



# **APPENDIX D**

## **AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN**



## **AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN**

The Federal Aviation Administration (FAA) issued a memorandum on September 30, 2014 to provide guidance on preparing airport recycling, reuse, and waste reduction plans as an element of a master plan, master plan update, within a sustainability document, or as a standalone document. The guidance is mandatory when preparing a master plan or update.

The purpose of this document is to review the Central Colorado Regional Airport's (AEJ or Airport) recycling, reuse, and waste program and provide guidance on ways to reduce waste and improve recycling and reuse at the facility as part of the Master Plan in compliance with the FAA's memorandum. This document serves to meet that requirement and will:

- Review existing practices and solid waste sources (waste audit)
- Review the feasibility of solid waste recycling at the Airport
- Summarize operation and maintenance (O&M) requirements
- Review waste management contracts
- Identify potential cost savings or revenue generation
- Provide recommendation to minimize solid waste generation

### **FACILITY DESCRIPTION AND BACKGROUND**

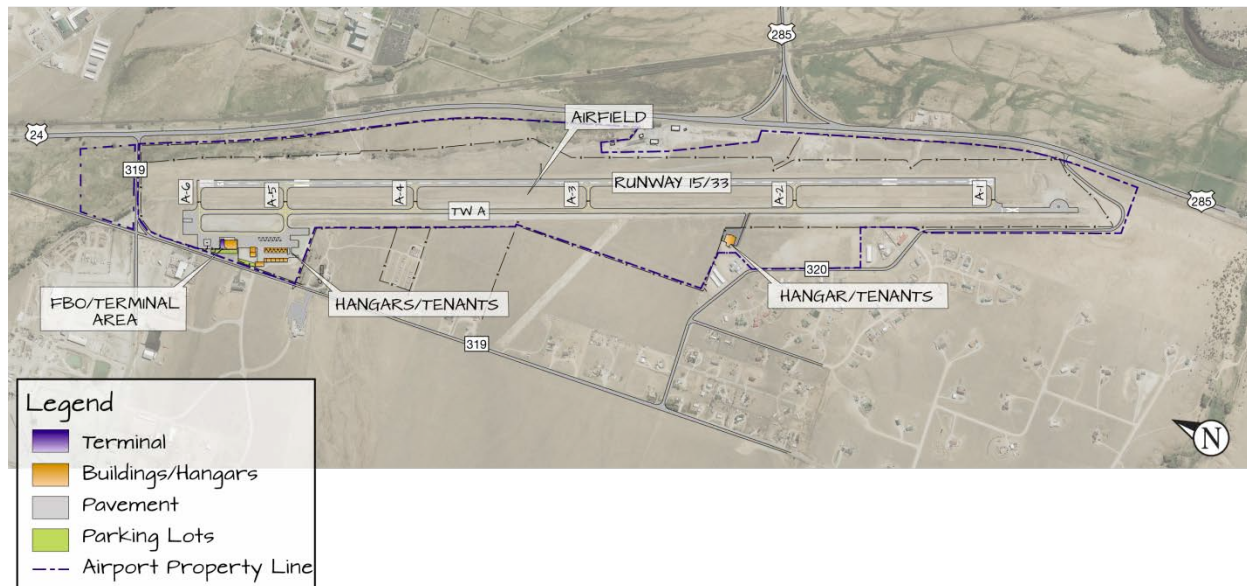
AEJ is located in the Upper Arkansas River Valley in Colorado, approximately two miles south of the Central Business District (CBD) of Buena Vista. AEJ is owned by the Town of Buena Vista and overseen by the Buena Vista Airport Authority Board. Additional facility information is in Chapter 1, Introduction and Chapter 2, Inventory of the Master Plan.

The Airport is a key asset for the viability and economic health of Buena Vista as well as neighboring towns throughout the Arkansas River Valley. AEJ has seen significant fluctuations in aircraft operations and based aircraft, as described in Chapter 3, Forecast of Aviation Activity. AEJ had approximately 4,392 operations and 28 based aircraft in 2015. It is forecasted that in 2035 AEJ will have approximately 6,859 operations and 50 based aircraft.

## Existing Waste Sources

The identification and evaluation of airport waste sources can be complicated. There are many different groups, agreements, operational styles, and collection/disposal processes that play into the overall generation of waste. AEJ airport management identified three primary sources of waste: the FBO/Terminal Area, Hangars/Tenants, and the Airfield. See **Figure 1** for each area's location. Of these three sources, the FBO/Terminal Area was found to produce the most solid waste.

FIGURE 1 - SOURCES OF WASTE



Source: AEJ Airport Management and Aviation, Inc.

The sources of waste, per the FAA September 30, 2014 memo, can be further broken down by how much control the airport has on the generation and disposal of waste. The three levels of control are:

1. Areas where the airport has *direct control* of waste management (public space, office space, terminal building, airfield). These areas are controlled by the airport and they are able to introduce recycling, reuse, and waste reduction programs directly.
2. Areas where the airport has *no direct control* but can *influence* waste management (tenants). These are areas owned by the airport; however, they are leased out to tenants. The airport can recommend that recycling, reuse, and waste reduction programs be used and can include language in the tenant contracts, but realistically can't control what is done.



3. Areas where the airport has *no control* or *influence* over waste management. These are areas the airport neither owns or leases (none of which are included in this chapter).

**Table 1** shows the identified areas of waste generation, what waste is generated, how the waste is collected, if any reduction and/or recycling programs are in place, and AEJ's level of control.

TABLE 1 - WASTE GENERATION AREAS

<b>Area</b>	<b>Waste Generated</b>	<b>Current Solid Waste Collection</b>	<b>Current Waste Reduction/Recycling</b>	<b>Control</b>
<b>Area 1: FBO/Terminal Area</b>	Plastic, glass, aluminum, oil, batteries, trash	Trash and recyclables collected and delivered to Buena Vista waste facilities and Recycling Centers.	Use of Buena Vista Recycling Centers. Oil collected and taken to NAPA Automotive for recycling.	Direct
<b>Area 2: Hangars/Tenants</b>	Plastic, glass, aluminum, oil, batteries, trash	Hangar trash and recyclables collected and delivered to Buena Vista waste facilities and Recycling Centers.	Use of Buena Vista Recycling Centers. Oil collected and taken to NAPA Automotive for recycling.	Direct
<b>Area 3: Airfield</b>	General debris found on airfield. Construction material (asphalt, concrete, wood, metal)	Collected by staff, unusable waste deposited into AEJ dumpsters.	Excavated dirt is reused on airport property	Direct Control

Source: Central Colorado Regional Airport staff and Jviation

### Current Waste Management Programs

The existing recycling and waste reduction programs are limited in Chaffee County and the Town of Buena Vista. However, there are several recycling centers open to the public including<sup>1</sup>:

- Angel of Shavano Recycling (located in Salida)
- Salida Hot Springs Pool (located in Salida)
- Chaffee County Landfill & Recycling Center (located in Salida)
- B.V. Recycling Center (located in Buena Vista)
- High Valley Center (located in Poncha Springs)
- Pak-Mail (located in Salida)

<sup>1</sup> Chaffee County, Colorado, <http://www.chaffeecounty.org/Landfill-Recycling-Locations>, Accessed August, 2015.



Cumulatively, the above-mentioned centers collect newspaper, aluminum/tin cans, brown paper bags, empty aerosol cans, clear/green/brown glass, cardboard, office paper, paperboard, magazines, plastic (#1-7), motor oil, batteries, metal, computers, copiers, printers, and other electronics<sup>2</sup>.

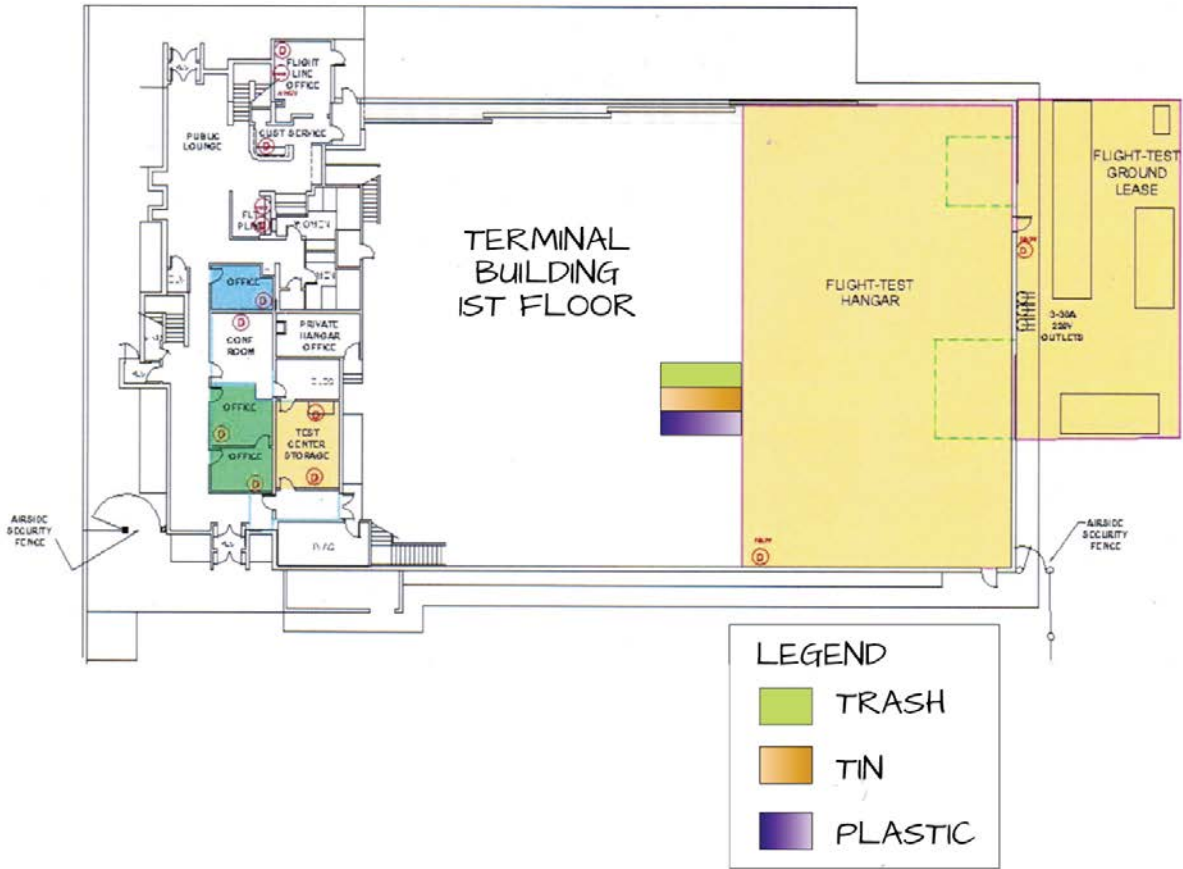
### **Central Colorado Regional Airport**

AEJ is actively involved in recycling and strives to make recycling easy for its visitors, tenants, and staff. As shown in **Figure 2**, the Airport provides four trash and recycling bins throughout the FBO/Terminal. The Airport collects a variety of items including oil, plastic, paper, aluminum, and glass. These items are collected by staff and taken to the Buena Vista Recycling Center. In addition, AEJ also collects used oil for recycling (taken to NAPA Automotive). Oil can also be deposited in the oil drum located near the fuel tanks, which is hauled to the local CARQUEST Auto Parts for disposal.

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<sup>2</sup> Chaffee County, Colorado, <http://chaffeecountywaste.com/recycling/>, Accessed September, 2015.

FIGURE 2 - TRASH AND RECYCLING BIN LOCATIONS



Source: AEJ Airport Management and Aviation, Inc.



## **REVIEW OF RECYCLING FEASIBILITY**

Currently, AEJ participates in a basic recycling program. They provide trash and recycling bins throughout the FBO/Terminal area and allow tenants to participate in the recycling program if they desire. Challenges identified with the current program are:

- Visitors are uneducated on what materials can and cannot be recycled
- AEJ does not require tenants to have recycling containers in place or to participate in airport initiatives

The Airport recognizes these challenges and plans to post education material near recycling bins notifying visitors what items can be recycled. The Airport also plans to encourage tenants to participate in their recycling program.

## **OPERATION AND MAINTENANCE REQUIREMENTS**

The operations staff is currently responsible for the collection and disposal of all waste throughout the Airport. The recyclables are collected and sorted by airport operations staff, who then takes the recyclables to the Public Works department. The staff also evaluates the recyclables for contamination.

## **REVIEW OF WASTE MANAGEMENT CONTRACTS**

AEJ does not currently have any private contracts in place to collect and remove recyclables. The staff is responsible for the collection of recyclables and also hauls it off airport property.

Contracts with existing tenants do not require tenants to participate in any recycling programs or provide recycling bins for customers and employees. It is recommended that AEJ add language to future contracts that requires tenants to provide recycling bins and participate in the city's program.

## **POTENTIAL FOR COST SAVINGS OR REVENUE GENERATIONS**

AEJ does not rent any recycling bins or dumpsters, nor do they pay anyone to collect and handle their recyclables. Therefore, they are saving money at the forefront of their recycling plan. However, as the amount of recyclable material and waste increases, additional costs may be associated with removal. As such, the best way to reduce waste while also minimizing costs would be to reduce the amount of waste generated and keep as much material on-airport as possible. This is best achieved by reusing materials when



possible (including airfield construction material) and educating staff, tenants, and contractors on ways to reduce the amount of waste they generate.

## **PLAN TO MINIMIZE SOLID WASTE GENERATION**

AEJ voluntarily participates in a recycling program; however, the Airport is aware that their recycling, reuse, and waste reduction program can be improved through a few simple practices such as:

- Provide adequate signage with recycling bins clearly showing type of materials accepted.
- Provide educational material to tenants and airport employees on what material should be recycled and the appropriate business contacts.
- Add recycling, reuse, and reduce waste objectives to future tenant leases.
- When feasible, purchase products made from recycled material and encourage tenants to do so as well.

The above-mentioned practices are relatively basic; however, the success of implementing a long-term recycling, reuse, and waste reduction program requires management buy-in, staff commitment, planning, and follow-up. **Figure 3** outlines “10 Steps to Design and Implement an Effective Airport Recycling/Waste Minimization Program” as recommended by the FAA in their *Recycling, Reuse and Waste Reduction at Airports – A Synthesis Document*<sup>3</sup>. AEJ should follow these steps when implementing their recycling program.

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<sup>3</sup> FAA, Recycling, Reuse and Waste Reduction at Airport – A Synthesis Document, 2013



FIGURE 3 - 10 STEPS TO DESIGN AND IMPLEMENT RECYCLING PROGRAM

- | <b>10 Steps to Design and Implement<br/>an Effective Airport<br/>Recycling/Waste Minimization<br/>Program</b> |
|---|
| <b>1. Commitment from Management</b>  |
| <b>2. Program Leadership</b>  |
| <b>3. Waste Identification</b>  |
| <b>4. Waste Collection and Hauler</b>   |
| <b>5. Waste Management Plan<br/>Development</b>   |
| <b>6. Education and Outreach</b>  |
| <b>7. Monitor and Refine</b>  |
| <b>8. Performance Monitoring</b>  |
| <b>9. Promote Success</b>   |
| <b>10. Continuous Improvements</b>  |

Source: FAA, Recycling, Reuse and Waste Reduction at Airport – A Synthesis Document, 2013

## CONCLUSION

AEJ has a basic recycling program in place; however, with minimal effort and expense they could implement some very basic procedures to improve their program and reduce the amount of solid waste they generate. Through coordination with local entities, AEJ could play a more active role in recycling, reusing, and reducing solid waste.