

# Food Service Pollution Prevention - Restaurants

This tip sheet is part of a series of pollution prevention tip sheets focusing on different business sectors. The Anchorage area hosts about 575 food and drink establishments (almost 1/3 of all food and drink establishments for the entire state), including more than 200 full-service restaurants.

Restaurant and food-service employment represents 8.6 percent of total employment in Alaska and job growth in the industry over the next ten years is expected to be almost 23%.

The two primary components of the waste stream of any restaurant are product wastes and packaging wastes. Organics (e.g., food waste) comprise the greatest portion of a full-service restaurant's waste stream by weight. Packaging, primarily corrugated cardboard, generally is the largest component by volume.

For fast-food restaurants, paper accounts for the bulk of the waste and food scraps account for somewhat less. This is because more of the food is pre-prepared off-site and arrives at the restaurant in measured portions ready for cooking. In addition, portions are smaller and more "to order" in fast-food restaurants than in full-service restaurants and much of the food is "carried out" and eaten elsewhere.

## Pollution Prevention for Restaurants

This tip sheet focuses on specific activities, waste streams and opportunities for restaurants and provides resources and web links for more detailed information. Since the available information is so plentiful, this tip sheet only skims the surface and is designed to help restaurant managers begin the search for pollution prevention ideas and resources.

While developing a pollution prevention plan for your restaurant, be sure to consider the basic waste prevention, recycling, energy conservation, and toxics reduction opportunities discussed in Green Star Tip Sheets #1 - #9. These tip sheets can be found on the web at [www.greenstarinc.org/tipsheets.php](http://www.greenstarinc.org/tipsheets.php).



## Purchasing Pollution Prevention

Purchasing for a restaurant is crucial to preventing waste. Many of the items purchased are perishable, requiring very precise planning. Here are some ideas that can help reduce waste through changes in purchasing habits.

- Eliminate multiple points of purchasing. Take advantage of potential economies of scale by working with only a few suppliers.
- Purchase commonly used products in bulk. For example, coffee can be scooped into filters using a measuring cup instead of using preportioned packets; rice can be purchased in large sacks instead of small boxes. Do not purchase items in bulk that will spoil before all is used.
- Develop an electronic ordering system to reduce guesswork in ordering supplies.
- Specify that products be delivered in returnable crates, racks, and/or containers. Contact vendors to determine if this option is available and discuss this and other packaging waste reduction strategies with your suppliers.
- Purchase prepared items when possible. Using prepared or precut items, such as vegetables, fruits, meat, poultry and fish, reduces on-site waste generation.
- Purchase items with recycled content when possible. Look beyond just paper and office products and consider recycled products whenever you purchase.
- Purchase locally produced foods. Anchorage and the Valley offer numerous fresh and processed food product options.



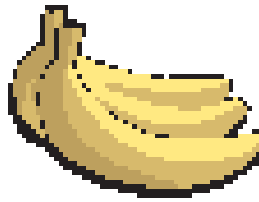
## Food Handling and Storage

From the moment food enters your restaurant, you can improve your efficiency by reducing waste generation.

- Schedule deliveries for a time when someone can be available to greet suppliers and inspect all products. This is especially important with fresh meats, fruits, and vegetables, but also a good idea for nonperishables, paper goods, cleaning supplies, and other items. Do not accept damaged or spoiled products. You will only have to pay for them, then pay again to discard them.

## Food Handling and Storage (cont'd.)

- Institute just-in-time delivery. The longer food is held in your restaurant, the more likely spoilage waste, over-portioning, theft, or loss will occur.
- Take frequent inventories to avoid spoilage and over-purchasing.
- Rotate perishable stock and date containers to minimize spoilage. Adopt a first-in, first-out policy.
- Store food in plastic resealable containers to prevent dehydration, spoilage, and leakage. Many food items are delivered in 1-gallon or 5-gallon plastic tubs, which can be reused for this purpose.
- Be sure all coolers and freezers are working properly and store items appropriately with circulation space around them. Refrigerators should be at 40°F and freezers should be at 0°F.
- Pre-cool hot foods in an ice bath before placing them in coolers. Store hot foods in shallow containers. Both of these methods will help prevent premature spoilage and keeps the cooler from working overtime to cool items.



## Food Preparation

How and what you prepare in your kitchen can make a big difference in your waste stream.

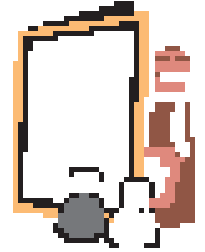


- Prepare food to order to reduce waste from over-preparation.
- Cross-utilize products. For example, use end pieces of filet cuts as appetizers or in soups and stews; use vegetable scraps and bones in soup stocks.
- Streamline your menu, eliminating rarely ordered items. Offer items that share several ingredients.
- Examine customer leftovers on a regular basis. Determine what items and how much are left on plates and adjust portion sizes accordingly. Adjust the proportion of food items as well. For example, a sandwich may have too much meat for the amount of bread.
- Consider buying bulk shelled eggs for general cooking and baking if you use more than three cases per week. Not only will you increase your yield (up to 30% of the egg white stays in the shell) but will eliminate broken eggs and lots of cartons to discard.

## Food Service

Depending on the type of restaurant, different opportunities are available to cut food and packaging waste through food service decisions.

- Offer smaller-sized portions at a reduced price, i.e., appetizer-sized versions of entrees.
- Offer a variety of side dishes so that there is something that everyone will like and eat.
- Restock buffets frequently instead of stocking with too much food initially. Stock buffets with smaller portions to reduce plate waste.
- For daily specials, use a chalkboard or dry erase board instead of printing up daily specials menus. Or have wait staff share specials with customers verbally.
- Eliminate the use of garnishes that are discarded after service. Many small, edible garnishes are available.
- Use linen napkins instead of paper. Use reusable bar coasters instead of cocktail napkins. Coasters are often available free from beverage distributors.
- Serve draft beer and fountain soft drinks instead of cans and bottles. This reduces overall costs and reduces waste. One mid-sized restaurant saved more than \$4,000 in one year by switching to draft beer from bottles.
- Purchase bar mixes in concentrate and mix into reusable containers to reduce waste and storage space.
- Use refillable containers for sugar, cream, salt, pepper, ketchup and other condiments.
- Reduce the use of disposable serviceware and consider alternative “take-out” containers such as foil and compostable products.



## Compostable Serviceware

Green Alaska Solutions offers wholesale and retail disposable products made from a variety of renewable resources like potato starch, corn, and rice. These products not only reduce the use of petroleum products necessary to make plastics, but they also are compostable. For information, visit [www.greenwarealaska.com](http://www.greenwarealaska.com) or call 351-4195.

## Cleaning and Disposal

Consider both your cleaning products and methods as well as disposal methods when looking for efficiencies.

- Dye old tablecloths and napkins a different color when they are no longer usable for their original purpose, and use them as rags. Dying is important so that it is clear no one is using good linen napkins to clean the restroom!
- Use reusable cleaning rags instead of paper towels in the kitchen, behind the bar, and for routine cleaning throughout the restaurant; use a linen service to clean rags, as well as aprons and uniforms, or clean in-house if equipment is available.
- Buy cleaners in bulk and concentrate and mix into reusable bottles. Be sure to follow the recommended dilution levels.
- Use roll paper towels in restrooms instead of individual towels. This can reduce towel waste by more than half.
- Place rubber mats in all areas where glassware is handled to reduce breakage.
- Designate a bin for broken glassware to identify how much breakage is taking place.
- Use durable trash bags. Double bagging is wasteful and restaurant waste can be heavy.
- Check for silverware and other durable items before taking out the trash!

### How We Did It

Snow City Cafe negotiated with its landlord to avoid a utilities cost increase by offering to pay for several recycling containers. The recycling reduced the amount of trash generated, reducing trash removal costs for the landlord. Both parties benefited from this creative solution.

Kaladi Brothers Coffee gives its burlap bags from bulk coffee beans to another local company, Arctic Wire Rope and Supply. This company uses the bags to ship out wire and rope products to its customers.

Boulangerie Bakery in Seattle, receives individual Brie cheeses in wrapped wooden boxes. The bakery found a local art school that was thrilled to take the boxes for art projects.

## Recycling and Composting

Food service establishments often have an opportunity to recycle a large majority of the waste stream, including glass bottles, aluminum and steel cans, plastic bottles and jugs, corrugated cardboard, and mixed paper.

- Reduce volumes by installing a cardboard baler if your establishment is large, a can crusher, glass crusher, food pulper, or plastic compactor. Remove both ends of #10 steel cans, flatten the can, and slip ends inside to reduce space and avoid cuts from the lids. Or save one whole can in which to put the lid ends.



- Look at some products to see if they could be purchased in recyclable containers. For example, many syrups and juices come in plastic bottles made of vinyl (#7) but could be found in PET (#1) plastic bottles instead. Also consider purchasing milk products in recyclable HDPE (#2) jugs instead of cartons, which are not recyclable in Anchorage.

- Look for products that can be purchased in containers other than glass, which is currently not being collected for recycling in Anchorage.



- Install recycling bins in convenient areas for all recyclable materials that you generate. Place bins where items are generated, such as bins for plastic bottles and jugs in both the kitchen and the bar area. Steel can bins should be near food prep areas where cans are opened. Don't forget mixed paper bins in offices.
- Collect fryer grease and contact Alaska Waste about collection. Call 563-3717 for details on recycling grease.
- Donate usable unserved foods to food banks and shelters such as the Food Bank of Alaska and Bean's Cafe.
- Consider starting an organics collection program. New composting opportunities may soon be available for businesses in the Anchorage area.
- Investigate recycling pick-up services in Anchorage (see Tip Sheet #3 for more information) and work with them to develop a recycling pick-up system and schedule that works best for you.
- Consider sharing recycling services with other nearby businesses to off-set costs and deal with space issues.

## Energy and Water

Restaurants can be energy intensive in their cooling and cooking needs. Besides the energy efficiency tips provided in Tip Sheets #4-7, here are a few tips specific to restaurant operations.

- Install thermal strips over cooler and freezer doors to keep cold air in. Maintain all seals on coolers and freezers to be sure no gaps are letting cold air out.
- Design walk-ins so that entrances to freezers are inside coolers. This can maximize cooling efficiency of both units.
- Shut down coolers and freezers that are not in use for extended periods of time. During off seasons, food could be consolidated, allowing one or more coolers to be shut down for part of the year.
- Install motion sensors or timers for lighting in walk-in coolers, freezers, hallways, storage closets, restrooms, and low traffic areas. Timers cost about \$12 each and have a typical payback of about a year, depending on the usage area.
- Turn hot water heater down to 130 degrees F; use heat booter on dishwashers to reach necessary temperature.
- Separate hot and cold appliances to increase efficiency.
- Install high-pressure spray nozzles in dishwasher areas with foot pedal controls to reduce water use.
- Cross-utilize equipment. Consider ovens that are steamers and convection ovens in one. If space and energy use are a concern, multi-tasking equipment can save a lot.



- Avoid turning on all lights and appliances all at once, creating a high electricity use peak demand. Stagger turning on appliances, lighting, and HVAC systems as the first shift gets started.

## Outreach and Education

Communicating waste prevention, recycling, and other conservation efforts to numerous employees who may be part-time, may be newcomers, or may not speak the same language, can be a challenge.

- Involve employees in developing programs and implementing ideas. As part of the development, they will feel more ownership of ideas and activities.
- Provide regular training on recycling and other initiatives. Knowing how to do something is half the battle in getting it done.
- Retrain often as staff turns over. Provide feedback and incentives to participate. Let staff know that this is the culture of the establishment.
- Don't forget to include customers by letting them know about the programs you have in place. If public recycling bins are available, provide information about what is recyclable.

## RESOURCES

Alaska Cabaret, Hotel, Restaurant & Retailer's Association (CHARR) [www.alaskacharr.com](http://www.alaskacharr.com)  
800-478-2427 [charr@gci.net](mailto:charr@gci.net)

Bean's Cafe [www.beanscafe.org](http://www.beanscafe.org)  
907-274-9595 [beanscafe@alaska.net](mailto:beanscafe@alaska.net)

Food Bank of Alaska [www.foodbankofalaska.org](http://www.foodbankofalaska.org)  
907-272-3663

Green Restaurant Association  
[www.dinegreen.org](http://www.dinegreen.org)  
(858) 452-7378 [gra@dinegreen.com](mailto:gra@dinegreen.com)

Thimmakka Certified Green Restaurants  
(a S.F. Bay-area program for ethnic restaurants)  
<http://www.thimmakka.org>



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