



## **RECYCLING PUBLIC ADVISORY COUNCIL**

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**Coralie Pryde**, League of Women Voters.

### **To the Honorable Governor Jack Markell and Members of the 146<sup>th</sup> General Assembly:**

Subject: Implementing Universal Recycling in Delaware's Commercial Sector

Per the "Universal Recycling Law" 7 Del. C. § 6053(d) requires that "*Universal Recycling be adopted by the commercial sector and that all commercial businesses actively participate in a comprehensive recycling program no later than January 1, 2014.*"

It further requires that the Recycling Public Advisory Council issue a report to the Governor and the General Assembly no later than November 1, 2012 with recommendations regarding the implementation of Universal Recycling in the commercial sector.

The report was developed from several meetings held over the last 9 months with input from a number of stakeholders including the Chamber of Commerce, the Recycling and Waste Collection Industries, the League of Local Governments, DNREC and additional stakeholders.

Highlights from this report include:

- Definitions of several elements of Commercial Recycling.
- Recent developments which affect and support recycling activities in Delaware.
- The challenge of addressing the diverse commercial sector.
- A pragmatic prescriptive approach with guidelines based on specific commercial sector best practices that allows significant latitude and flexibility for individual businesses.
- Examples of successful Commercial Recycling operations in Delaware.
- A grace period for compliance until 2015 followed by an assessment as to whether any enforcement activity is necessary to ensure broad compliance.
- Extensive outreach and education efforts including free waste audits, sector specific recycling 'toolkits', a business certification program, workshops, etc.

If you have any questions or would like to learn more about commercial recycling please feel free to contact me, any member of the Council, or consult our website at

<http://www.dnrec.delaware.gov/whs/awm/info/pages/rpac.aspx>.

Best Regards,

A handwritten signature in blue ink, reading "Brock J. Vinton II", is displayed on a light pink rectangular background.

Brock J. Vinton II  
Chair, Recycling Public Advisory Council

# **Recommendations for Implementing Universal Recycling in Delaware's Commercial Sector**

## **I. Background**

It is well established that recycling conserves valuable natural resources, landfill capacity, and energy; creates jobs and reduces pollution. For these reasons, on June 8, 2010 Governor Jack Markell signed SB 234, otherwise known as Universal Recycling, into law. The goal of universal recycling is to create an economy of scale wherein a dramatic increase in Delaware's diversion of recyclables occurs in the most cost effective manner achievable while simultaneously creating job opportunities and significantly reducing Delaware's rate of waste disposal. This goal applies to both residential and commercial recycling. Regarding the implementation of commercial recycling, 7 Del. C. § 6053(d) requires:

- the Recycling Public Advisory Council issue a report to the Governor and the General Assembly no later than November 1, 2012 with recommendations regarding the implementation of Universal Recycling in the commercial sector and,
- Universal Recycling be adopted by the commercial sector and that all commercial businesses actively participate in a comprehensive recycling program no later than January 1, 2014.

Commercial waste makes up nearly half of the municipal solid waste generated in Delaware. While some of the commercial sector has embraced recycling, Delaware's commercial diversion rate has ranged from a moderate 23 to 27 percent over the last several years – basically remaining flat at an average of about 26 percent since recycling measurement started in 2006. The 2015 goal is 50 percent diversion. Clearly these modest and nearly stagnant commercial recycling rates indicate that recycling opportunities abound in the commercial sector. If Delaware is going to be successful at diverting a large percentage of this waste stream from disposal and achieve the recycling goals established by the universal recycling law, it will be necessary to take advantage of these commercial recycling opportunities.

## **II. Definitions**

'Commercial Sector' means any for profit or not-for profit retail or wholesale stores, offices, food service establishments, warehouses, and other manufacturing, industrial or processing activities, and institutions such as social, charitable, educational, health care, professional and government services.

'Recyclable Material' means any material or group of materials that can be collected and sold or used for recycling.

'Single Stream' means a system in which all fibers (including but not limited to paper, cardboard, etc.) and containers (including but not limited to plastic, glass, and metal) are

commingled for collection into one container instead of being sorted into separate commodities and multiple containers.

‘Source separated’ means recyclable materials, including single stream materials, that are segregated at the point of generation and kept apart from the waste stream by the generator thereof for the purpose of collection and recycling.

### **III. Factors and methods associated with commercial recycling.**

In addition to a legislated requirement, the overriding factors that affect whether or not a commercial recycling program will be implemented are economics, corporate policy, and environmental ethic. Some businesses recycle because it makes economic sense; some because it is corporate policy to be “green” and some simply because they believe it is the right thing to do. Financial incentives may include payment for specific types of materials and/or a reduction in combined recycling and trash services.

The method of recycling that works best in any given situation is a function of a variety of factors. Recycling in the commercial sector may include separating and marketing recyclables by type, segregated cardboard or office paper are common examples, and as a result the materials have a higher value than if they were commingled in a single stream. Recycling can also employ the single stream method wherein all the recyclables are commingled together just as is the case with residential recycling. While single stream recycling may have a lower commodity value, it represents the most convenient form of recycling. Because it is so convenient, more people are willing to participate in this type of a recycling program. As a result, recycling rates are higher. Single stream recycling also reduces collection costs because all of the recyclables can be transported together at the same time. The decision to segregate a single recyclable like cardboard or commingle recyclables into a single stream is driven by a number of factors including the volume of the materials being recycled and their associated value, the convenience and the cost of collection, and the ability to store materials.

### **IV. Changes in Delaware’s waste management infrastructure that promote recycling.**

Significant changes have occurred over the last several years that make the implementation of recycling programs in Delaware much easier and much more cost effective than ever before. Specifically, those changes include:

- Increasing landfill tipping fees – Landfill tipping fees have increased from \$61.50 per ton in 2009 to \$84.00 per ton in 2012 and moderate increases will likely continue. These increases are substantial and the higher the disposal rate the more cost effective recycling becomes. As a result, recycling is much more attractive economically than it has been historically.
- Competition for waste and recycling services – With the implementation of universal recycling there has been robust competition for combined trash and recycling services in the residential sector. As a result, the combined pricing for trash and recycling services is now often less than what it was for trash service alone before the implementation of universal recycling. There’s every reason to believe that the same competitive

environment will exist with the implementation of commercial recycling in the commercial sector.

- Construction of Recycling Facilities –Largely as a result of universal recycling, several recyclables processing companies have come into existence as a result of the business opportunities created by this legislation. Specifically those companies are Wilmington Organics Recycling Center and Blue Hen Organics, both of which offer composting services, Blue River and Re-Community Material Recovery Facilities, which offer traditional recyclables processing and marketing services, and Revolution Recovery, which offers C&D waste recycling services. The existence of these businesses unquestionably creates the opportunity to implement recycling programs that otherwise would not exist.
- Overall favorable recycling markets – Recyclables are both a national and global commodity and just like any other commodity they fluctuate in price depending on market conditions. Prior to the recent recession recyclables markets were very strong and coming out the recent recession they have also been strong. More recently production of goods made from recyclables – paper, cardboard, etc. – has slowed and therefore recyclables values have also dropped somewhat in response to this decrease in demand. Such is the cyclical nature of commodity pricing; however, what is most important to understand is that overall pricing has been sufficiently strong to support continued diversion of these materials and the technology to separate and market these materials continues to improve. If that were not the case, the depth and breadth of recycling programs throughout the country, and for that matter throughout the world, would not exist.

As a result of these changes local jobs and products have been created that otherwise wouldn't be available and some commercial businesses have already started implementing successful recycling programs.

## **V. Success Stories**

Below are just a few examples of Delaware businesses and institutions that have been able to take advantage of the recycling opportunities that are now available in Delaware. These successes clearly demonstrate that commercial and institutional recycling can be successfully implemented throughout Delaware:

- Bethany Blues Restaurant - Before implementing a comprehensive cardboard, bottle and food waste recycling program in their Lewes restaurant, Bethany Blues required trash pickup three times per week. Now with all of their cardboard and bottles being diverted from the trash to a recycling container and food waste being diverted to a composting facility, their food waste is picked up three times per week but trash is only picked up once every other week. As a result of this significant reduction in the waste that is generated, and because recycling and composting fees are much less than disposal fees, during peak season the restaurant is now saving about \$1,000 per month on combined recycling and trash disposal services.
- Wawa Convenience Store– According to Wawa's Waste, Recycling and Sustainability Manager, Fred Wood, the reason Wawa has implemented single stream recycling in some

of its stores and will be expanding it to other stores is quite simply this: “Single stream recycling is more cost effective than trash disposal.”

- Standard Distributing – commercial recycling by a local beer distributor– Although this company was already recycling glass bottles, aluminum cans and wooden pallets, it suspected an even larger percentage of its waste stream was recyclable. After consulting with a local recycling service provider their suspicions were confirmed and now they also recycle cardboard, plastic wrap and office paper. Whereas prior to recycling these new items they needed trash collection service twice/week, they now receive trash collection service once per month. As a result of these changes in 2011 their trash disposal costs have been reduced from \$13,000 per year to \$7,000 per year and they received \$8,500 for the value of their recyclable materials. Not only have they completely wiped out their disposal bill, they’ve profited \$1,500 per year by implementing recycling. In addition to this excellent financial incentive they also diverted nearly 100 tons of glass, aluminum, wooden pallets, cardboard, paper, and plastic from disposal.
- Christiana Care Health System – Christiana Care, of its own volition, makes environmental stewardship a priority. In doing so, there has been a deliberate effort to reduce the amount of waste generated as well as to increase recycling. As a result of these activities, this organization has been successful in substantially increasing its recycling rate over the last four years and continues to look for ways to expand its recycling and waste diversion efforts. Currently, Christiana Care is saving over \$60,000 per year by reducing its solid waste disposal costs through these activities.
- DNREC Office Building - Dover - By switching from custodial services for trash removal in individual offices to centralized trash and single-stream recycling locations throughout the Richards & Robbins Building, DNREC was able to reduce its custodial service and trash removal costs that resulted in a combined savings of approximately \$4,000 per year, which is roughly equivalent to \$13/person/year. This program has also encouraged employees to be more conscious of the waste they generate and what can be recycled.

## **VI. Enforcement**

Seven Del. C. § 6059 affords DNREC enforcement authority for failure to comply with the requirements of universal recycling. However, it is recommended that enforcement of this new recycling requirement be delayed during the first year of the program to give the commercial and institutional sectors time to acclimate to these new requirements. Depending on the amount of increased diversion measured in the commercial sector in 2015, based on calendar year 2014 reporting requirements, the need to enforce implementation of this recycling requirement will be evaluated by DNREC in consultation with RPAC. Little or no increase in commercial recycling and/or a commercial recycling rate that falls well short of the established goals, should result in DNREC pursuing regulations that require defined elements of commercial recycling are implemented as soon as practical for all stakeholders.

## **VII. Implementation Plan/Outreach and Education**

There will be a substantial need for outreach, education, and guidance on how to implement commercial recycling. Beginning no later than January 2013 DNREC, with advice and guidance from the RPAC, will conduct the following activities:

- Notify the commercial entities of the January 1, 2014 requirement to “participate in a comprehensive recycling program.”
- Provide Commercial Recycling “Frequently Asked Questions” information that addresses generic questions that can be expected with respect to the implementation of commercial recycling. These are attached as Appendix A.
- Provide outreach and education to the commercial sector upon request by attending meetings, workshops, conferences, etc. to discuss commercial recycling implementation.
- Provide Toolkits designed to educate specific sectors on the implementation of recycling within their industry. Currently specific toolkits for the following categories will be available and more will likely be added: Convenience stores, health care, malls, public spaces, special events, supermarkets, conference centers, hotels, office buildings and restaurants. All toolkits will have a common theme and at a minimum address:
  - Why reducing waste and implementing recycling makes sense,
  - Establishing a team to implement a recycling program,
  - Assessing your waste stream and identifying recyclables,
  - Selecting a recycling service provider,
  - Managing a recycling program and,
  - Outreach, education and sustainability.
- The “boiler plate” toolkit is attached as Appendix B and the specific toolkits will be available at <http://www.dnrec.delaware.gov/whs/awm/Recycling/Pages/Recycling.aspx>
- Promote the commercial recycling round of the Recycling Grant and Low Interest Loan program.
- If resources allow, offer recycling program certifications and awards and provide free waste audits to help business target their recyclable materials.

Notification of these activities will be through the respective, city, county, and state Chambers of Commerce, various associations that represent specific sectors, press releases, media coverage, holding commercial and institutional recycling workshops throughout the state, placing information on the web @ [www.recycling.delaware.gov](http://www.recycling.delaware.gov) and [www.dnrec.delaware.gov](http://www.dnrec.delaware.gov), and the use of billboards.

**Appendix A**  
**Commercial Recycling**  
**Frequently Asked Questions (FAQ)**

**Q: Can recycling really save money?**

**A:** Yes; however, it is important to understand circumstances vary considerably. While many businesses have implemented recycling programs and saved money, it is not a given. Savings can be achieved by reducing trash disposal costs, generating revenue from the recycled materials, or a combination of both. The only way to know for sure if you can save money by recycling is to completely understand your waste stream and evaluate all of the available options to reduce, reuse, and recycle the waste that is generated.

**Q: How much does recycling cost?**

**A:** Recycling costs vary depending on a variety of factors: the type, volume, and value of the recyclables, as well as the frequency of collection all significantly impact recycling costs/savings. With the implementation of recycling make sure you request a billing structure that will reduce your disposal costs.

**Q: How do I implement and sustain a recycling program?**

**A:** The DNREC offers a variety of toolkits to assist with recycling program implementation. Toolkits are located at <http://www.dnrec.delaware.gov/whs/awm/Recycling/Pages/Recycling.aspx> DNREC may also be able to provide financial and technical assistance with recycling program implementation. For possible financial assistance visit the Universal Recycling Grant and Low Interest Loan Program at <http://www.dnrec.delaware.gov/whs/awm/Pages/RecyclingGrants.aspx> . For technical assistance please contact the Solid and Hazardous Waste Management Section at 302-739-9403.

**Q: How do I know what recyclables are in my waste stream?**

**A:** The best way for a commercial business to understand its waste stream is to conduct a waste audit. A waste audit is the process used to quantify the types of wastes and recyclables being generated. Your waste is literally inspected, identified, and weighed to determine the types of materials discarded. An audit will help you identify recycling and waste prevention opportunities, potential savings from reduced disposal costs, potential revenue from the sale of recyclables, and help you establish baseline data for measuring the future effectiveness of the program. To conduct a waste audit:

- Utilize knowledgeable staff, or contact your waste hauler, recycling service provider, or waste/recycling consultant to perform the audit. Note that the Department may also be able to assist with a waste audit. For more information [call](tel:302-739-9403) 302-739-9403.
- Characterize all wastes and recyclables that are discarded by weight and type.
- Identify the waste prevention and recycling opportunities as well as any potential revenues from the sale of the recyclables and potential savings from reduced disposal fees.
- Determine if recycling collection service is needed for special material streams.

**Q: What are some other waste prevention and reduction tips for my business?**

**A:** The first and most effective component of the waste hierarchy is reducing the waste created. Generators of waste are encouraged to reduce their waste by purchasing in bulk, buying items with less packaging and switching to reusable instead of single-use items. Businesses can adopt manufacturing methods that require fewer resources and generate less waste. In addition to benefiting the environment, these efforts often offer the financial incentive of lower expenses in purchases. For more information on waste prevention and reduction visit: <http://www.epa.gov/smm/wastewise/wrr/prevent.htm> and <http://www.epa.gov/osw/consERVE/rrr/reduce.htm>.

**Q: What happens if I don't recycle?**

**A:** In addition to losing out on a host of environmental and economic benefits, 7 *Del. C.* § 6059 affords DNREC enforcement authority for failure to comply with the requirements of universal recycling. Penalties range from \$100 to \$1,500 per day for failure to comply.

**Q: What if my hauler mixes the trash and recyclables together?**

**A:** Persons engaging in the collection, transportation, processing or marketing of recyclable materials shall conduct such activities in a manner that the recyclable materials enter the marketplace and are otherwise not disposed via a landfill or by incineration. If your hauler/recycling service provider is mixing trash and recyclables together please contact DNREC at 302-739-9403 immediately to report this activity.

**Q: What must be recycled?**

**A:** The type of materials that must be recycled is not specified; however, you must have a comprehensive recycling program. Materials commonly recycled in the commercial sector include, but are not limited to, corrugated cardboard, scrap metals, scrap lumber, office paper, aluminum, and rigid plastics. As indicated in the "How do I know what recyclables are in my waste stream?" Q&A above, in order to determine the best materials for your business to recycle, you need to understand the waste you generate. The best way to understand the waste you generate, and therefore what can be recycled, is to conduct a waste audit.

**Q: What will happen to the DSWA Drop-Off Centers?**

**A:** DSWA has no immediate plans to remove the Drop-Off Centers. After a suitable period of time, DSWA will evaluate the productivity of Drop-Off Centers and may remove unproductive sites. DSWA will continue to provide drop off locations for items that cannot go in the single stream containers like textiles, oil filters, used motor oil, batteries, and electronic goods.

**Q: Who is required to recycle?**

**A:** Seven *Del. C.* § 6053 (4) of the universal recycling legislation requires that all commercial businesses actively participate in a comprehensive recycling program no later than January 1, 2014.

**Q: Who should I contact to collect my recyclables?**

**A:** A recycling service provider can be one or more vendors that will pick up your recyclables for processing. While many waste haulers offer recycling services, some companies specialize in providing strictly recycling services. Services might include baling, shredding, crushing, or compacting as well as transporting and marketing the recyclable materials. Discuss collection

schedules and options with a variety of service providers and request a billing structure that will reduce your waste disposal costs. Monitor how full collection dumpsters are and make arrangements to adjust the collection schedule based on volume. Also note that scrap yard dealers may pick up scrap metal and other materials at no charge or even pay you for sufficient quantities of metal you may generate. Reuse organizations will often pick up donated items such as used appliances, building materials, fixtures, and furniture from remodeling projects. Finally, if you choose not to use a collection service you can self-haul your recyclables directly to a recycling processor.

**Q: Why is universal recycling in the best interest of Delawareans?**

**A:** Landfills in all three counties have had to undergo expansions that are costing residents and businesses well in excess of ten million dollars per year in higher disposal costs. Increased recycling conserves valuable natural resources, energy, and existing landfill space and reduces the cost of developing new landfill space in the future. Recycling also supports job creation through the collection and processing of recyclables and in the manufacturing of new products from the recycled materials.

# Commercial Recycling Toolkit

## Boiler Plate



### **Recycling Waste Makes Good Business \$ense**

Yes, recycling can save money! Recycling is often less expensive than trash disposal. Whether you are just starting or are trying to improve an existing program, it always helps to have a plan. Designing an effective waste reduction program will insure that you comply with the Universal Recycling Law, will help reduce your waste stream, will save natural resources and energy, and has the potential for significant waste disposal savings. This toolkit will help you set up a new recycling program or help you evaluate your current programs.

Other elements of waste reduction include ways you reduce and reuse the waste you generate. The first and most effective component of the waste hierarchy is to reduce the waste created. Generators of waste are encouraged to reduce their waste by purchasing in bulk, buying items with less packaging and switching to reusable instead of single-use items. Businesses can adopt manufacturing methods that require fewer resources and generate less waste. In addition to benefiting the environment, these efforts often offer the financial incentive of lower expenses in purchases.

Despite efforts to reduce the amount of waste generated, consumers and businesses still create a substantial amount of waste. The U.S. Environmental Protection Agency estimates that each American generated 4.3 pounds of waste daily. Much of this waste can immediately be reduced, reused, or recycled to minimize the strain on the environment and municipal waste management. Examples include repairing, as opposed to replacing, broken items, and reusing raw materials in production. A very simplistic example is consumers using refillable water bottles to minimize the number of plastic bottles being discarded. Consumers have a financial incentive in this example as well because municipal water is far less expensive than bottled water.

### **Recycling Plan**

#### **Step 1: Identify your recycling program coordinator**

The facility manager or their designee should plan and oversee the recycling program. This individual should be motivated, have a good rapport with staff, and takes an interest in waste reduction, reuse, and recycling. Announce the program and the new recycling coordinator to all staff to encourage cooperation and compliance. The recycling coordinator should:

- Establish recycling policy and procedures.
- Interface with staff and with recycling service providers.
- Determine the start date of the program.
- Facilitate education & promotion of recycling by explaining how recycling works and why it is important.
- Track the progress and success of the recycling program.
- Assemble a green team to help plan, implement, evaluate and manage the program. Include key employees such as staff from the areas where recyclables are generated, members of the custodial staff, and grounds crew.

#### **Step 2: Conduct a characterization of your waste stream**

A waste characterization is the process used to quantify the types of wastes and recyclables being generated at your facility. You literally inspect, identify, and weigh the types of materials discarded. A characterization will help you identify recycling and waste prevention opportunities, potential savings from reduced disposal costs, potential revenue from the sale of recyclables, and help establish baseline data to measure future effectiveness of the program. To conduct a waste characterization:

- Contact your waste hauler, recycling service provider, or a consultant, or see [www.nerc.org/documents/town\\_business/recycling\\_makes\\_sen\\$e\\_guide.pdf](http://www.nerc.org/documents/town_business/recycling_makes_sen$e_guide.pdf), Appendix C, to do it yourself. DNREC may also be able to assist. Call 302-739-9403 for more information.
- Characterize all wastes and recyclables that are discarded by weight and type.
- Determine if recycling collection service is needed for special material streams.



### **Step 3: Identify the materials to be collected**

Work with your waste hauler, service provider, or waste/recycling consultant to collect and analyze the waste characterization information about the amounts and types of waste generated by your business. Discuss recycling collection options with your waste hauler or recycling contractor. Identify opportunities for reuse such as reusable totes instead of cardboard boxes and waste reduction through the elimination of excess packaging materials. For single-stream recycling programs all of the following materials can be commingled:

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Newspapers                      | <input type="checkbox"/> Plastic bottles, jugs, containers | <input type="checkbox"/> Boxboard        |
| <input type="checkbox"/> Magazines and catalogs          | <input type="checkbox"/> Corrugated cardboard              | <input type="checkbox"/> Telephone books |
| <input type="checkbox"/> Mixed paper (office, junk mail) | <input type="checkbox"/> Milk cartons and juice boxes      | <input type="checkbox"/> Rigid plastic   |
| <input type="checkbox"/> Glass bottles and jars          | <input type="checkbox"/> Aluminum and steel cans           | <input type="checkbox"/> Other _____     |

Large quantities of certain materials may be sorted for cost-effective recycling, such as corrugated cardboard, plastic film, and office paper. Following are some examples of material streams that may be beneficial to recycle separately.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Batteries   | <input type="checkbox"/> Pallets                         | <input type="checkbox"/> Hazardous waste             |
| <input type="checkbox"/> Packing peanuts (EPS loose fill)  | <input type="checkbox"/> Electronics                     | <input type="checkbox"/> Used textiles               |
| <input type="checkbox"/> Carpet  | <input type="checkbox"/> Plastic film                    | <input type="checkbox"/> Landscaping waste (organic) |
| <input type="checkbox"/> Paint   | <input type="checkbox"/> Food waste                      | <input type="checkbox"/> White goods (appliances)    |
| <input type="checkbox"/> Construction & demolition debris  | <input type="checkbox"/> Single-stream items (see above) |  |
| <input type="checkbox"/> Fluorescent lamps and bulbs (consider using high efficiency fluorescent ballasts and lamps (T-5 & T-8)) |  |  |
| <input type="checkbox"/> Ink and toner cartridges (Many suppliers provide take-back programs)                                    |  |  |

For more information see: [www.recycling.delaware.gov](http://www.recycling.delaware.gov) or [www.dswa.com/programs.asp](http://www.dswa.com/programs.asp)

### **Step 4: Determine collection program logistics**

Making recycling easy and convenient will boost levels of participation. Inconsistent participation or failure to follow recycling procedures will affect the yields of your program—both in terms of the quantity of the recyclables recovered and their quality (i.e. how much contamination is in your recycling stream). Recycling should be as easy as throwing something in the trash, but the type of collection that works best is a function of the type and value of the recyclable, convenience, and costs. Take the following criteria into consideration when choosing containers:

- |             |                    |                      |
|-------------|--------------------|----------------------|
| • Placement | • Durability       | • Appearance         |
| • Location  | • Ease of handling | • Opening type       |
| • Capacity  | • Cost             | • % recycled content |

The recycling containers should look different from trash cans, and be easily identified and labeled. Labels can be self-made or purchased. Lids should have restricted openings. Consider choosing blue bins for recycling, green for organic wastes, and black for trash. Use clear liners for recycling so staff can easily identify recyclables from trash, and use compostable bags for food wastes. Other considerations include:



- Is your recyclable storage area of adequate size for your hauler to pick up?
- Do your recyclable materials need to be crushed, baled, banded or compacted?
- Is a recycling service needed for a specific material stream?

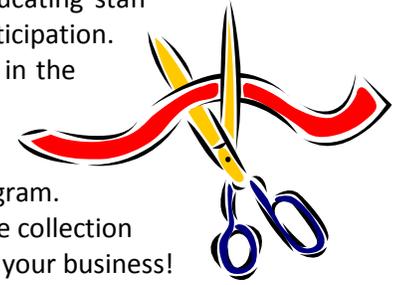


### **Step 5: Select a recycling service provider**

A recycling service provider can be one or more vendors that will pick up your recyclables for processing. While many waste haulers offer recycling services, some companies specialize in providing strictly recycling services. Services might include baling, shredding, crushing, or compacting, as well as transporting and marketing the recyclable materials. Discuss collection schedules and options with a variety of service providers and request a billing structure that will reduce your waste disposal costs. Monitor how full collection dumpsters are and make arrangements to adjust the collection schedule based on volume. Also note that scrap yard dealers may pick up scrap metal and other materials at no charge, or even pay you for sufficient quantities of metal. Reuse organizations may pick up items such as used appliances, building materials, fixtures, and furniture. Finally, if you choose not to use a collection service you can self-haul your recyclables directly to a recycling processor.

### **Step 6: Outreach and Education**

Before you launch the program, spend time promoting your recycling effort and educating staff about recycling procedures. Implementation will require an ability to motivate participation. Once the program has begun, you should reinforce good habits and keep up interest in the program.



Choose a launch date to officially start the program. Alert staff well in advance and prepare simple information explaining the benefits and procedures to promote the program. Organize training sessions for those who will be involved with the implementation of the collection program. Prepare a press release to publicly announce and promote the program – and your business!

Consider an event to launch the program and to generate some enthusiasm. Invite staff members to the event. Involve local business and government leaders with a “ribbon-cutting” ceremony.

For a recycling program to be effective you must educate staff and participants. This can be done in a variety of ways including but not limited to:

- Download and distribute the ‘How to Recycle’ guide and poster (available in Spanish) at: [www.recycling.delaware.gov](http://www.recycling.delaware.gov).
- Meet with staff to discuss the recycling procedures and program goals.
- Inform contractors and vendors about the program.
- Place recycling information in obvious and readily available locations.
- Stress the importance with staff that recyclables be kept free of trash and contamination.
- Place labeling and signage with recycling information on trash and recycling containers, carts, and dumpsters (examples: ‘Recycling Only – No Trash’ and ‘Trash Only – No Recycling’).
- Display recycling goals and/or promote the amount that has been recycled on signs and displays.
- Request feedback from custodial staff regarding contamination or improper handling of recyclables.
- Send out press releases to publicize your recycling program when milestones are met.
- Encourage participation and publicize program successes through newsletters, e-mails, posters, and new employee orientation.

### **Step 7: Sustaining the program**

Monitor and evaluate the recycling program on a regular basis. If available, request a monthly disposal report from your hauler stating the amounts of recyclables by material type and disposal data in tonnage or cubic yard measurements.

- Post the quantities of recyclables collected, total waste diverted, and revenue from the sale of recyclables.
- Calculate the percentage of waste diverted by your recycling program – compare the tonnage of recyclables collected to the tonnage of waste generated.
- Maintain records for charges for hauling waste and recyclables. Calculate savings from reduced disposal costs.
- Request contamination reports from recycling hauler or perform routine inspections of recyclables.
- Monitor progress and make the diversion rates mean something – Translate the data into terms the average person can understand.
- Consult DNREC @ 302-739-9403 or a private consultant for help.

### **Additional strategies for waste reduction**

In addition to recycling, the following waste reduction strategies can reduce operating costs associated with unnecessary material use and waste.

**Reduce** – Purchase, consume, and throw away less. Use upstream control of the volume and types of wastes generated through purchasing decisions. Source reduction actually prevents the generation of waste in the first place, making it the preferred method of waste management. Methods may include:

- Encourage suppliers to reduce packaging in purchases and shipping
- Use renewable, refillable, or returnable containers
- Discourage single-serve containers for food and condiments - serve these items in bulk
- Provide water coolers or water pitchers to minimize the use of single-use bottles
- Encourage use of travel mugs and reusable water bottles for beverages
- Use reusable mugs, plates, and cutlery in the lunch room, and for parties and events
- Discourage the use of unnecessary disposable items such as plastic straws and stir sticks
- Use long-lasting, energy efficient light bulbs and fixtures

- Implement double-sided copying as the default setting on all printers and copiers
- Compost food waste on-site, or have it collected by a local composting facility
- Replace paper towel dispensers in restrooms with air dryers

**Reuse** – Reuse items by repairing, donating, or selling them. Reuse is even better than recycling because items do not have to be reprocessed before they can be used again.

- Store and reuse pallets, hangers, packing peanuts, shipping boxes and containers
- Set-up a 'Reuse Area' in the workplace for office supplies you no longer need
- Donate surplus office materials
- Reuse laser and printer cartridges by participating in take-back programs
- Partner with local churches, food banks, and homeless shelters to deliver left-over food to those in need
- Donate leftover construction materials, such as lumber, fixtures, and paint, to a reuse organization

**Buy Recycled** – If you are not buying recycled-content products you are not recycling! Consider implementing a sustainable or 'green' procurement policy to encourage the purchase of materials made with recycled or refurbished content. You may also include bid specifications that give preference to products made from recycled materials. Purchase products that are re-manufactured or made from post-consumer waste (PCW) such as:

- Paper products (office paper, napkins, paper towels, toilet tissue, etc.)
- Packaging
- Carpeting
- Toner and printer cartridges
- Office furniture



**Additional Resources:**

**Delaware’s Universal Recycling Grant and Low Interest Loan Program:**

[www.dnrec.delaware.gov/services/Pages/Loans.aspx](http://www.dnrec.delaware.gov/services/Pages/Loans.aspx)

**Delaware Recycles:** [www.recycling.delaware.gov](http://www.recycling.delaware.gov) and

[www.facebook.com/DelawareRecycles](https://www.facebook.com/DelawareRecycles)

(Download 'How to Recycle' guide, Commercial Recycling toolkits)

**DNREC, Division of Waste and Hazardous Substances:** [www.dnrec.delaware.gov/whs/awm](http://www.dnrec.delaware.gov/whs/awm) or call (302) 739-9403

**Delaware Solid Waste Authority (DSWA):** [www.dswa.com](http://www.dswa.com) or call 1-800-404-7080.

**Electronic waste:** For guidance in disposing of electronic waste and take-back programs

DSWA: [www.dswa.com/programs\\_EGRbusiness.asp](http://www.dswa.com/programs_EGRbusiness.asp)

Step Initiative: [www.step-initiative.org](http://www.step-initiative.org)

EPA: [www.epa.gov/epawaste/consERVE/materials/eycling/index.htm](http://www.epa.gov/epawaste/consERVE/materials/eycling/index.htm)

**EPA Environmentally-Preferable Purchasing Program:** [www.epa.gov/epp](http://www.epa.gov/epp) (Costs and benefits of purchasing choices)

**EPA Food Recovery Challenge:** [www.epa.gov/foodrecoverychallenge](http://www.epa.gov/foodrecoverychallenge) (Food waste reduction)

**Green Business:** [www.greenbiz.com](http://www.greenbiz.com)

**Northeast Recycling Council:** [www.nerc.org](http://www.nerc.org)

[www.nerc.org/documents/town\\_business/recycling\\_makes\\_senSe\\_guide.pdf](http://www.nerc.org/documents/town_business/recycling_makes_senSe_guide.pdf) (see Appendix C)

**Product Stewardship:** [www.productstewardship.us/index.cfm](http://www.productstewardship.us/index.cfm)

**Special Wastes:** [www.dnrec.delaware.gov/whs/awm/Recycling/Pages/Recycling.aspx](http://www.dnrec.delaware.gov/whs/awm/Recycling/Pages/Recycling.aspx) or [www.dswa.com/programs.asp](http://www.dswa.com/programs.asp)

(Some material streams including: batteries, fluorescent lamps and bulbs, ink and toner cartridges, paint, prescription medication, scrap tires, used motor oil, and white goods may require special handling)

**Sustainable Business:** [www.sustainablebusiness.com](http://www.sustainablebusiness.com)

**The Emerson Good Samaritan Food Donation Act:** [www.gpo.gov/fdsys/pkg/PLAW-104publ210/pdf/PLAW-104publ210.pdf](http://www.gpo.gov/fdsys/pkg/PLAW-104publ210/pdf/PLAW-104publ210.pdf)

Encourages food donation to nonprofits by minimizing liability, in accordance with the Model Good Samaritan Food

**US Green Building Council:** [www.usgbc.org](http://www.usgbc.org)

**More recycling information:** [www.earth911.com](http://www.earth911.com)