

Hospitality

**A Best Practices Guide to Waste Reduction and Recycling
with an introduction to Zero Waste principles**



**NEBRASKA RECYCLING
COUNCIL**

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Introduction

The Nebraska Recycling Council produced "Hospitality – Hotels and Motels: A Best Practices Guide for Waste Reduction and Recycling" to provide a simple process for owners and managers to go from zero recycling to Zero Waste. Hotels are complex operations that generate many different types of wastes, including those brought in by guests. Yet, hotels and motels around the world have proven they can cut costs and conserve natural resources by reducing, reusing and recycling.



Many travelers are attracted to eco-friendly hotel practices, some of which save money and create efficiencies for hotel management.

Moving toward Zero Waste is the goal of this Guide; but the first steps are to organize, analyze, and design a program that begins with basic waste diversion and employee training.

The state of recycling in Nebraska

The State of Nebraska released a *Waste Characterization Study* in 2009 that measured categories of wastes in eight landfills across the state. The main objective of this study was to determine the characteristics of Nebraska's solid waste stream and establish a baseline of waste characterization data for the state. The three largest portions of Nebraska's waste stream were paper fibers at 41.15%, plastics at 19.13%, and food at 16.64%. Combined, these three materials comprised almost 77% of Nebraska's total waste stream.

More than 50% of the paper fibers were easily recyclable and approximately 27% of the plastics were easily recyclable. Food waste composting options have become more available since the study, although commercial composting services are mostly limited to larger metropolitan areas of the state. (Metals, comprising 3.64% of Nebraska's municipal waste stream, were easily recyclable more than 75% of the time.)

A *Nebraska Recycling Study* was conducted in 2015 to inform policy decisions and establish a baseline to measure progress in the future. The major findings were: "1) Nebraska lags in recycling compared to other states; 2) there are significant gaps in availability and accessibility to recycling in the State; 3) there is not currently a comprehensive plan or strategy to improve recycling in Nebraska; and 4) there are best practices demonstrated to be effective in other locations and in Nebraska communities that could be implemented across Nebraska, leading to reductions in waste and increases in recycling."

[http://www.lonm.org/attachments/Bulletins/2015/Statewide Recycling Study Final Report.pdf](http://www.lonm.org/attachments/Bulletins/2015/Statewide_Recycling_Study_Final_Report.pdf)

A few words on Zero Waste

Zero Waste principles are logical and straightforward. Taken as a whole, they are demanding; but the road to Zero Waste is a process that requires commitment, not perfection. Documentation (measurement and tracking) is key to navigating the path to Zero Waste, and it is also good due-diligence for any waste diversion program. Below are the fifteen areas in which a business seeking Zero Waste Certification must earn credits.

1. **Redesign** – right size containers and frequency; restructure waste collection agreements; review nine points of waste generation to eliminate wasting and pursue the highest and best use; review purchasing records and supply chain agreements.
2. **Reduce** – document materials reduced by commodity; have tracking program for materials flows; reduce size/amount of product packaging; go paperless for at least one major office function; duplex printing on all printers; grass-cycle; use native landscaping and xeriscaping.
3. **Reuse** – develop reuse systems; document reused pallets and shipping containers; implement reusable transportation options; reuse office supplies or other materials; reusable/durable service ware; donate food for human consumption; donate food for animal feed.
4. **Compost (Re-earth)** – collect compostables separate from trash; yard trimmings composted; on- and off- site composting of food scraps and soiled paper; utilize/reuse compost or mulch on-site; implement other technologies (e.g. digestion); growing food on-site for company use.
5. **Recycle** – 80% of 12 market categories, follow Highest and Best Use; document markets/uses for recyclables and use locally as much as possible.
6. **Zero Waste Reporting** – document 90% diversion by commodities; track economics (including avoided costs & material sales revenues); use US EPA WARM Model for Climate Reports; US EPA Waste Wise Program Member.
7. **Diversion from landfill, incineration, and environment** – showing diversion rates above 90%.
8. **Zero Waste Purchasing** – Environmentally Preferred Purchasing policy; durable goods preferred over disposables; prefer sustainably produced paper and wood products; EPP highlighted in purchasing catalogs; purchase as priority used, refurbished, and/or remanufactured goods.
9. **Leadership** – Zero Waste goal adopted by upper management; upper management reviews monthly diversion activities; staff incentives encourage Zero Waste; take responsibility for all products and packaging for all company brands; require suppliers take responsibility for all products and packaging; upper management promotes Zero Waste in the community.
10. **Training** –Zero Waste policy provided to all employees; Zero Waste in orientation; communicate at least quarterly with staff about Zero Waste; clearly label receptacles for recyclables, compostables, and

Zero Waste

Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use.

Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them.

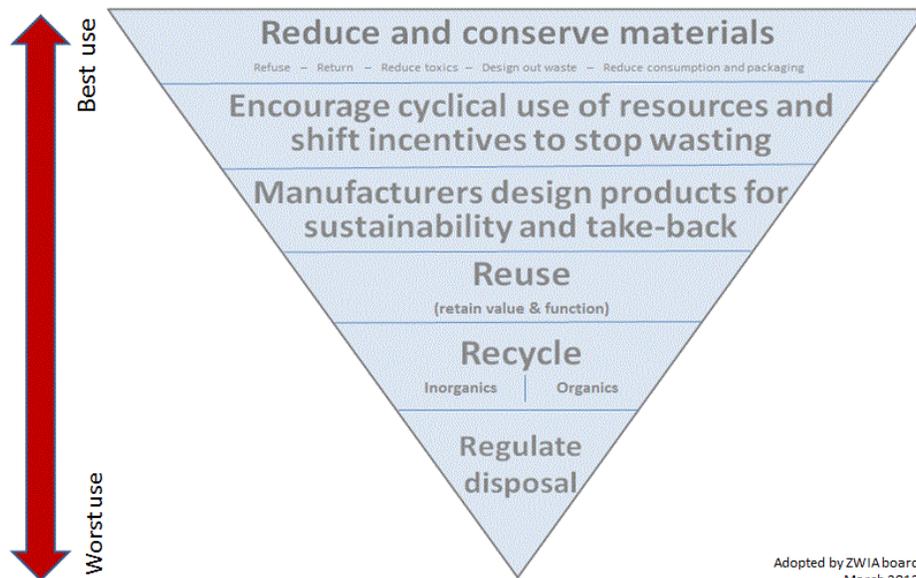
Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health.

~International Zero Waste Alliance

landfill material; training for purchasing agents on EPP preference; Zero Waste responsibility in job description; Zero Waste training on internal website.

11. **Zero Waste Analysis** – physical waste analysis done annually; complete recommendations from waste analysis; complete annual audit of recyclables to ID contamination; rejected recyclables documented as waste; staff engaged in waste analysis.
12. **Upstream Management** – work with suppliers to eliminate non-recyclable packaging; request vendors to be Zero Waste; 100% recyclable packaging policy; work with suppliers to redesign products for reusability/recyclability.
13. **Hazardous Waste Prevention** – hazardous materials properly labeled and stored; hazardous waste manifests saved for at least 3 years; reuse or recycle universal wastes; replace hazardous materials with non-toxics; reuse or recycle universal wastes from employees and/or community.
14. **Closed Loop** – 30% recycled office paper; 20% recycled janitorial paper products; purchase compost from facility that composts your material or from local sources; use local markets as much as possible.
15. **Innovation** – upcycle non-traditional recyclable materials; commit to continuous improvement.

Zero Waste Hierarchy



Adopted by ZWIA board
March 2013

Zero Waste Facility Certification

Zero Waste Certification is awarded to *facilities* that meet the Zero Waste Principles of the Zero Waste International Alliance. For more information, visit <https://uszwbc.org/certification/facilities/certification-program/>.

Ready, Set, Go!

Waste streams generated by hotels include waste from construction and refurbishment, consumables (e.g. paper, toner, batteries), durable goods (e.g., furniture, office equipment, appliances), food and beverage, hazardous materials (e.g. cleaning solutions, fluorescent bulbs), and recyclable oil. Guests also bring materials in and leave packaging behind. Hoteliers can use a variety of strategies to reduce, reuse, and recycle wastes to minimize processing and hauling costs. But, where to begin? Because of the complexity involved, it makes sense to break it down into smaller steps.

Step 1: Form a team

1. **Select department representatives.** Assemble a team to help plan, implement, evaluate and manage the waste reduction program. Ask for a volunteer from each department, and assign staff if no volunteer comes forward. Form a team to share the ideas and goals behind your waste reduction program with the entire organization. Your team may wish to begin zero waste initiatives one department at a time or one material at a time. Piloting a narrowly focused program helps team members get into problem-solving mode without being overwhelmed by the scope of the project.
2. **Write a team charter.** A charter will help your new team get off to a solid start. It describes the purpose of the team, expectations of team members, term limits, meeting times, frequency, and other “rules of engagement”.

Step 2: Gather information

1. **Find out what’s in your trash.**
 - a. Visit all areas of your building where waste is generated. List all the reusable, recyclable, organic (including soiled paper) and landfill items generated from each area. Include guest rooms, front desk, restrooms, lobby and breakfast area, restaurant, pool and exercise rooms, vending machine areas, storage/supply rooms, office, staff and public-use printer and copier rooms, break rooms, shipping and receiving, mechanical rooms, kitchen, outside exit doors, and parking areas.
 - b. Conduct a waste audit to measure the amount of recyclables in your trash.
 1. A visual assessment involves looking at receptacles throughout the hotel or department and estimating how much can be recycled versus landfilled. Note where the materials are being generated and how full each container is prior to emptying them into a central collection area.
 2. A waste sort involves collecting all the trash in the hotel or department for one day, labeling trash bags with the department or area from which they were generated, sorting trash from recyclables, and recording the weight and volume of each. Find out

Take Inspiration

***Sheraton San Diego Hotel & Marina** started their waste reduction program department by department and went from 15% diversion to nearly 90%. When they learned that 50% of their waste was from food, they brought in their local composting facility for program guidance.*

<https://www.youtube.com/watch?v=2FxotojtDnI>

from your local recycling company what materials can be recycled and if they can be co-mingled. This is the most effective method for obtaining accurate figures and getting a true baseline.

3. The Nebraska Recycling Council can perform a fee-based waste audit for your organization. A waste audit will:
 1. Determine the quantity and type of waste generated.
 2. Provide a baseline from which you can measure progress and set goals.
 3. Identify opportunities for waste reduction, recycling and reusing materials.
 4. Validate the costs and the savings for implementing a waste management plan.
 5. If there is already a recycling program in place, an audit will help identify areas where contamination is occurring.

2. Evaluate the potential for waste reduction.

Eliminating waste before it occurs is the top strategy for reducing costs. Review data from your waste review or audit for ideas. Involve employees and ask for ideas on how to improve.

- a. Make sure you're buying only what you need. This is especially important with perishable items.
- b. Are there durable, reusable substitutes for some of your materials? Think dinnerware and napkins.
- c. Provide staff with reusable mugs and water bottles to reduce disposable beverage cup usage.
- d. Assess food waste by spoilage, prep waste and plate waste. There are different strategies for reducing each. US EPA has an excellent [guide](#) for reducing food waste.
- e. Review this food waste video by LeanPath for ideas: "[5 Food Waste Myths to Debunk](#)" and this excellent article published in Open Table's "Open for Business" blog: [How to Prevent Food Waste Before It Starts](#).
- f. Review all documents that are regularly printed and evaluate whether a printed copy is necessary. Make electronic copies available to all appropriate staff.
- g. Make the default setting on all printers and copiers to print double-sided.
- h. Offer unwanted linens and furniture to local non-profits or reuse stores.
- i. Offer used electronics (televisions, computers) to employees and nonprofits first. Contract with an R2 or e-Steward certified electronics recycler for non-working electronics disposal.
- j. Use the Materials Exchange of Keep Nebraska Beautiful to get rid of useful items nonprofits can use. <http://www.knb.org/exchange.html>

3. Evaluate your indoor containers.

- a. Inventory your current container count by volume (size), color and location.
- b. To encourage better recycling behaviors, consider the following principles:
 1. Color-code recycling, trash and organics containers. The color standards are: Blue for Recycling, Black or Gray for Landfill, and Green for Organics.

Clean the World

Sign up to send your soap and hygiene products to [Clean the World](#). They collect and recycle soap and hygiene products from the hospitality industry and distribute them to impoverished people. Soap helps to prevent some of the millions of hygiene-related deaths each year, reduce the morbidity rate for hygiene-related illnesses, and encourage vigorous childhood development.

2. Better signage. Color-coding is essential here too, and signage works best when there is a combination of photographic images and words.
3. Create multi-use stations. Always pair a recycling bin immediately next to every landfill bin. Users need conveniently located, color-coded and well-labeled bins to make the right choices, or contamination will occur. If organics are being collected, those containers will need to be placed next to the others too.
- c. Evaluate usefulness of current containers. Are there enough containers? Too many? Could they be placed in locations that are more convenient for users, e.g. high-traffic areas?

4. Assess your current hauling service. **

Look at your outdoor trash dumpsters.

- a. How many of each size do you have?
- b. How often are they picked up?
- c. How full are they when they are picked up?
- d. Are any of the containers used for recycling?
- e. Are containers shared with other businesses?
- f. Do you contract directly, or is this part of your lease?

5. Compare hauling services and pricing. Ask your hauler and two others (if available) these additional questions:

- a. What are the different sizes of dumpsters offered and what are the associated costs?
- b. How much is charged each time the dumpster is pulled?
- c. Can they help right-size your dumpsters?
- d. Are there other businesses on this block that use their services?
- e. What materials do they accept for recycling?
- f. Can they provide a separate dumpster for cardboard free of charge?
- g. Do they offer organics recycling?
- h. Will their dumpsters be well-labeled according to material?
- i. Are their containers lockable to prevent scavenging, and will they be compatible with your available space?
- j. What is the collection schedule, and are there options to minimize frequency of pickups and transportation costs to haul your waste away?
- k. Can you downsize your garbage service to cover the costs of recycling and composting?
- l. Do they offer on-site waste audits, educational materials and/or training?

Better Signage

Recycle Across America is a nonprofit organization that advocates for consistent signage on recycling containers across the country. They sell high-quality, weather-resistant labels in many configurations, that can be customized to specific needs.

www.recycleacrossamerica.org

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Leaseholders**

Contact your property owner or manager to find out what additional hauling services are available. Talk to other tenants in the property to find out if they are also interested in recycling and composting.

6. Survey employees.

Have your employees complete a survey to help you develop better recycling tools and training programs.

- a. Ask detailed questions about every step of the trash/recycling/organics handling process from receiving goods to taking materials to the central collection area outdoors to understand which processes are perceived as the greatest barriers.
- b. Ask specific questions about employee views on the benefits of recycling.
- c. Consider the information gathered when designing your processes and internal communications plan.

Hauler Terms & Conversions

Study the hauler lexicon before getting quotes.

https://nerc.org/documents/hauler_terms_and_waste_conversion_factors.pdf

Step 3: Develop an action plan

1. Determine the scope of your program.

- a. Choose the department(s) in which to begin your program.
- b. Focus on common recyclables in your trash.
 1. Paper products. Cardboard, printing and writing paper, copy paper, brochures, newspapers, envelopes, shredded paper.
 2. Bottles and Cans
 3. Food waste.

2. Review quotes from haulers and select one that best fits your needs.

Ask if they are willing to work with you during a trial period.

3. Count and size containers to be purchased and reused.

Look at your container inventory. Now that you know the color-coding standards, start counting how many containers you will need to purchase, subtracting the number of containers you already have that can be reused.

4. Purchase recycling containers and labels.

Nebraska Recycling Council offers recycling equipment grants for containers and labels. Also check with your local municipality about grants and incentives related to recycling containers. For a list of good container companies, visit www.nrcne.org and click on the *Buy, Sell, Trade* tab. NRC approved labels can be found at www.recycleacrossamerica.org.

5. Advocate for support.

- a. Report your findings to the building manager or owner and bring them on board. Help them understand that recycling demonstrates your commitment to the environment and the community, has the potential to save money, and is attractive to customers.
- b. Inform employees about your program goals, and ask for their ideas and support. Identify recycling champions amongst your staff.
- c. Review the employee survey results. Which barriers to recycling stand out? How can you make the barriers easier to overcome? What can you do to discourage undesirable behavior and reward the behaviors you want to encourage?
- d. Add recycling/composting tasks to job descriptions, employee orientation, employee manual and performance reviews.

Cooperative hauling

If you are concerned that a new recycling dumpster will not fit in your central collection area for waste, contact adjacent businesses to find out if they would consider sharing landfill and recycling containers. It might take some trial and error, it could reduce the number of dumpsters and save money.

6. Design for Food Waste Diversion.

Once you have reduced surplus food in your operation, the next step is food recovery: food-to-people, food-to-animals, and finally, composting.

- a. Food to people. You may donate any fresh or prepared food that is still fit for human consumption to a food rescue agency or an agency that provides meals to homeless or needy people. *The federal [Bill Emerson Good Samaritan Act](#) protects donors from liability when donating to a nonprofit organization. Unserved menu items and buffet foods, unused food from catered events and day-old baked goods are suitable. Learn about the Food Recovery Network in this [video](#).
- b. Food-to-animal. Contact a local farmer to have your food waste hauled and fed to animals. This could be food prep waste, plate waste, and unpackaged foods.
- c. Organics composting. Commercial composting facilities can process a wide range of organics materials. Check with your local service provider to learn what is acceptable at their facility. Generally, it may include produce, meat, bones, grains, baked goods, cheese, coffee grounds, and food-soiled paper, such as uncoated paper plates, trays and cups, paper towels and napkins, parchment paper, egg cartons, soiled pizza boxes and waxed cardboard boxes.



Step 4: Set up your program

1. **Set up measurement tools.** Prepare to document amounts of materials you will be diverting from the waste stream and associated costs. If you conducted a waste audit initially, you will have a baseline from which to compare progress. This information will be useful when making future decisions about waste management. This will also be a way to share the results of your new program with staff, providing tangible evidence of the benefits of their efforts. Try the [US EPA's WARM tool](#) for entering data.
2. **Set up indoor recycling containers.**
 - a. Set up sorting stations where waste is generated and in other high-traffic areas.
 - b. Place recycling, landfill and organics containers immediately next to one-another.
 - c. Use color-coded bins (or color-coded liners if color-coded bins are not in the initial budget)
 - d. Use color-coded labels with images.
 - e. Place labels on bins and at eye-level where possible.
3. **Set up a compostable food collection system.**
 - a. Work with your composting company to devise a workable system of food collection.
 - b. Collect food in dedicated, leak-proof containers that are covered when not in use.
 - c. In the kitchen, make sure your food waste containers are sized so they can hold enough food to be practical, but won't get too heavy. Consider using a 5-gallon reusable food bucket. Empty its contents into a larger toter (on wheels) at the end of each day and have staff run buckets through the dishwasher at the end of their shift to control the risk of fruit flies and odor.
 - d. On the serving floor, be sure to have wait staff remove non-organic items from food waste, like straws, creamer packets, etc. before scraping plate waste into a 5-gallon reusable food bucket. Once full, it can be emptied into the toter in the kitchen and cleaned at the end of the shift.
 - e. Food waste should be removed from the kitchen at the same frequency as landfill waste. If odor becomes a problem, consider temporarily storing food waste containers in a walk-in cooler before taking outdoors.
4. **Set up the outdoor central collection area.**
 - a. Place all dumpsters or carts together- landfill, recycling and compost. Contamination occurs when one bin is in a different or more convenient location than the others.
 - b. Label all carts and dumpsters with color-coded labels to help workers quickly identify where each type of waste belongs.
 - c. Include the central collection area in the training of all employees and contractors that handle wastes.

Celebrate Zero

Finish Steps 1 - 3, and you will have already begun these steps:

- *Redesign*
- *Reduce*
- *Reuse*
- *Recycle*
- *Compost*
- *Zero Waste Reporting*
- *Zero Waste Purchasing*
- *Zero Waste Analysis*

Step 5: Kick it off!

Train your entire staff to be sure that everyone understands the purpose and goals of the program. A kick-off event (for each shift, where appropriate) is an opportunity to demonstrate what can and cannot be recycled,

how to sort, collect and store materials properly, assign responsibilities and share any changes that will be made in personnel policies.

1. Employees.

- a. Share the goals of your program.
- b. Show staff how to recycle and when to compost or landfill with real items from your back of house and front of house, and include how to process certain items before recycling (e.g. making sure containers are clean and empty). Give employees an opportunity to try it out.
- c. Share the importance of keeping materials free of contamination - i.e., only recyclables in the recycling bin and only compostables in the composting bin.
- d. Train staff to safely cut up boxes and lay them flat in the cardboard bin. That will reduce empty space between loosely packed boxes so you can fit more in for each pick up and save money.
- e. Include the central outdoor collection area in your training so employees learn where the correct containers are.

2. If contractors do cleaning in your establishment, be sure they are instructed as well.

- 3. Assign a manager or other champion** with the task of monitoring and helping employees and customers separate their waste correctly. Provide gloves or grabbers for this person to physically move materials from one bin to another when mistakes are made. Once contamination occurs, people tend to follow the example.

Celebrate Zero

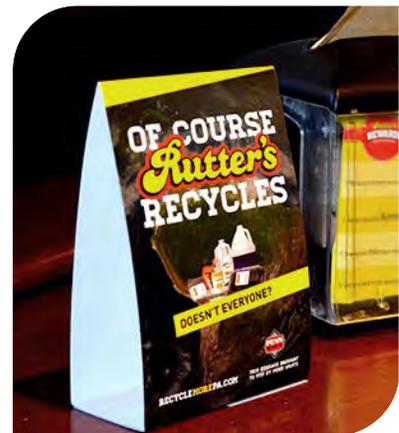
By now, you have accomplished

- *Diversion from landfill*
- *Leadership*
- *Training*
- *Innovation*
- *Hazardous Waste Prevention*

Step 6: Promote your program

Employees and customers are more likely to embrace your waste diversion program if you promote it on a regular basis and make it a part of your company's culture. People love success, so it is worth the effort to celebrate your achievements.

- 1. Take advantage of national days to promote your program.** Use Earth Day (April 22) and America Recycles Day (November 15) to celebrate your success.
- 2. Highlight the program** on your website and social media, and include recycling/composting information on menus, posters, table tents, door hangers and flyers.
- 3. Partner with your hauler** to help monitor diversion rates and promote your progress.
- 4. Appoint champions** on each shift to help employees and customers recycle correctly and keep everyone informed about the progress you have made.
- 5. Inform vendors.** Share your goals, recycling efforts, and progress with vendors.
- 6. Share your knowledge** with other local restaurateurs and foodservice establishments.
- 7. Alert local recycling officials** about your efforts. Share milestones as you continue toward zero waste.



8. **Post results.** Let employees know how much waste is being diverted by posting monthly or annual results.
9. **Recognize employees** or groups of employees for their efforts in recycling.

Step 7: Keep it going

At first, frequent (at least weekly) monitoring for contamination and evaluation of processes is important. Ask employees to be on the lookout for creative solutions as you work out the details. Once the program has been underway for a while, be sure to:

1. **Continue staff training.**
 - a. Use staff training meetings to add more information about recycling and provide regular updates on progress.
 - b. Request feedback from staff regarding contamination or improper handling of materials.
 - c. Recognize and reinforce proper recycling and composting efforts by staff.
 - d. Train all new employees.
2. **Conduct an annual waste sort** to monitor and identify improvements that can be made.
3. **Gradually reduce more items from your waste stream.**
4. **Adopt an “Offer First Policy” for straws and other non-essential items that guests might not need.**
5. **Review waste hauling and disposal records and contracts.** Examine 12 months of records to identify fluctuations in the amount of waste produced and any opportunities to reduce that waste and service fees.
6. **Introduce Environmentally Preferred Purchasing (EPP).** EPP is defined as the purchase of products and services that have a reduced effect on human health and the environment compared to other products and services that serve the same purpose. Green cleaners reduce the risk to your worker’s health related to long-term exposure of toxic chemicals.
 - a. To start an EPP program, inventory existing products purchased, particularly cleaning and paper products, office supplies, electronics and appliances and lighting.
 - b. Ask your suppliers to suggest products that maximize post-consumer recycled content, minimize toxicity, minimize packaging, and/or offer take-back programs.
 - c. Ask for samples and have your staff test them before ordering in large quantities.
 - d. If your supplier is not able to comply with your request for EPP products, you may find alternative suppliers on the internet. Look for [Green Seal](#) certified products.
 - e. Document the products you are substituting for the **Hazardous Waste Prevention** credit toward Zero Waste. Track the comparative costs.

Celebrate Zero

Bravo! Chances are that by now, you have already begun to tackle **Upstream Management** and **Closed Loop**, the final frontiers on the road to Zero Waste. Perhaps [Zero Waste Facility Certification](#) is within reach!



www.nrcne.org

Acknowledgements

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