How to Start a Recycling Program at Your Airport

Airports provide many opportunities for recycling on the go. With increased terminal security, passengers spend more time in airports than ever before and with this extra time, they buy and consume more food and beverages. Passengers and airport personnel generate tons of materials and waste every day, much of which can be recycled.

An airport that implements a recycling program helps make the recycling ethic second nature to people away from home and reduces its environmental footprint in the community it serves.

This fact sheet is written for operations managers, recycling coordinators, and other key decision-makers involved in planning and managing airport operations.

How to Set Up a Recycling Program

The following are the basic steps for setting up a recycling program in your airport:

- Obtain senior management support.
- Designate a recycling coordinator, either by contracting with a recycling specialist or by training an in-house employee.
- Organize a "green team" of employees. For maximum effectiveness, enlist representatives from different areas of the airport (terminals, concessionaires, vendors, offices, retailers, maintenance, custodial, security, and ticketing). These volunteers will work with the recycling coordinator to review the progress of the program and help resolve problems. They also play a crucial education and outreach role. Consider partnering with your local or state environmental agency to gain additional assistance setting up the recycling program.
- Conduct a waste assessment to help identify measures you can take to reduce, reuse, and recycle. Use the *Airport Waste Assessment Questionnaire* on page 5 for guidance. Keep in mind fluctuations in passenger volume, such as during the holiday travel season, that will affect the amount of materials generated in the waste stream.
- Determine which materials will be collected and recycled based on the waste assessment results.
- Ask your current waste hauler if it provides recycling services. When your current waste hauler's contract terminates, consider requiring both waste and recycling services in a new contract. If the current hauler does not offer recycling services, identify potential recycling service contractors. Involve haulers and concessionaires in the recycling program planning process as early as possible.
- Design a collection system and determine whether the recyclables will be collected separately or together (also called commingled). Who will collect the materials? How often? Where will the materials be stored?
- Consider piloting a recycling program in one terminal or office before expanding throughout the airport. This allows you to identify and troubleshoot problems before implementing a wide-scale effort.
- Remember, a successful program hinges on the participation of airport employees, security staff, retailers, concessionaires, vendors, ticket agents, and custodial staff. Ensure they are educated and trained accordingly.

Collection Methods

Decide if the materials will be collected as a single stream or multi-stream. Single stream programs combine all recyclables in one bin to be sorted later at a materials recovery facility (MRF), while multi-stream collection requires that you separate each recyclable material from the start.

Recycling Opportunities at Airports

On page 6 of this fact sheet you will find a matrix that summarizes by source the typical recyclables generated at airports. Consult this matrix as you plan your airport recycling program.

About Collection Bins

- Purchase recycling bins that are similar in size to trash cans, but distinctive (e.g., different colors or shapes).
- Purchase recycling bins that are manufactured with recycled-content materials.
- Label trash cans and recycling bins with both words and pictures/symbols that are clear and concise for international passengers. Be sure each visible side of the collection bin is labeled. Bins with special lids, such as lids with round holes to collect aluminum cans, can reduce contamination—trash and other materials not intended to be collected in that specific bin.
- Place recycling bins next to every trash can or consider using a cluster of collection bins.
- Mitigate the cost of new bins by purchasing models that accommodate advertising.

Managing Your Recyclables

- Consider obtaining a compactor for recyclables from your hauler or purchasing one to maximize storage space and reduce the number of hauler pick-ups.
- Provide concessionaires and retailers with a financial incentive to recycle. If you have central waste and recycling compactors, consider charging them a fee for using the trash compactor but not for the recycling compactor.
- Monitor and evaluate your program to track success, identify problems, and find opportunities for expansion.

Making It Work

- Add recycling practices to your employee and concessionaire policies and procedures.
- Measure and publicize your success. Require recyclers to report the quantities they collect, and then share these successes with employees and the public. Submit press releases to local newspapers and display recycling posters in the terminals.
- Conduct periodic training programs for employees and ask for feedback to further improve the program.
- Also solicit feedback from your tenants, staff, customers, and travelers.

Airport Recycling Examples

Baltimore/Washington International Thurgood Marshall Airport

Recycling at Baltimore/Washington International Thurgood Marshall Airport (BWI) has taken off since its start in 2004, growing from less than 5 percent of waste generated when the program began, to 28 percent in May 2006.

The Maryland Aviation Administration (MAA) initiated the recycling program and credits its success to partnerships among several groups. These include BAA Maryland, Inc. and other airport tenants; Chimes, the recycling collection service; BFI, the hauler and processor; Midpoint International, the container supplier; and Maryland Environmental Service, the technical support contractor.

Recycling collection at BWI consists of 33 recycling containers on the airfield and in cargo areas and 43 recycling containers in the terminal building for passenger and tenant use. Each recycling container in the terminal has designated compartments for trash, newspaper, plastic and glass bottles, and aluminum cans.

BWI began by recycling newspapers, bottles, and cans. It later added corrugated boxes, which account for more than 100 tons of recyclables per month. BWI also collects other paper products, scrap metal, and tires. The recycling program saves approximately $15,000 per year in reduced landfill costs, lower compactor maintenance fees, and revenue from the sale of recyclables that offsets disposal costs.

The MAA hopes to reach a 30 to 40 percent recycling rate using the current system and is relying on employee education and training and tenant responsibility to make it happen.

Buying Recycled

Take your program a step further by "closing the loop"—purchase products made with materials recovered from recycling. If you already buy recycled, consider increasing recycled content. Some examples of recycled-content items are:

- Recycling bins and trash cans
- Office paper and some supplies
- Tissue products
- Toner cartridges
- Corrugated cardboard
- Plastic pallets
- Building materials
- Carpet
- Oil
- Uniform apparel and safety vests

Salt Lake City Department of Airports

The Salt Lake City Department of Airports (SLCDA) is home to a comprehensive recycling program that targets recyclables generated both by the public and in-house. In 2003, the concourse recycling program began by collecting newspaper and plastic from 40 recycling stations throughout the two terminals. In 2005, the SLCDA concourse recycling program diverted approximately 70 tons of plastic and newspaper from the airport waste stream.

Recycling, however, takes place on a much larger scale in the airport's internal operations, such as in offices and behind ticket counters. Approximately 16 tons of cardboard are collected each month, along with varying amounts of electronic waste, concrete, asphalt, scrap metal, motor oil, diesel fuel, vehicle antifreeze, air-conditioning refrigerant, lead/acid batteries, tires, and paint. Plant material is collected for composting, and excavated soil, if suitable for construction fill, is placed in areas where future construction projects are likely to occur.

In addition, every division collects office paper, magazines, paperboard, plastics, newspaper, aluminum, and unwanted mail together in a single stream. Employees receive desk-side recycling boxes that are emptied into a larger central collection point in each office area and collected weekly. Revenue generated from the recycling program is used to offset annual waste collection and disposal costs.

SLCDA evaluates its recycling program periodically to identify opportunities for potential improvement and expansion.

San Diego International Airport

San Diego International Airport (SDIA) implemented a single stream recycling program in July 2002.

The City of San Diego recognized the airport as the *Recycler of the Year* in 2004, the second recognition from the city since the program's inception.

Collection takes place in the terminals and throughout the airport's offices and departments. Fifty collection bins are located throughout the terminals to collect mixed paper, glass bottles,

aluminum and steel cans, and plastic beverage bottles. The amount of materials recycled at the airport increased from 107 tons in 2002 to more than 362 tons in Fiscal Year 2006.

SDIA conducts comprehensive program outreach and education to airport concessionaires, vendors, tenants, and staff. The airport created a handbook, in both Spanish and English, explaining its recycling program. The handbook:

- Introduces employees to the recycling program.
- Describes and promotes single stream recycling.
- Provides program guidelines and recycling facts.
- Explains the benefits of recycling.
- Outlines what can and cannot be recycled through the program.

The *Recycling at San Diego International Airport Handbook* can be found at: <www.san.org/documents/environmental_affairs/recycle_brochure_61204.pdf>.

Also visit the ***Recycle on the Go*** Web site at <www.epa.gov/recycleonthego> for more information and success stories.

Recycle on the GO

EPA is partnering with other federal agencies, states, municipalities, and organizations to promote recycling away from home.

www.epa.gov/recycleonthego

Airport Waste Assessment Questionnaire

Facility Description

- What functional areas are within the airport facility (e.g., ticketing, security gates, arrival and departure gates, baggage claim, corridors, food service areas, retail stores, offices, public information centers, conference rooms, supply areas, mail centers, loading docks, vehicle maintenance areas)?
- How many terminals are in the airport?
- How many functional areas are located in each terminal?
- Where are these areas located? (A floor plan is helpful.)

Passengers

- On average, how many passengers travel through the airport annually?
- On average, how many passengers travel through the airport each day?
- What times of day see the heaviest passenger traffic?
- What times of year (e.g., holidays, seasons) see the heaviest passenger traffic?

Personnel

- How many airport employees and on-site contractors work at the facility?
- Approximately how many employees and on-site contractors work in each terminal?
- Who is responsible for waste management in the facility?
- Who will oversee the recycling program?
- Is there a "green team" of employee volunteers for the facility? If so, who serves on this team and what functional areas do they represent?
- What other individuals will influence or play a role in designing and implementing the recycling program (e.g., concessionaires, vendors, security personnel, airline representatives, janitorial contractor)?

Waste Generation and Flow

- Can you estimate what portion of the waste stream is recyclable (e.g., bottles, cans, corrugated cardboard, newspaper)?
- Where are waste receptacles located (e.g., food service areas, corridors, arrival/departure gates)?
- Describe the types of receptacles used to collect trash (material composition, shape, size, capacity, lid type, color).
- Who collects waste throughout the facility?
- What is the process for handling waste, from emptying receptacles to pick-up by the hauler?
- Who monitors the collection process for waste?
- Is there a staging area? A compactor?
- Who is the waste hauler for the facility? Does this hauler also offer recycling services?
- Is waste pick-up done on a scheduled or as-needed basis?
- Where does the waste go after it is removed from the facility? What is its final destination?
- Does your facility have space that can be designated for aggregating/compacting/staging recyclables?

Metrics

- Does the facility track the weight of waste being removed? If so, how do you arrive at these numbers (e.g., on-site scale, weekly/monthly weight reports from hauler)?
- How far back can you track the weight of waste being removed from the facility?
- What is the airport's annual waste removal cost?

Typical Recyclables Generated at Airports by Source

WHAT \ WHERE	Public Terminals	Ticketing	Security Gates	Food Service Areas	Concessionaires, Retailers, & Car Rental Facilities	Offices	Loading Docks	Maintenance Areas	Baggage Claim	Information Centers	Taxi Stands	Aircraft	Airfield Ramp Areas	Construction & Demolition Areas
Electronics		X	X	X	X	X				X				
Food Waste & Cooking Oil				X										
Pallets							X	X						X
Construction & Demolition Materials*								X					X	X
Organics/ Green Waste								X					X	
Tires								X						
Refrigerant				X	X			X						
Antifreeze								X						
Motor Oil								X						
Scrap Metal								X						X
Batteries						X		X						
Toner Cartridges		X			X	X	X	X						
Corrugated Cardboard				X	X		X	X				X		
Mixed Paper	X	X	X	X	X	X			X	X		X		
Newspaper	X	X	X	X	X	X			X	X	X	X		
Glass	X	X	X	X	X	X			X	X	X	X		
Aluminum Cans	X	X	X	X	X	X			X	X	X	X		
Plastic Beverage Bottles	X	X	X	X	X	X			X	X	X	X		

* Includes wood, asphalt, and concrete.