current trash contract expired. The staged approach gave the city several years to educate businesses about the requirements. The city originally hired a full-time staff to focus on the commercial implementation of the ordinance and later reduced the position to half time. Staff went door-to-door speaking directly to about 400 businesses, offering assistance and handing out information.

Infrastructure:

The City requires that recycling be brought to “a facility that is recognized by the state as a place that processes recyclables.” The County’s ordinance requires that all haulers bring material, solid waste and recycling, to the Pitkin County Solid Waste Center.

How successful has the policy been?

In the first 3 years, Aspen saw more than 170 businesses start or expand recycling service.

Are there any plans to amend, remove or add to the policy?

A voluntary business compost program has been launched and now there are 3 compost haulers servicing the community.

Outreach messages used to educate?

The city continues to offer businesses education and technical assistance to reduce waste. Ten businesses each year receive a free waste audit, recycling and composting bins and informational materials. Outreach to haulers is constant.

What type of businesses are affected by the policy?

Applies to all businesses, including retail establishments, restaurants, hospitals, schools, day care centers, offices, nursing homes, clubs, churches and public facilities.

Are there any exceptions granted?

Businesses are only exempt from the cardboard requirement if they self-haul.

How is the policy enforced?

The city provides an audit card for haulers to notify businesses where there is contamination in recycling bins or yard debris in trash cans. The city is responsible for educating the customer and correcting the issue.



Commercial Source Separation Ordinance : Mecklenburg County, NC



Contact: Derrick Harris, 704-432-3466

County Size: 1,012,539

Summary:

In 1996, North Carolina House Bill 859 required all units of local government to enact a 10-year solid waste management plan. The goal was to reduce solid waste to the landfill by 40% in 4 years. The County appointed a task force of business leaders to develop a mandatory source separation ordinance for cardboard and paper. Once the ordinance was approved, large businesses were required to separate, at a minimum, office paper and cardboard for recycling. Ordinance applies to only largest businesses in the county, defined as any business that generates 16 cubic yards or more of trash per week. This affects about 5000 businesses.

Who operates collection service?

Businesses have two options for recycling collection: 1. Contract with a private hauler. 2. Self-haul recycling to a County Collection Center.

How is the policy enforced?

The county employs one full-time staff to oversee enforcement. Between 2003 (when enforcement began) and 2012, over 1,000 inspections were conducted and 38 notices of violation were issued. All sites came into compliance as a result of the notices. If businesses do not comply after the third notice of violation, they will be assessed a \$50 per day fine. So far, no fines have been levied. The county offers free technical assistance along with each notice of violation.

**“One of the benefits of the Ordinance has been
in the area of economic development.”**

How successful has the policy been?

One of the benefits of the Ordinance has been in the area of economic development. There are now additional companies servicing businesses in the county, accepting a wider variety of materials. The business community has not objected and has been generally supportive of the Ordinance.

Any general advice for communities?

Overall, the ordinance has been successful in reducing waste to the landfill. Include small to medium size businesses in the policy.

Are there any plans to amend, remove or add to the policy?

Only 23% of small businesses are affected by the mandatory recycling policy and despite county assistance, half of small businesses in the county are not recycling. Paper and cardboard are the largest categories of waste from these businesses. The county is considering revising the ordinance to include more small businesses.

Outreach messages used?

The outreach initiative is to maintain a continuous and effective campaign to increase awareness of commercial recycling. Step by step online guides and on-site technical assistance for businesses is available. Messages: Longer landfill life. Expensive and difficult to obtain landfill permit nearby. Saves natural resources. Reduce trash bill. Marketing advantages.

Mecklenburg County determined that business and industry created 78% of the recyclable material going to the landfill.

Outreach/Rate Structuring/Voluntary Recycling Southwest Solid Waste Authority (SWSWA) Silver City & Grant County, NM



Contact: Terry Timme, terrytimme@gmail.com

County Size: 29,500

Summary:

This is a voluntary participation program combined with a tiered-rate structure that has been extremely successful. SWSWA began collecting cardboard from businesses one day a week in 2007. They used the same side loader truck which collected household recycling four days per week. Cardboard sometimes had to be collected by hand because not all businesses had a container.

Currently, area businesses are given a 3 Cu yd bin for cardboard and/or a blue 26 gallon cart for single stream materials (also used for household recycling). Fees for waste collection are based on both pick up times and size of container. City offers recycling collection for free.

How was the policy developed and implemented?

The Town of Silver City provides solid waste collection for businesses and Southwest Solid Waste Authority provides recycling collection. The Town implemented a tiered-fee structure for solid waste that incentivized recycling. Impetus for the solid waste fee structure came about through an initial meeting with a consulting company to strategize how to update old equipment in the sanitization department. Cost savings and a built-in annual fee increase allowed cost savings to be passed on through the recycling contract with SWSWA. The recycling supervisor for SWSWA, Tommy Ogas, has pushed volumes through door-to-door education.

How successful has the policy been?

Recently SWSWA increased the number of 3 cubic yard containers from 98 to about 120 in response to increased demand from businesses. In addition numerous businesses have received 26 gallon bins in the downtown area that can not be serviced by the side-loader to pick up 3 cubic yard bins. Pick-up days have increased from one to three days per week using a side-loader to pick up the 3 Cu yd bins. In 2013, pick up days increased again to Monday through Friday. The number pick-up days for businesses now exceed the pick-up days for households due to the volume of cardboard.

Are there any plans to make a mandatory recycling ordinance?

The voluntary recycling and tiered rate structure has been so successful that the SWSWA only wants to make recycling even more convenient. They also want to give out more bins.

Outreach messages used to educate?

Door to door, face to face meetings with the Recycling Supervisor regarding how businesses can save money. Recycling outreach campaigns by Silver City's Office of Sustainability were also valuable.

What type of data has been collected?

Commercial route allows SWSWA to closely estimate commercial cardboard tonnages separately from residential volumes. Annual report from 2014 showed 327.64 tons of cardboard collected and sold. SWSWA provides special collection service for two businesses which bale their own cardboard. The Silver City Office of Sustainability reaches out to three stores which backhaul their own cardboard in order to capture a best estimate of the recyclable material produced in the area.

“Impetus for PAYT came about through the question, how can we fund updates to old equipment in the sanitization department?”

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