

Auburn



California

Auburn Municipal Airport Master Plan

2024

APPENDIX B
RECYCLING AND SOLID
WASTE MANAGEMENT PLAN

MAY 2025

APPENDIX B

RECYCLING AND SOLID WASTE MANAGEMENT PLAN

INTRODUCTION

This appendix outlines the recycling and solid waste management strategy (herein referred to as the Waste Plan or the Plan) for the Auburn Municipal Airport (AUN or the Airport) Airport Master Plan (AMP). The Federal Aviation Administration (FAA) mandates that all airports developing an AMP or receiving Airport Improvement Program (AIP) funds must prepare a Waste Management Plan. Accordingly, this Waste Plan satisfies the requirements for airport recycling, reuse, and waste reduction as stipulated by the FAA Modernization and Reauthorization Act of 2012 and its associated guidance. AUN is situated within Placer County, which has implemented an innovative waste management system that utilizes a single bin for the collection of nonhazardous solid waste and recyclables. This system enables all airport users to participate in recycling, as the sorting process is conducted at the waste handling facilities. This waste plan has been developed to account for the existing advanced recycling and waste collection system.

AIRPORT INFORMATION

Information including AUN's location, layout, classification, and governance structure are described in **Chapter 1- Inventory of Existing Conditions**. Data such as operations and based aircraft are detailed in **Chapter 2- Forecasts of Aviation Activity**.

Waste Plan Scope

Municipal Solid Waste (MSW) consists of everyday items that are used and then discarded. The Plan focuses on the management of MSW and other materials that may be recycled or otherwise removed from the waste stream. There are four primary types of MSW generated at airports:

- ▶ **General MSW** - Common inorganic waste such as plastic bottles, aluminum cans, glass, paper, and cardboard.
- ▶ **Construction and Demolition (C&D) waste** - Includes items such as concrete & masonry, lumber, metals, drywall, carpet, and pipes.
- ▶ **Compostables** - Green waste such as lawn clippings, leaves, or food waste from uneaten or discarded food.

- **Deplaned waste** - Waste removed from passenger aircraft. This type of waste is not applicable to this Waste Plan.

This Plan does not cover the management of waste types regulated by federal, state, or local laws, such as hazardous, universal, industrial, or international waste. However, the Airport will work with the local waste hauler to properly dispose of hazardous materials as needed.

AUN has varying degrees of control over waste management practices. Certain areas fall under the direct control of the Airport and its staff, including public spaces and offices. Other areas can be influenced but not directly controlled, including leased areas and private hangars. Applicable FAA guidance states areas under direct AUN control or influence must be included in the plan, and areas outside the Airport's control may be excluded from the Plan.¹

Table A-1 lists the areas controlled or influenced by AUN. There are currently no areas of the Airport that are outside its sphere of control or influence.

Table A-1: AUN Waste Management Areas

Management Level	Description
Areas under direct control	Terminal Building
	Flight School Facilities
	Aircraft Maintenance Facilities
	Fixed Based Operator (FBO)
Areas under influence	Concessionaires
	General Aviation (GA) Hangar Tenants

CURRENT WASTE MANAGEMENT PROGRAM

AUN's waste program consists of regularly scheduled waste and recycling collection through the Airport's waste hauler, Recology. The Airport primarily uses a one-bin-system, where all recycling and waste streams are comingled. Waste is collected by Recology and taken to a sorting facility where various types of waste, recyclables, and compostable material are separated and processed. Additionally, the Airport has a cardboard only dumpster which increases total cardboard diversion from Airport operations.

Operation and Maintenance Requirements

AUN's waste program, including infrastructure placement and direct communication with the waste hauler, is managed by Airport staff. Housekeeping in the terminal building is managed by Airport staff.

Recology regularly empties each of the Airport's dumpsters each week. Bin contents are transferred to a sorting facility to process and separate waste from recyclables and compostable materials. Post-processed waste is transferred to the local landfill.

¹ Guidance on Airport Recycling, Reuse, and Waste Reduction Plans, 6(2)

AUN's tenants are responsible for individual housekeeping and waste removal from leased areas, and all construction and demolition (C&D) waste disposal is currently the responsibility of the performing contractor.

Review of Recycling Feasibility

The following paragraphs analyze several factors that influence the feasibility of recycling and waste diversion strategies at the Airport.

Federal

The Environmental Protection Agency (EPA) is responsible for developing a solid waste management program under the Resource Conservation and Recovery Act (RCRA) and its related polices. RCRA provides the framework for the management of hazardous and non-hazardous waste. All generators of hazardous waste, including airports, are required to comply with RCRA and all other federal waste laws and regulations. The EPA also developed the Non-Hazardous Materials and Waste Management Hierarchy for all other entities, and identified four waste management strategies in order from most to least preferred:

- ▶ **Source Reduction and Reuse** - Reducing waste at the source before it ever enters the waste stream.
- ▶ **Recycling and Composting** - Sorting and processing materials into raw materials or new products.
- ▶ **Energy Recovery** - Converting non-recyclable waste into heat, electricity, or fuel.
- ▶ **Treatment and Disposal** - Minimizing waste before ultimate disposal, such as shredding, incinerating, or anaerobic digesting.

Additionally, the FAA's definition of airport planning requires planning for recycling waste and minimization under airport master plans.

State

The California Integrated Waste Management Act of 1989 required cities, counties, and regional agencies to create a source reduction and recycling element in their waste management plans, including components for source reduction, recycling, and composting.

California Assembly Bill 341, which was enacted in 2012 and expanded upon the Act of 1989, mandated a statewide commercial recycling program. The bill requires businesses and multi-unit residential buildings in the state of California generating 4 cubic yards or more of weekly MSW to develop an integrated waste management plan, submit annual reports which detail compliance with existing laws, and provide receptacles, signage, education, and staffing for recycling. The bill also requires recycling of organic waste, including food, food paper, and yard debris.

Senate Bill 1383 (SB 1383), passed in 2019, further expanded requirements for organic waste recycling in California. SB 1383 requires every city in the state of California to provide organic waste infrastructure and collection for residents and businesses.






Additionally, California's Green Building Code Standards establish a waste diversion requirement mandating that all new projects must divert a minimum of 65 percent of C&D materials generated on the project site.

Local

Waste management in Placer County is maintained by the Western Placer Waste Management Authority (WPWMA). The WPWMA is responsible for both landfilling waste and managing recycling services in Placer County. They operate a Materials Recovery Facility (MRF) where mixed waste is sorted to recover recyclable materials. The closest landfill to Auburn Municipal Airport (AUN) is the Western Regional Sanitary Landfill (WRSL), located approximately 15 miles southwest of the airport.

Waste and recycling efforts in the City of Auburn is coordinated through the City's Environmental Services Division, and the waste hauler, Recology. They handle garbage collection, recycling programs, and yard waste services for residential users. All waste collected by Recology is comingled and sorted at the MRF, and non-recyclable materials are sent to the WRSL. In addition to waste and recycling, residents and businesses in the City of Auburn are required to recycle organic waste, in accordance with SB 1383. The City of Auburn provides residents with a designated organics recycling bin, which is collected on a weekly basis. Organics are collected by Recology and sent to the MRF for processing. Recyclable materials locally accepted at the MRF are shown in **Figure A-2**.

Figure A-2: Materials Accepted for Recycling

Accepted for both Residential & Business Recycling				
				
Cans	Cartons	Glass	Paper	Plastic

Drivers and Constraints

Many factors can impact waste diversion feasibility at an airport. These include opportunities for growth, such as local commitments to environmental sustainability, or challenges to implementation, such as the availability of region-wide recycling infrastructure.

Airport Policy, Commitment, and Support

AUN staff are agreeable to expanding the Airport's existing waste and recycling program where feasible. It is viewed as a genuine service to the community, particularly when considering the counties extensive recycling support.

Local Dedications

Placer County partners with the City of Auburn to operate the City of Auburn/Placer County Materials Recycling Facility (MRF). Both the County and City support the State recycling initiatives of waste diversion, responsible waste management, and sustainable operations. Based on the availability of residential and

commercial recycling, this Plan assumes the residents of the communities surrounding AUN, and therefore, its employees and visitors have been exposed to recycling, receive ongoing message about its importance, and are supportive of recycling efforts.

Local Markets, Logistics, and Infrastructure

Markets for recycled materials fluctuate based on many factors and interactions. Local waste haulers accept materials that can be recycled cost-effectively in the area; however, rebates are not lucrative without significant volume and minimal contamination. Recycling facilities are discriminatory about what materials they accept, and often unilaterally prefer materials that are of high value, clean, and easy to separate. It is an industry best practice to collect recyclable materials in dumpsters and bins without the use of bags, as bags can jam the automated recycling machines in use by most facilities.

Recyclable material in Auburn County is collected at the City of Auburn MRF, where the material can be effectively separated and shipped to market for reprocessing and manufacturing. Only loose, unbagged recyclable material is accepted at the facility.

Cost

AUN has an arrangement with 1Recology, which includes a sorting facility located on airport property. Due to this relationship, the waste hauling services are covered under the franchise agreement with the hauler and incur no cost to the Airport.

Conditions for Re-Evaluation

Waste management needs change in tandem with Airport needs. Future changes to the Airport, such as a significant increase in airport tenants or facilities, would provide opportunities for AUN to re-evaluate the Plan and its performance.

Review Waste Contracts and Tenant Leases






















The FAA memorandum titled “Guidance on Airport Recycling, Reuse, and Waste Reduction Plans” explains that the purpose of reviewing waste management contracts is to “identify opportunities for improving the waste program scope and efficiency, as well as identify constraints.” By reviewing contracts and tenant leases to include language pertaining to waste management practices, the Plan may appropriately identify opportunities to encourage responsible waste management for all levels of Airport activity.

A review of the current contracts and tenant leases has been conducted as part of this Plan. These contracts outline housekeeping requirements and waste management expectations, specifying that tenants are responsible for the removal of trash within their leased areas. Given the single-bin recycling system in place at the Airport, there is limited need for extensive language to ensure compliance with the Airport’s recycling and sustainable waste management practices. As a result, no updates to the waste management contracts or tenant lease language are necessary currently.

RECOMMENDATIONS

The following recommendations have been developed to improve waste management at AUN, and include waste reduction, material reuse, and recycling strategies. **Table A-2** details the evaluation criteria for each recommendation.

Table A-2: Evaluation Criteria

Item	Icons	Significance
Relative Cost	  	Low
	  	Medium
	  	High
Estimated Diversion	  	Low
	  	Medium
	  	High
Benefits		Environmentally conscious
		Cost effective
		Community centric

The evaluation criteria provide waste management recommendations to enhance Airport practices through waste reduction, reuse, and recycling. Each recommendation is categorized by significance, cost, estimated diversion, and benefits. This helps assess feasibility and impact to ensure effective waste management at the Airport.

Recommendation 1: Maximize Infrastructure, Reduce, and Reuse

Relative Cost



Estimated Diversion



Benefits



Description

As determined by the Environmental Protection Agency (EPA), waste reduction is the most environmentally preferred waste management strategy. Reduction and reuse simultaneously lower waste program costs by eliminating items from the waste stream. AUN staff purchasing practices may unknowingly generate waste in the form of single-use materials, disposable items, or both.



Eliminating waste before it enters the waste stream is always the most effective waste reduction strategy.

Action

It is recommended that AUN continue to integrate waste diversion practices into existing policies and operations by working with their current waste hauler. Continuing to identify areas of improvement such as installing dumpsters for materials generated in excess at the Airport. A purchasing policy may be adopted to minimize disposable items and maximize materials that are reusable, recyclable, compostable, or made from recycled content. Materials that can be avoided, reused on-site, or donated should also be identified.

Objectives

- ▶ Identify sources of waste and promote strategies to avoid, reduce, reuse, or otherwise divert non-waste materials from the waste stream.
- ▶ Substitute single-use or disposable items for reusable alternatives, such as AUN-branded beverage containers.
- ▶ Replace practices that generate waste, such as double-sided printing with digital delivery methods in document production.
- ▶ Encourage diversion by visitors, tenants, and contractors through educational signage.
- ▶ Install additional water bottle filling stations that are readily visible to visitors, encouraging reuse.
- ▶ Consider separate streams for materials subject to handling requirements, such as e-waste or cooking oil.

Recommendation 2: Enhance Existing Programs

Relative Cost



Estimated Diversion



Benefits



Description

Enhancing waste management programs can be achieved through a combination of resource efficiency, waste-to-energy solutions, and extended contractor responsibility. Resource optimization can reduce environmental impact and operational costs. Waste-to-energy solutions convert non-recyclable waste into a renewable energy source, which can be used to further decrease operational costs. Extended contractor responsibility ensures compliance with waste management practices, further promoting sustainability.

Action

It is recommended that AUN continue to enhance its existing waste management program and partnership with local waste management entities by exploring a combination of resource efficiency initiatives, extended contractor responsibilities, and considering waste-to-energy solutions.

Objectives

- ▶ Perform material audits to identify areas for reducing resource consumption across operations.
- ▶ Consider waste-to-energy solutions that further decrease landfilled waste and increase energy resilience and independence at the Airport.
- ▶ Implement resource-efficient policies for operations and tenants, prioritizing recyclable, reusable, and compostable materials.
- ▶ Strengthen contractor responsibility through measurable C&D waste reduction targets through incentives tied to waste output.
- ▶ Develop educational campaigns to communicate information about recycling and the waste management program to staff, tenants, and visitors.
- ▶ Monitor and adjust the program using feedback from tenants, staff, and visitors.



Recommendation 3: Promote Education and Outreach

Relative Cost



Estimated Diversion



Benefits



Description

Educational and outreach campaigns serve as a major tool for airports to spread awareness and galvanize support for a waste management program. The outreach program should include clearly defined goals and objectives, such as a target audience, Airport goals, and alignment with other local initiatives. It should also clearly identify where educational materials may be found.



Action

It is recommended that that AUN develop an educational and public outreach campaign encouraging recycling, composting, and various waste diversion strategies. Educational items should be placed in high-traffic areas, and leveraging social media will extend the reach of the campaign. A separate campaign should target AUN staff, establishing firm operational guidelines for material deposit locations and routine standards for each material stream.

Objectives

- ▶ Establish primary goals, a key message, a target audience, and a communication vector for every campaign.
- ▶ Create operational standards for AUN staff, including deposit locations and material stream standards.
- ▶ Encourage tenant participation in campaign efforts, such as recognizing top contributors and program updates in communications with Airport users.
- ▶ Educate the public on reducing waste, recycling correctly, and identifying compostable materials.
- ▶ Identify possible future needs, such as new waste infrastructure (additional compactors, material-specific dumpsters, etc.).
- ▶ Monitor and adjust waste program using feedback from tenants, staff, and visitors.

Recommendation 4: Integrate Data Tracking & Reporting

Relative Cost



Estimated Diversion



Benefits



Description

Monitoring waste and recycling provides feedback on the efficiency of the waste program and diversion efforts. Sharing this information with stakeholders has been shown to increase participation in diversion practices.



Action

It is recommend that AUN regularly track the volume of waste that is landfilled, diverted, or recycled. This may be done in collaboration with the Airport's waste hauler and include estimating the cost associated with waste and recycling collection services. It is also recommended that AUN share this information with program stakeholders (AUN staff and tenants) and the waste hauler.

Objectives

- ▶ Perform a waste characterization study or waste audit in collaboration with the waste hauler, examining waste stream composition, contamination, and areas of improvement.
- ▶ Collaborate with waste hauler to measure AUN waste volumes and produce regular data reports onm the amount of waste generated at the Airport.
- ▶ Obtain invoices from the waste hauler and the City of Auburn.
- ▶ Evaluate data for additional opportunities to set and pursue waste diversion goals.
- ▶ Routinely share progress with stakeholders.