

Recycling in Multifamily Housing Units:



Toolkit for Apartment Managers and Owners

December 2013



Most of the information in this toolkit is aimed toward multifamily apartment complexes, where curbside collection is not feasible. If you own or manage rental properties with five or more units, you'll find the suggestions in this kit very helpful. They can be implemented on a small or large scale to suit the needs of the units you manage.

The 2010 census data indicated that 21 percent of Lincoln's population – about 54,000 people – live in multifamily dwelling units.

Table of Contents	Page
Multifamily Recycling Background	2
About Us	2
Recycling 101	3
Why Recycle?	3
STEP ONE - Understand the Waste Stream at Your Property	4
STEP TWO - Develop a Convenient Recycling System with the Help of a Recycler	5
STEP THREE - Inform and Engage Your Residents and Staff	6
STEP FOUR - Monitor and Track Your Program	7
Frequently Asked Questions	8
APPENDIX A: Waste Tracking Worksheet	9
APPENDIX B: Understanding Your Waste Stream Capacity and Cost	10
APPENDIX C: Tips for Writing Recycling Articles in your Newsletter	11-12
APPENDIX D: Tips for Storing Recyclables in Your Apartment	13
APPENDIX E: Sample Move in Letter	14
APPENDIX F: Items to Recycle Signs	15

Introduction

Every human strongly identifies with the concept of home. Your work as a housing owner or manager is important to our community. You provide the walls and living environment that create the homes for many people in Lincoln. You have a big influence on your tenants' sense of "home sweet home." Your job is to manage the many tasks that need to be done to ensure the comfort, safety and overall well-being of your tenants. You are in charge of maintaining grounds, updating facilities, making repairs, ensuring sufficient heating and cooling and providing water service.

Waste disposal is also a big item on that list. Trash collection is extremely important for the safety, health and beauty of our community. The goal of this toolkit is to help you make recycling part of your waste management system. You'll learn how recycling can benefit your bottom line, provide a valuable service to your tenants, improve the marketability of your units and benefit the community.

The toolkit will show you how to accomplish the following:

- ◆ Evaluate the current waste stream at your apartment complex.
- ◆ Identify the necessary steps to initiate a recycling program.
- ◆ Establish a system of recycling to ensure long-term participation and success.

Recycling at your apartment complex will set you apart from others in Lincoln. It will demonstrate that you have a focus on sustainability and the future. Your residents will value the ability to conveniently recycle, and you can add it to the list of selling points at your property.

Multifamily Recycling Background

Of all the ways we can reduce our impact on the environment, recycling is the easiest. Yet, residents of multifamily dwellings are far less likely to recycle than those who live in single-family homes. The reason is convenience. While curbside collection works well for single-family and duplex homes, it is difficult to standardize any type of collection procedure for multifamily apartment buildings. Because they vary greatly in size and layout, it's necessary for each apartment complex to have its own system.

The recycling drop-off sites managed by the City are available for use by all residents, but are underused by apartment dwellers. A key reason for this is that apartments have limited space to store recyclables and tenants must make more frequent trips to the drop-off sites.

Apartment owners and managers can increase recycling by their tenants by making it more convenient. One option is to offer onsite recycling, with containers for recyclables next to the waste containers. This guide will help you set up a recycling system for your apartment complex.

About Us

The City of Lincoln Recycling Office is part of the Solid Waste Operations Division of the Public Works and Utilities Department. Our mission is to promote the diversion of waste from the sanitary landfill in an economically and environmentally sound manner in full partnership with the private sector.

Our goals are to:

- ◆ Maintain effective residential recycling, composting, and waste reduction programs.
- ◆ Promote commercial waste reduction and recycling.
- ◆ Maintain an effective public outreach program which promotes waste reduction, recycling, and backyard composting.

This toolkit was developed to assist us in executing our mission and goals and was made possible through grant funds provided by the Nebraska Department of Environmental Quality. If you have any questions about this document or the City's recycling program, please call 402-441-8215 or email recycle@lincoln.ne.gov.

It's estimated that each person in Lincoln creates about 3.7 pound of trash every day.

Much of this material --plastic bottles, metal cans, glass jars, newspapers, junk mail and cardboard – is readily recyclable.



Recycling 101

“Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products.”

Source: EPA.gov

After being collected, recyclables are transported to a material recovery facility where they are sorted, baled and shipped to manufacturers for manufacturing new products. Some examples include shredded paper, chipped plastic, and glass granules which are bought and sold in regional, national and international markets. Purchasing goods made from recycled materials is the final stage of recycling.



This 100% fleece sweatshirt is made from 63 20-ounce #1 PET plastic bottles.



Why Recycle?

Consider these two scenarios:

1. A waste hauler collects the garbage from the containers at your property and drives it to the landfill, where it is weighed and buried in the ground, where it will remain for many years. The hauler pays a fee based on the weight of the material and then charges you based on the number of containers they emptied, the amount of material collected, and the number of services trips they made.
2. A waste hauler collects your recyclables and your garbage. The garbage goes to the landfill, but it's a smaller amount, reducing disposal costs. The recyclables go to a material recovery facility, where they become a resource with monetary value. The recyclables are cleaned, processed and made into new products. New jobs are created to collect, process and transform the material into new products, which are sold in the market place, creating additional revenue. The energy required to make a product from recycled materials is less than the energy required to create the same product from raw materials. Fewer pollutants are emitted into the air and water, and less energy is consumed.

The space saved in the landfill saves taxpayer dollars by delaying the development of a new landfill. The waste hauler will charge you for the number of garbage containers they emptied, but you will use fewer or smaller containers. These savings help offset a portion of the cost to provide and service additional recycling containers.

Under both scenarios, residents have disposed the same amounts and types of material. But under the second scenario, you have saved taxpayer dollars, helped to create jobs and demonstrated your environmental stewardship.

How is the cost of waste services determined?

The cost to collect solid waste is typically determined by the amount of waste, the number of containers and the frequency of service. Also included in the price is the cost haulers pay to dispose of the material, including a landfill tipping fee (\$16 per ton) and occupation tax (\$9 per ton). Collectively, these fees -- called a system rate -- are \$25 per ton for the Bluff Road Landfill. The money saved by reducing the number or size of containers, the frequency of collection and the disposal costs can help offset the cost of providing and servicing recycling containers.

STEP ONE --

Understand the Waste Stream at Your Property

Begin by collecting the following information:

- ◆ The number of containers on your property
- ◆ The size of the containers
- ◆ The number of times per week the containers are serviced
- ◆ The cost to collect the containers per service trip
- ◆ The fullness of the containers at the time of collection

A past invoice from your waste hauler may provide some of this information. You also can walk around your property to determine the quantity, location and capacity of the containers on your site. Sketching a quick map may help you keep records.

To determine how full the containers are when they are emptied, have an employee check them the morning of collection or the night before. Use the worksheet in Appendix A to keep track over time whether each container is one quarter, one half, three quarters or completely full.

This worksheet can help you determine if your current level of waste service is meeting your needs. It is important that you have sufficient container capacity to properly store waste during “peak” disposal periods. This may be in the spring and fall of the year if you have college students living in your units. You may be paying for more service than you need or you may need more containers.

After you collect data for a period of time, determine an average fullness for all of your containers. Use the worksheet in Appendix B called “Understanding your Waste Stream: Capacity and Cost.” Compare your total waste capacity to your actual waste generated. Now that you better understand the waste stream, call your current waste hauler or a recycling company to compare the cost of a trash-only pickup to a combined trash and recycling pickup.

By choosing to have onsite recycling you can reduce the amount of material landfilled, the frequency of garbage collection and the number or size of the containers you need.

Take note of furniture that could be reused and donated to a charity instead of tossed or cardboard boxes that could be broken down to save space. Use bulletin boards in common areas to post furniture exchanges or giveaways and to make residents aware of how they can help reduce waste.



photo courtesy of Lincoln Journal/Star

STEP TWO --

Develop a Convenient Recycling System with the Help of a Recycler

A recycling system that works for your apartment complex depends on the layout of the buildings and lots. It should be just as easy for residents to recycle as it is for them to throw items away. That means placing recycling containers at or near all locations where garbage is currently collected.

You may choose to provide containers for single-stream (unsorted) recyclables. Note that glass is often collected separately because breakage makes the other recyclables less valuable. Another option is to have several containers marked for different recyclables. One apartment building in Lincoln uses a trash chute room on each floor to collect waste and recyclables separately.

Best Practices:

- ◆ Clearly mark recycling and waste containers by using different colors or signage.
- ◆ Collect recyclables at other commonly visited locations, including common areas, playgrounds, laundry rooms, mail depots and management offices.
- ◆ Ensure that containers are visible and accessible to both residents and haulers.
- ◆ Use gates, walls and plants to provide screening and discourage nonresident usage of the containers. The City's guidelines on landscaping and screening can be viewed at lincoln.ne.gov (Click on "Government" then "Departments" go to City's Attorney's site, then Design Standards and click on section 3.5). These guidelines are required only for new buildings, but can be used as a resource.

Avoid these areas:

- ◆ Locations that pose problems for haulers, such as those with gravel or curbs and those with steep slopes or steps between the recycling area and the vehicle collection spot
- ◆ Parking spots
- ◆ Near windows or doors where residents may object
- ◆ Near plants or vegetation that cause interference
- ◆ Close to pedestrian walkways or busy streets
- ◆ Isolated areas and those with poor lighting
- ◆ Locations that are accessible or visible to nonresidents.

A study conducted by the City of Lincoln Recycling Office in 2012 indicated that even people who don't think recycling is important will participate if it is convenient for them.

Apartment recycling programs do have their challenges:

- ◆ Contamination. This occurs when non-recyclable material or excessive food residue is mixed in with recycling or when items are placed in the wrong containers. Recycling processors reject recycling if the contamination interferes with their ability to make it into a new product. Recyclers may have to dispose contaminated recyclables in a landfill, and there may be additional fees to offset the cost. Contamination can be avoided with education and outreach to residents.
- ◆ Bulky items. When tenants move out, they sometimes discard usable items and furniture. Waste haulers may charge additional fees to remove these big items. Some complexes have relationships with thrift store to pick up these items. You may need to find an area to temporarily store the items until they can be picked up.
- ◆ Limited space. Residents can use reusable cloth or plastic bags to store recyclables under the sink, on the floor of a closet or on a door knob. The bags also can be used to transport recyclables to the recycling containers.

STEP THREE

Inform and Engage Your Residents and Staff

Let tenants and employees know your recycling plans even before the containers arrive. An ongoing outreach strategy also is important. Here are some ideas:

- ◆ Plan a potluck, picnic or open house to create awareness about recycling at your complex.
- ◆ Publish an article about recycling in your newsletter. See examples in Appendix C.
- ◆ Distribute flyers to each apartment with information on the location of recycling containers and tips to recycle.
- ◆ Use e-mail, a website and social media to provide information, updates and photos.
- ◆ Include information on recycling in the move-in letter to new tenants. You'll find a sample letter in Appendix E.



The sample flyer in Appendix D will show your residents how they can use cloth bags to store and transport their recyclables from their apartments to the recycling site.

Informational signs and posters should be kept current and posted in common areas such as laundry rooms, mail depots, workout centers and the manager's office. Here are some tips for effective signs:

- ◆ Make them easy to read with simple graphics and colors.
- ◆ If you have residents whose primary language is not English, translate your educational materials.
- ◆ Choose durable sign materials that will be protected from wind, rain, snow and sun. Replace damaged signs promptly.
- ◆ Signs should include clear information on what can and cannot be recycled. Styrofoam, plastic bags, paper plates and drinking glasses are commonly mistaken as recyclables.
- ◆ Signs should also include instructions on sorting, rinsing, crushing and the removal of caps and labels.
- ◆ Photos and illustrations can help explain what goes in recycling containers.

Your recycling hauler will help you identify the materials to be recycled and how they should be prepared. The hauler may have signs available showing the materials they collect. You'll find printable examples of signs in Appendix F.

The success of your recycling program will rely on participation from your residents. The outreach tools described above should be used as part of a long-term program for your existing and new residents. Here are some creative ways to promote recycling participation:

- ◆ Recruit a "green team" of apartment volunteers to provide internal maintenance and support for the program. The team could help to keep the collection site clean, to make sure materials are sorted properly, to help elderly or disabled residents recycle and to offer suggestions for improvement.
- ◆ Have a contest among residents or buildings to see who can recycle the most or throw out the least.
- ◆ Provide incentives like a rent discount for those who write recycling articles for the newsletter.



STEP FOUR --

Monitor and Track Your Program

You've done your research, talked to your waste hauler, arranged for recycling service and informed your residents. Now it's important to monitor and track your recycling system:

- ◆ Report your results to residents through posters or newsletters. Your waste/recycling hauler(s) can provide you with information on the amount of material recycled and the amount going to the landfill. If you recycle 50 pounds and send 150 pounds to the landfill, your recycling rate is 25 percent (50 recycled pounds divided by 200 total pounds).
- ◆ Maintain recycling sites to check for litter and contamination, and check the condition of signs.
- ◆ Continue outreach and education to tenants and staff.

The most convenient location for recycling containers is next to trash receptacles. Make sure signs are easy to read and in good condition. Appendix F contains examples of signs to use.



photo courtesy of Lincoln Journal/Star

Checklist for a Successful Multifamily Recycling Program

- ◆ Is recycling as convenient as trash disposal?
- ◆ Is signage visible and understandable?
- ◆ Do residents have enough information about the recycling system?
- ◆ Does the recycling program have management and staff support?
- ◆ Are maintenance staff and leasing agents trained to answer questions and promote recycling?
- ◆ Is the program adequately monitored for cleanliness and to prevent contamination, overflow and trash?
- ◆ Are accurate records kept to determine true cost or savings?

FAQs

*Recycling Resources

Alley Cat
Disposal Service
402-466-5019

Firststar Fiber
402-464-0003

Journal Star Recycling
402-473-2695

Midland Recycling
402-475-8602

Midwest Refuse/Waste
Connections
402-475-0244

Palmer & Sons
402-474-6814

Recycling Enterprises
402-421-6655

RecycleLink
402-466-0412

Star City Recycling
402-890-4320

*Check with your waste
hauler to see if they
offer recycling

City of Lincoln
Recycling Hotline
402-441-8215

Lincoln-Lancaster County
Health Department
402-441-8021

Q: What City ordinances do I need to follow?

A: There are no additional site requirements for adding recycling bins to your current waste collection system. However, adequate use of screening materials as described in Step Two will promote the safety, usefulness and aesthetic qualities of your property.

Q: Why should I offer recycling?

A: By reducing the amount of trash collection, you may be able to save money on your waste hauling bill, which could help off-set the cost of recycling. You can market your convenient recycling as a valuable amenity, and set yourself apart from the competition by demonstrating your leadership as a rental company that cares about the environment and the community.

Q: What problems might we face?

A: Contamination can be a challenge in recycling systems. This occurs when non-recyclable materials or containers with food residue are placed in the container and when materials are placed in the wrong recycling container. Contamination degrades the value of the materials for future use in manufacturing. If it is a consistent problem, your recycler may add fees. Contamination can be avoided by providing your residents with clear and consistent information as described in Step Three.

Q: Will this create extra work for me?

A: Most of the effort will come in the planning and implementation stages described in Steps One and Two. Implementing a recycling system may mean less work in the long-term, although it is important to continue education and outreach strategies and to monitor and track your program.

Q: How can I make sure my recycling program is successful?

A: Educate and engage your residents and staff. It's important to set a positive example by using the recycling system yourself. Take time to show residents how to recycle and introduce new residents to the recycling program.

Q: How should residents dispose of items such as electronics and household chemicals?

A: Some chemicals used in the home are toxic and should not be disposed with regular garbage. These include herbicides and pesticides, flea and tick products, gasoline, paint thinners and fluorescent tubes. Items like this should be taken to a household hazardous waste collection, hosted by the Lincoln-Lancaster County Health Department. For more information, visit lincoln.ne.gov (keyword: household).

Q: What options are available for recycling if it is not provided onsite?

A: You can encourage residents of multi-family units to use the recycling drop-off sites located throughout the City. You'll find the recycling sites closest to your apartment building at recycle.lincoln.ne.gov. You can also create your own recycling system to collect accepted materials and transport it yourself instead of contracting with a hauler.

Appendix A

Waste Containers at: _____

Week of: _____

Container	Container Size (2 yd., 4 yd., 65 gal. etc.)	Monday Date				Tuesday Date				Wednesday Date				Thursday Date				Friday Date				Saturday Date				Sunday Date							
		1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full				
Example																																	
1	2 yards		X												X																		
2	4 yards		X													X																	
3	2 yards			X												X																	
4	2 yards				X										X																		
1																																	
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	
13																																	
14																																	
15																																	

Appendix B

Understanding Your Waste Stream: Capacity and Cost

A	Size of Container Waste containers are typically sized in cubic yards (cu. yd.) and rolling carts are sized in gallons (gal.).	_____
B	Number of Containers How many of this size of container do you have? (Complete a separate version of this form for each size container).	_____
C	Collection Frequency Which Days of the week are the containers serviced? Mon. Tues. Wed. Thur. Fri. Sat. Sun.	Number of days per week _____
D	Total Waste Capacity If the containers are 100% full at pick up, then this is also your actual waste generated.	Line A = _____ x Line B = _____ x Line C = _____ x equals Line D = _____
E	Total Cost for this Size Container Check your waste contract to determine the total cost per week or per month for this type of container.	\$ _____
F	Cost per Container	Line B = _____ x Line C = _____ divided by Line E _____ equals Line F _____
G	Average Fullness of Container Visually estimate the fullness percentage of each container before it is picked up and figure out the average fullness. (See worksheet in Appendix: A)	_____ %
H	Actual Waste Generated	Line D = _____ x Line G = _____ equals Total Waste (yds. or gals.) _____

Tips for Writing Recycling Articles in your Newsletter

1. Consider the major demographic groups of your apartment building -- college students, young professionals, families, the elderly, etc. Consider having the article translated into the languages spoken by your tenants.
2. Keep it relevant, timely, short and positive.
3. Find interesting ways to get them to think about the waste they create.
4. Use the article to address challenges such as lack of participation or contamination.
5. Remind tenants often of the location of the container(s) and the items that can be recycled.
6. Find interesting facts to include by calling the Recycling Office at 402-441-8215.
7. Design your newsletters to be simple, but visually appealing. Word processors such as MS Office and MS Publisher have templates you can use.

Sample Articles or Newsletters

Winter: Holidays, New Years

Dear Residents,

The holidays are almost here! This time of year is filled with gift giving and gatherings with friends and loved ones. The management at _____ wants you to be aware of the waste you can create this season. According to the Center for a New American Dream, U.S. residents produce five million extra tons of trash between Thanksgiving and New Year's Day.

Please do your part by recycling these materials. Use the recycling container(s) at _____ for clean food and beverage containers, gift boxes and wrapping paper. Remember to break down cardboard boxes to save room in the container.

Have a happy and green holiday season!

Dear Residents,

What is your New Year's resolution? Consider a pledge to live a greener lifestyle by recycling! You'll help save space in the landfill, reduce pollution and conserve valuable resources.

The recycling container(s) at _____ accept (list materials). Thank you for doing your part to make our community cleaner and greener, and have a Happy New Year!

Spring: spring cleaning, Earth Day

Dear Residents,

As the weather warms up, you might be getting the itch to do some spring cleaning. Remember, many items you no longer need can be recycled or used by someone else.

The U.S. EPA reported that furniture accounted for 8.8 million tons, or 3.6 percent of our trash stream in 2005. That's quadruple the tonnage in 1960 (Earth911.com). Thrift stores will accept furniture, housewares, books, toys, small appliances and other items you no longer need. And please remember that you can recycle (list of material) by depositing them in the container/s provided on site at _____.

Remember to be green this spring!

Fall: back to school, football season, Halloween, Thanksgiving

Dear Residents,

It's time to get out the backpacks, lunchboxes, notebooks and the Husker gear! During the hustle and bustle of fall, don't forget to recycle. A 2008 study found that paper fibers accounted for 44 percent of the total municipal solid waste disposed in the Bluff Road Landfill. That's a lot of school notes! Recycling one ton of paper saves enough energy to power the average American home for six months. It also saves about 7,000 gallons of water and 17 trees (EPA.gov).

Game day gatherings can generate a lot of recyclables. The Aluminum Association say Americans recycled 65 percent of the aluminum cans used in 2011 – that's 61 billion cans!

Paper and aluminum are just two of the items you can recycle on site at _____.

Thanks for doing your part!

Summer: barbecues, outside activities, sporting events, vacations

Dear Residents,

We hope you are enjoying a summer filled with barbecues, outdoor activities and lots of nice cold beverages. After you enjoy that refreshing drink, do the right thing and recycle the container. Put it out for recycling.

In 2011, Lancaster County residents recycled over 100 tons of # 1 plastic soda and water bottles at the drop-off sites – enough to make about 50,000 square feet of carpet or 75,000 sweaters (City of Lincoln Recycling Office). Do your part and recycle plastic and other materials onsite by taking them to the containers at _____.

Have a safe, happy and green summer!

Tips for Storing Recyclables in your Apartment

These tips will help your residents start a convenient recycling system.

1. At _____ Apartments, you are able to recycle the following items: LIST
2. To store and transport recyclables, choose small containers such as reusable bags, baskets or cardboard boxes.
3. Choose a location in your apartment to deposit and store recyclables. The kitchen is one of the best places because it is the source of most household waste. Consider storing tools, appliances and other items you use infrequently in other parts of your apartment to make space. After rinsing metal and plastic containers, you could place them in bags under the sink. Use door knobs or hooks to hang cloth bags with lighter recyclables. Bags may fit under tables, racks or utility stands. You might find room on a shelf or the floor of a laundry room, pantry or closet. Place small containers in the bathroom sink cabinet, one for garbage and another for recyclable boxes and bottles. In an office area, place a recycling container for paper and newspaper next to the desk.
4. Make preparing recyclables part of your household routine. For cans and bottles, remove lids and rinse or wash. (Labels do not need to be removed.) Flatten cans and plastic bottles to save space. Anything that comes with the newspaper can be recycled with the newspaper except the plastic bag. Remove packing material from cardboard boxes and paperboard packaging and flatten. Magazines and stapled items can be recycled with office paper.
5. When the containers are full, take them out with your garbage and place the recyclables in the labeled container(s) at _____. After emptying your containers, you will want to regularly clean them with hot water and sanitizing solution.
6. Stay connected. Follow local news media for community recycling events such as paper shredding and paint exchanges and special collections for electronics and household hazardous waste. Share what you've learned with friends, family and neighbors.

Appendix E

Sample Move-In Letter

Dear Resident,

As a new member of our community at [name of apartment complex], we encourage you to recycle. We've made it very convenient for you! See the attached information for all the details. (Attach Appendix D.)

Recycling diverts waste from the landfill and conserves valuable resources. It is more economical to recycle waste into new materials than to create new products from raw materials. Recycling also reduces the cost of garbage disposal. Help us keep costs down and make our community cleaner and greener!

Reusing items is also a great way to reduce waste. Ask if a friend or neighbor can use your moving boxes or break them down, store them flat, and save them for your next move. Donate items you no longer need to a charity and consider purchasing a used alternative yourself.

More information about recycling in Lincoln is available by visiting recycle.lincoln.ne.gov or calling the Recycling Hotline at 402-441-8215.

If you have any questions about recycling at [Apt name], please contact [Manager/Recycling coordinator] at [your e-mail, phone number] or visit our website at [your website].

We're glad you're here, and thank you for recycling!

Sincerely,
[Your name]

Use this sample letter to welcome your residents, and inform them about recycling.

Appendix F

Items to Recycle Signs

Print these signs to use in your apartment complex. They are available at recycle.lincoln.ne.gov

RECYCLE Cardboard



RECYCLE Glass



RECYCLE Glass, Paper, Metal & Plastic



RECYCLE Paper & Cardboard



RECYCLE Plastic



RECYCLE Paper



RECYCLE Metal

