

APPENDIX E: RECYCLING & SOLID WASTE

Introduction

In the FAA Modernization and Reform Act of 2012 (Public Law 112-95), the Airport Improvement Program language was amended (49 USC Section 47106(a)) to include the evaluation of airport solid waste recycling. The change stipulates that the following issues will be addressed:

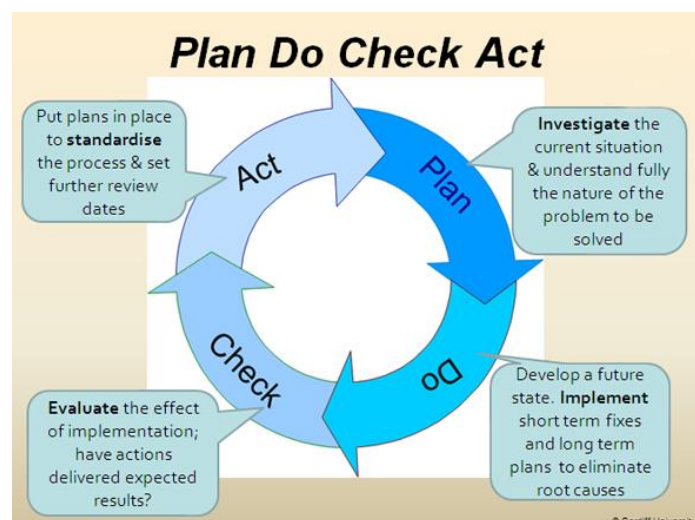
- Feasibility of Solid Waste Recycling at the Airport,
- Minimizing the Generation of Solid Waste at the Airport,
- Operation and Maintenance Requirements Related to Solid Waste,
- Review of Waste Management Contracts, and
- Potential Cost Savings or Generation of Revenue from Solid Waste Recycling.

To accomplish these objectives this appendix will include:

- Examination of Existing Solid Waste Handling and Recycling
 - Existing Practices including Operations and Maintenance Issues
 - Existing Waste Management Contracts
- Examination of Recycling Opportunities
- Alternatives to Minimize Generation of Solid Waste and
- Cost Savings/Revenue Potential from Recycling

The FAA released a memorandum on September 30, 2014 titled *Guidance on Airport Recycling, Reuse, and Waste Reduction Plans* that provides technical guidance on preparing airport recycling plans. The FAA also published *Recycling, Reuse and Waste Reduction at Airports – A Synthesis Document* on April 24, 2013. Please note, a Solid Waste Recycling plan is one element of an Environmental Management System (EMS). This appendix will not address all elements of an EMS but information regarding an EMS can be found in FAA AC 150/5050-8, *Environmental Management Systems for Airport Sponsors*. The EMS concept follows the “Plan, Do, Check, Act” model which will also be the way the Solid Waste Recycling can be continually evaluated and improved.

The content and scope of a solid waste recycling plan can vary based upon availability of information and the unique environment at every airport. This appendix represents a baseline review of existing practices and opportunities. A comprehensive analysis of components such as quantity and composition of waste, program performance, and financial analysis would be completed during a waste audit.



Existing Solid Waste Handling & Recycling

There are four types of waste typically generated at an airport. These are: 1) Municipal Solid Waste, 2) Construction/Demolition Waste, 3) Compostable Waste, and 4) Deplaned Waste. These are further described in **Table 1**.

Table 1 – Waste Types

Waste Type	Description
Municipal Solid (MSW)	Consists of everyday items that are used and discarded. Recyclable MSW at airports includes, but is not limited to, aluminum and steel, glass bottles and containers, plastic bottles and containers, packaging, bags, paper products, and cardboard.
Construction /Demolition (C&D)	Generally categorized as MSW. C&D debris is any non-hazardous solid waste that results from land clearing, excavation, or construction, demolition, renovation, or repair of structures, roads, and utilities. C&D debris includes, but is not limited to, concrete, wood, metals, soil, bricks and masonry material, asphalt, rock, stone, gravel, sand, roofing materials, drywall, carpet, plastic, pipe, rocks, earthwork, land-clearing debris, cardboard, and salvaged building components. In some instances, C&D debris requires special handling and may be subject to special requirements. Examples include tar-impregnated roofing materials and asbestos- containing building materials.
Compostable Waste	Generally categorized as MSW. They are sometimes referred to as green waste and food waste. Green waste consists of tree, shrub, and grass clippings, leaves, weeds, small branches, seeds, pods, and similar debris generated by landscape maintenance activities. Food waste is food that is not consumed, or generated during food preparation activities and discarded.
Deplaned Waste	A type of MSW removed from passenger aircraft. These materials include bottles and cans, newspaper and mixed paper, plastic cups and utensils, food waste, food-soiled paper, magazines, unconsumed or surplus food, and paper towels.

Source: [FAA Guidance on Airport Recycling, Reuse and Waste Reduction Plans](#), September 30th, 2014

Existing Practices

In the terminal/hangar area, custodial services are conducted by each tenant. This includes the public areas as well as individual leased space, and areas around the terminal/hangars. Tenants either dispose of the trash at the airport or take the trash off site to dispose with their home’s residential garbage.

Existing Waste Management Contracts

The disposal of waste is a specialized service not regularly performed by airports. For the Laurel Municipal Airport, the municipal solid waste is handled by the City of Laurel. There is no special handling for cardboard, grease, filters, petroleum, and others. All the solid waste collectors that collect trash from the airport are listed in **Table 2** Waste Management Contracts.

Table 2 – Waste Types

Contractor	Type of Waste	Container Size/Locations	Collection Frequency	Tenant(s)
City of Laurel	Municipal Solid Waste	2 yard/south of FBO Hangar	Weekly	All

Source: *Airport Staff & Tenants*

Airport Efforts to Minimizing the Generation of Solid Waste

There is limited solid waste produced at the airport and have been no recognized need to minimize the solid waste. All grass at the airport is mulched (in place). When construction projects occur, any debris that can be reused in the project such as recycled pavement is reused when possible.

Recycling Opportunities

The first option for airports regarding recyclables depends upon private/public parties that accept certain types of recyclable material in the nearby area. **Table 3** lists the entities that exist in the surrounding area that accept certain types of recyclable materials.

Table 3 – Area Recyclers

Contractor	Type of Waste	Location(s)	Collection or Drop Off	Revenue Potential
Earth First Aid	Metal, Cardboard, Paper, Glass, Plastic	458 Charles Street Billings	Collection & Drop Off	Minimal
Republic Services	Metal, Cardboard, Paper, Plastic	458 Charles Street Billings	Collection & Drop Off	Minimal
Pacific Steel & Recycling	Metals	777 4 th Avenue North Billings	Drop Off	Minimal
Emerald Services	Oil	1560 Coulson Rd. Billings	Drop Off	Minimal

Source: Airport Staff & Tenants

Alternatives to Minimize Solid Waste Generation

The common theme for this is “Reduce, Reuse, Recycle”. This is more than marketing. It is promoting, incentivizing, and eliminating barriers to enable ‘reduce, reuse, recycle’ to be common practice. The recyclers in Table 3 can be contacted by individual tenants to arrange disposal.

Also, the City of Laurel has a container site for trash and recyclable northwest of the airport on Buffalo Trail Road. If there is sufficient volume of particular recyclables they can be conveniently dropped off there so the materials do not end up just being landfilled.



Cost Savings/Revenue Potential from Recycling

The potential for cost savings or revenue potential is dependent upon the value of the recycled commodity in the market, the volume of the waste type generated and the ability to manage the waste collection to prevent contamination.

There is little volume of trash or recyclables to either save on disposal costs or provide revenue for the airport or tenants from recyclables.