APPENDIX B -
RECYCLING PLAN

INTRODUCTION

Guided by the desire to be a sustainable, positive steward of the environment and the local community, the City of Salem (the City) is striving to implement strategies related to economic viability, operational efficiency, natural resource conservation, and social responsibility at Salem Municipal Airport – McNary Field (SLE or the Airport). In accordance with the Federal Aviation Administration (FAA) Modernization and Reauthorization Act of 2012 (FMRA) requirements, an airport's master plan must include considerations related to airport solid waste and recycling. In support of the priorities of the City and in compliance with the FMRA requirements, the City is developing this Airport Recycling Plan (the Plan) for SLE.

SLE currently follows the City's recycling program, which includes recycling and disposal of several materials in Airport buildings and other areas on Airport property that are under the control of the City. Airport stakeholders also practice recycling and other waste reduction strategies in areas that they lease or operate. Based on facility walk-throughs, a visual waste composition study, interviews with SLE staff, and discussions with various Airport tenants, existing practices were documented and potential opportunities to increase waste diversion – the concept of avoiding and/or managing waste to evade landfill disposal – were identified.

This information, in combination with information about internal and external factors, formed the basis for key recommendations in the plan to improve waste management at SLE. **Attachment B-1** details site visit observations and serves as a quick reference guide for initial steps to address waste diversion in each physical area and department of the Airport.

A waste reduction plan highlights several overarching recommendations including:

- Establishing waste diversion goals and objectives.
- Introducing, improving, and expanding waste diversion practices airport-wide.
- Tracking waste generation to eliminate it at the source.
- Educating employees, tenants, and contractors on waste diversion.
- Improving contracts, leases, and purchasing policies.

This range of recommendations gives the City and program stakeholders the flexibility to implement strategies that are most compatible with changing conditions and available resources (such as labor and space) while progressively increasing landfill diversion over time through a phased program of waste reduction, reuse, and recycling.

The existing program at SLE generates approximately 20.65 tons of landfill-bound waste annually, as well as an additional 3.75 tons of comingled recycling. The following key recommended strategies have the near-term potential to divert at least 5 tons of general materials from the landfill per year.
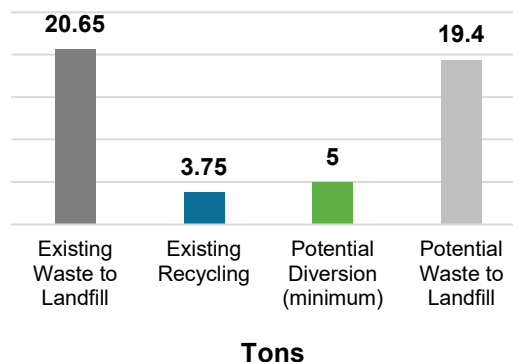
SLE can reduce waste generation and increase landfill diversion by:

▸ Integrating waste diversion practices into airport operations.

▸ Reviewing and updating purchasing to reduce disposable items and encourage reusing supplies.

▸ Enhancing the existing recycling program.

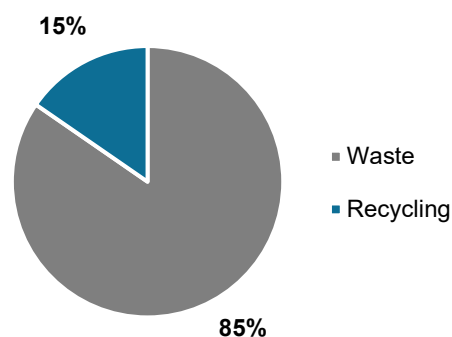▸ Tracking and voluntarily reporting waste metrics and diversion progress.

Efforts to reduce waste generation and increase landfill diversion align with the City's goal of operating SLE in a sustainably responsible manner.

Planning for solid waste and recycling under the terminal area plan fulfills SLE's federal obligation under the Federal Aviation Administration (FAA) Modernization and Reauthorization Act of 2012, FAA Reauthorization Act of 2018, and associated guidance.
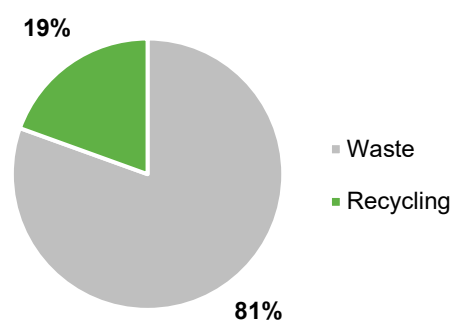
Waste at SLE

Category	Tons
Existing Waste to Landfill	20.65
Existing Recycling	3.75
Potential Diversion (minimum)	5
Potential Waste to Landfill	19.4

Tons

Existing Diversion

- Waste: 85%
- Recycling: 15%

Potential Diversion

- Waste: 81%
- Recycling: 19%

KEY RECOMMENDATIONS

The following key recommendations are immediate solutions to improve waste management at SLE through strategies that include waste reduction, reuse, and recycling. Evaluation for each recommendation considered estimated relative cost and diversion potential, benefits to the Airport and its stakeholders, and noted alignment with best practices or Total Resource Use and Efficiency (TRUE) Certification, a program that supports zero-waste goal setting with considerations for resource life cycles.

For quick comparison, an impact overview section has been included at the beginning of each recommendation on diversion (see **Table B-1** for symbol significance). In later sections, additional key recommendations, the plan to minimize solid waste generation, and considerations for a phased and comprehensive planning approach to waste diversion improvements at SLE are provided.

Table B-1: Recommendation Overview Key

Item	Icons*	Significance
Relative Cost	\$ \$ \$	Low cost
	\$ \$ \$	Medium cost
	\$ \$ \$	High cost
Estimated Diversion Potential	🗑 🗑 🗑	Low diversion potential
	🗑 🗑 🗑	Medium diversion potential
	🗑 🗑 🗑	High diversion potential
Benefits	🍃	Reduced Environmental Impact(s) *(e.g., Reduced Resource Consumption, Emissions, and/or Pollution)*
	🐷	Cost Savings
	👥	Support Community / Build Relationships
Alignment	**BMP**	Best Management Practice
	TRUE	BMP and **TRUE** Certification program element

* Icons are "filled in" or active when shown in a dark color and are "empty" or inactive when shown in light grey.

Key Recommendation 1: Integrate Waste Diversion

Relative Cost	Estimated Diversion	Benefits	Alignment
$ $ $	🗑 🗑 🗑	🍃 🐷 👪	**BMP**

Description

Waste management at SLE should include avoiding and managing waste to prevent landfill disposal throughout all Airport operations that generate waste and recyclable materials. Waste diversion strategies include practices such as reduction, reuse, donation, sustainable procurement, recycling, and composting. These strategies offer various levels of fiscal, environmental, and social benefits.

Action

It is recommended that SLE integrate waste diversion concepts and practices into existing policies and operations, such as maintenance operations, purchasing practices, and tenant requirements.

Justification

Most of the municipal solid waste generated at SLE is brought to Republic Services Capitol Recycling & Disposal Transfer Station (see **Current Waste Management Program** section). Waste diversion would reduce the volume of waste sent to the landfill as well as reduce the financial and social impacts of waste.

Information Needed

- Communication tools to reach SLE staff and tenants.
- Waste diversion information from the City and/or hauler.

Action Plan

- Emphasize importance of waste diversion to SLE staff and tenants.
- Adopt a waste diversion policy or integrate language into existing guidance documents, including tenant lease language or contractor guidance (see **Review of Waste Management Contracts and Tenant Leases** section).
- Documented policy should include planning considerations, staffing, equipment (type and source), training for staff and volunteers, and metrics for analysis.
- Align with the local and state efforts to meet the state of Oregon (the State) goal of 55 percent material recovery by 2025.
- Identify sources of waste and promote strategies to avoid, reduce, or divert these materials.
- Continue existing practices such as double-sided printing, digital documentation, and water bottle filling stations.

Key Recommendation 2: Review and Update Purchasing

Relative Cost	Estimated Diversion	Benefits	Alignment
$ $ $	🗑 🗑 🗑	🌿 🐷 👪	BMP

Description

To reduce the facility's volume of waste sent to the landfill, SLE should reduce waste generation by starting with the source of the materials. SLE's existing purchasing practices may generate waste in the form of single-use and/or disposable items and supplies. Tracking these items could reveal opportunities for reduction and reuse.

Action

It is recommended that SLE adopt a purchasing policy prioritizing durable (versus disposable) items and supplies that are reusable, recyclable, compostable, and/or made from recycled content. It is also recommended that SLE identify supplies and materials that can be avoided, reused on site, or donated to a third party.

Justification

Waste reduction is the most environmentally preferred waste management strategy as determined by the Environmental Protection Agency (EPA). Reduction and reuse simultaneously lower waste program costs by producing a smaller material stream.

Information Needed

- Purchasing records.
- Waste stream information.

Action Plan

- Adjust practices that generate waste (e.g., printing/physical media, housekeeping).

- Substitute durable alternatives for single-use or disposable items in areas such as the administration office and staff areas.

- Reuse items and materials where possible and encourage reuse by employees, tenants, and contractors.

- Consider purchasing branded reusable items and discontinuing the purchase of bottled water and disposable beverage containers.

- Review feasibility of sustainable alternatives for existing items such as coreless toilet paper, towels, and toilet paper.

- Implement an environmentally preferred purchasing (EPP) policy (i.e., buy in bulk, buy products with minimal packaging, use supplier/manufacturer take-back programs for items such as toner cartridges).

Key Recommendation 3: Enhance Existing Recycling Program

Relative Cost	Estimated Diversion	Benefits	Alignment
$ $ $	🗑 🗑 🗑	🍃 🐷 👫	**TRUE**

Description

To reduce the facility's volume of waste sent to the landfill, SLE should emphasize efforts to recycle materials that cannot be reused or avoided. While recycling does already take place at SLE, a program with clearly defined goals and objectives would organize efforts to educate all stakeholders and plan for maximizing diversion.

Action

It is recommended that SLE enhance its existing recycling program and supplement current practices with improved receptacles, additional signage, and an education campaign for all stakeholders. It is also recommended that SLE expand its recycling program to include all materials accepted by Marion County (see **Review of Recycling Feasibility**).

Justification

Convenient receptacles, effective signage, and educational campaigns have been shown to increase participation and improve compliance with a recycling program. Recycling bins should be readily visible, and instructional recycling signage would greatly increase the effectivity of recycling efforts. An awareness campaign for employees, tenants, and visitors further compounds the program's effectiveness.

Information Needed

- Inventory of related signage and areas of significant waste generation.
- Protocol for communicating program to employees, tenants, and visitors.
- Input from custodial staff and contractors regarding current practices and program effectivity.

Action Plan

- Re-invigorate recycling program with a focus on recycling correctly and the identification of accepted materials.
- Convert surplus garbage bins into recycling bins with labeling.
- Collocate all recycling and garbage bins into pairs throughout facility, especially in exterior areas, offices, and tenant spaces.
- Right-size and standardize bins and bin liners to match capacity needs.
- Install color-coded, graphic instructional signage in public areas, such as Recycle Across America standardized recycling labels (see **Attachment B-2** for more details).
- Develop a promotional campaign to communicate information about recycling program to staff and tenants.
- Monitor and adjust recycling program using feedback from SLE tenants and staff.

Key Recommendation 4: Implement Tracking and Reporting

Relative Cost	Estimated Diversion	Benefits	Alignment
$ $ $	🗑 🗑 🗑	🍃 🐖 👪	**TRUE**

Description

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

Action

It is recommended that SLE begin to regularly estimate and track the volume of waste sent to the landfill and the volume diverted through reduction, reuse, donation, recycling, or other strategies. Sharing the total costs and cost savings associated with these services is also recommended. Additionally, SLE should discuss these trends with the waste hauler and program stakeholders (SLE staff and tenants).

Justification

SLE does not currently track or monitor internal metrics associated with its waste or recycling. However, these metrics are recorded and sent to Marion County by the Airport's hauler, and they directly impact the amount that is charged for annual user fees. Trends associated with SLE's waste generation, landfill volume, diversion volume, and associated costs could indicate opportunities for improvement.

Information Needed

- Waste generation, disposal, and cost estimates.
- Software needs (tracking tool)
- Estimates for volume of waste diverted by various strategies and avoided costs.
- Mechanism for communicating progress to stakeholders.

Action Plan

- Create a simple tracking tool (spreadsheet) and collaborate with Republic Services to track waste disposal and recycling tonnage.
- Obtain estimate of associated user fees from Marion County and determine savings from waste diversion.
- As strategies are implemented, update the tracking tool to reflect waste avoided or diverted and their associated costs.
- Evaluate data for additional opportunities to set and pursue waste diversion goals.
- Share and celebrate progress with stakeholders.

Additional Key Recommendations for Consideration

In addition to the primary recommendations stated previously, several other key strategies should be implemented at SLE in the near-term. These additional recommendations fall into three categories: Objectives and Targets, Additional Facilities and New Development, and Continuous Improvement.

Objectives and Targets

▷ Create a vision for the SLE waste management program.

Example vision language:

> "The City is committed to environmental stewardship, supporting the Salem community, and operating efficiently by:
> - Working with our stakeholders to increase diversion of solid waste from the landfill.
> - Prioritizing donations, source reduction, and reuse to avoid creating waste.
> - Supporting our staff, tenants, and the Salem community in their efforts to reduce waste and divert material from the landfill."

▷ Set specific, measurable, achievable, realistic, and time-bound (SMART) goals for SLE's waste program.

Additional Facilities and New Development

▷ Consider waste diversion and management in the design and construction process of future airport projects.

▷ Require waste data from construction contractors and establish the data collection protocol.

▷ Implement best practices for construction and demolition (C&D) waste diversion.

Continuous Improvement

▷ Maintain and improve the recycling and waste program per the Plan-Do-Check-Act cycle.

Plan:	The recommended strategies and supporting references make up the "plan" portion of the process. Defining success, establishing materials and areas of focus, collecting baseline information and identifying strategies are all part of planning. In the future, additional areas of focus, baseline measurements, and goals will likely be needed.
Do:	Implementation of strategies included in this plan represents the "do" portion of the process. This involves implementing the recommendations in this plan and making progress toward achieving the goals.
Check:	As strategies are implemented, the "check" portion of the process involves reporting that requires regularly tracking and checking the progress toward meeting the goals. Develop and use tools for measuring success and identifying areas for improvement, including a mechanism for feedback and process for reviewing suggestions.
Act:	The "act" portion of the process encompasses taking what has been learned in the previous stages and actively responding. It can be helpful to ask, "What did we learn?" and, "How can we do better next time?"

▷ Continuously improve the waste diversion program; re-evaluate the program on a regular basis (at least annually); and adjust to accommodate program performance, stakeholder feedback, changes in the market, and technology advancements.

AIRPORT WASTE DIVERSION PLAN

In compliance with FMRA and in accordance with the FAA's guidance memo, this Plan was developed for SLE as part of the Master Plan Update. The Plan documents and assesses SLE's existing waste diversion program based on the factors and variables listed in the memo, such as the exclusion of certain waste types (e.g., hazardous waste) from the Airport's waste plan. The Plan provides recommendations for improvement, and its content was governed by the extent and accuracy of available information.

Regulatory Background

Figure B-1 outlines the introduction timeline and specifics of the FAA's waste planning requirement. The FAA provides content guidance for airport waste plans in the September 2014 memo on the topic (available on the FAA's website).

Figure B-1: FAA Solid Waste Recycling Planning Requirement Timeline and Details

FEB 2012	SEP 2014	OCT 2018	JUL 2019
FAA Modernization and Reform Act (FMRA) of 2012 Section 132(b) expanded the definition of airport planning to include: *"developing a plan for recycling and minimizing the generation of airport solid waste."* Section 133 of the FMRA specifies airports must develop an "Airport Waste Reduction, Reuse, and Recycling Plan" during master planning projects.	**FAA Memorandum** FAA issues a memorandum entitled "Guidance on Airport Recycling, Reuse, and Waste Reduction Plans." This memo details the FAA's expectations of and suggestions for an airport's solid waste plan, including the five elements listed in the FMRA and two additional elements.	**The FAA Reauthorization Act of 2018** Section 148(a)(1-2) amends 49 U.S.C. 47106(a) to update requirements for solid waste plans.	**Reauthorization Program Guidance Letter (R-PGL) 19-02** Provides details about the changes found in the October 2018 regulation: *"Any airport that applies for a funding grant for a project described in the facility's master plan must 1) have a waste plan in place or 2) develop one concurrently with the project grant."*

Source: FAA

Figure B-2 details the elements that are required for a solid waste recycling plan per the FMRA (marked with an asterisk, *) or suggested for inclusion in a plan per the FAA Memo (marked with two asterisks, **).

Figure B-3 lists the factors influencing the scope and nature of an airport's waste program, as described in the FAA memo.

Figure B-2: **Elements of Airport Solid Waste Management**

| Facility description and background** |
| Waste audit** |
| Feasibility of solid waste recycling* |
| Operation and maintenance requirements* |
| Review of waste management contracts* |
| Potential for cost savings or revenue generation* |
| Plan to minimize the generation of solid waste* |

Source: FAA.

Figure B-3: **Factors Influencing Airport Solid Waste Management Programs**

| Airport size, location, layout, and logistics |
| Amount and type of waste generated |
| Markets for recyclable commodities |
| Costs to transport and process materials |
| Local infrastructure |
| Willingness of an airport and tenants to implement waste diversion practices |
| Interaction between reduction, reuse, recycling, composting, landfill, and other alternatives |

Source: FAA.

Airport Information

Figure B-4 shows a summary of background information about SLE, including its layout, location, classification, governance, and operations.

Figure B-4:   SLE Background Information

Located in
*City of Salem,
Marion County*

Classified as a
*General Aviation
Airport*

City of Salem
Owner and Operator

WASHINGTON

OREGON

Runway 16/34

Runway 13/31

2
Enplanements/year

43,273
Operations/year

189
Based aircraft

0   500   1,000
FEET
N

Sources: AirportIQ 5010; FAA Terminal Area Forecast; Mead & Hunt, Inc., 2023

Plan Scope

Municipal Solid Waste (MSW) consists of everyday items that are used and then discarded. This plan focuses on the management of MSW and other materials that may be recycled or disposed of in a municipal solid waste landfill. There are five primary types of MSW generated at airports: general MSW, food waste, green waste (yard waste), deplaned waste, and C&D waste. Some of the five types of MSW, such as deplaned waste from commercial flights, will not apply to SLE.

This plan does not address the management of other waste types regulated by federal, state, or local laws, specifically:

▸ Hazardous or industrial waste.

▸ Universal waste (batteries, fluorescent light bulbs).

▸ Deplaned waste from international flights.

▸ C&D waste subject to special requirements or handling (items containing asbestos or lead).

Facilities at SLE include buildings and areas that the City has varying degrees of control or influence over regarding waste management practices. Some areas fall under direct control of the City and its staff, while others the City has influence but not direct control. According to FAA guidance, areas over which the City has direct control or influence should be included in the Airport Waste Diversion Plan; areas outside the City's control or influence may be excluded.

Table B-2 shows a breakdown of the areas the City controls, influences, or neither controls nor influences.

Table B-2:   Waste Management Areas at SLE

Management Level	Facility
Areas under direct control	▸ Terminal and Offices ▸ Weather Building (Maintenance Office)
Areas under influence	▸ N/A
Areas not under control or influence	▸ Restaurant, FBOs, Other businesses

Source: SLE

Current Waste Management Program

The waste program at SLE is maintained by Airport staff. Republic Services directly manages waste and recycling collection using garbage trucks to collect materials from SLE's dumpsters and compactors. Recycling dumpsters are provided by Republic Services for use by SLE facilities.

Figure B-5 shows the materials collected by Marion County in SLE's existing recycling program.

Figure B-5:   Items Currently Collected for Comingled Recycling at SLE

Source: Recology, Marion County

SLE's maintenance staff are responsible for custodial activities in buildings and areas directly managed by the Airport, such as the terminal and administration areas. Maintenance staff collect waste and recyclables from bins and transfer these materials to the appropriate dumpsters.

SLE's tenants are responsible for custodial activities in their areas, including transferring waste to the appropriate dumpsters. FBOs, hangar tenants, and other aviation-related businesses at the airport are responsible for individual housekeeping and contracting for their own waste dumpsters and recycling services.

Infrastructure

The objective of the waste and recycling infrastructure is to help relieve and mitigate issues from the current program by planning for optimized waste diversion with the appropriate infrastructure to help improve waste collection and diversion efforts. The goals of the waste and recycling infrastructure at SLE are to:

- ▷ Increase the proper recovery of recyclable materials.
- ▷ Minimize the costs of waste management and diversion.
- ▷ Create an aesthetically appealing set of waste infrastructure options.
- ▷ Provide the public, employees, and tenants with educational messaging about the importance of proper waste management.
- ▷ Enhance the plan required by the FAA.

Figure B-6 shows the existing terminal building infrastructure in place at SLE.

Figure B-6:   Existing Terminal Building Infrastructure
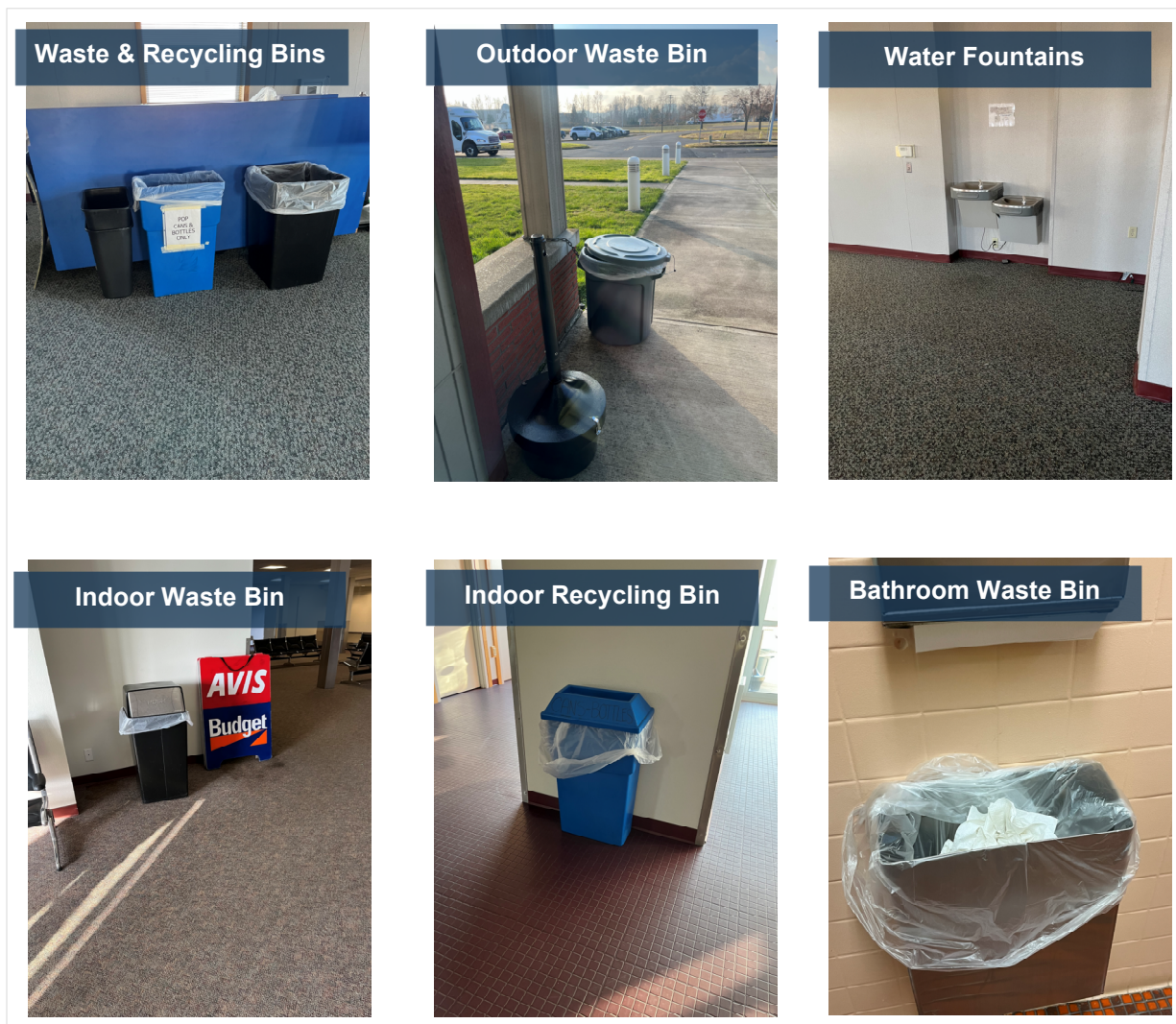
Waste Audit

An evaluation of SLE's information and records, as well as aviation industry waste and recycling trends, supported efforts to identify the source, composition, and quantity of waste generated at SLE, including areas under SLE's direct control or influence. This information then served as a foundation to identify opportunities to improve and monitor program effectiveness.

Quantity

20.65
Annual tons of MSW

3.75
Annual tons of Recycling

These volumes are based upon the capacity and frequency of collection service for each of the facility's receptacles and the EPA's volume-to-weight conversion factors for MSW.
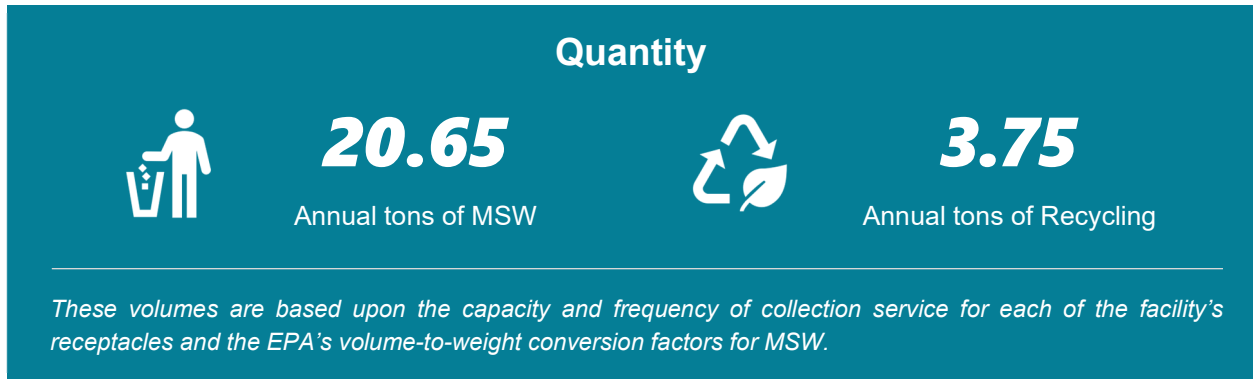
Additional details about the logistics and parameters of the SLE waste program can be found in **Attachment B-3**, the Airport Waste and Recycling Data Request.

Purchases

SLE Procurement Staff currently track the quantity and type of disposable items and supplies purchased for the facility. This information provides insight on some of the materials coming into the Airport that will go back out as waste (other materials are brought on-site by visitors, employees, tenants, and vendors).

Identifying and tracking the type and quantity of all disposable items purchased will allow SLE to identify opportunities to reduce outgoing waste, including:

- Some items that could be eliminated:
  - Single-use plastic and paper items.
  - Plastic water bottles for staff and guests.
  - Unwanted mail.
  - Failing/aged infrastructure (replace with more energy- and product-efficient options).
- Items that have reusable or recyclable alternatives:
  - Repair and reuse pallets, crates, boxes, and buckets.
  - Donate or compost excess food.
  - Use reusable cups, water bottles, plates, and flatware.
  - Replace trash cans with mini-bins to encourage recycling.

Sources and Composition

Based on the activities taking place at SLE, a varied waste stream can be expected. **Table B-3** lists each area included in the scope of this Plan and the type(s) of waste likely generated. A formal waste sort could also be used to identify opportunities to improve the composition of the waste stream (by item substitution, improving recycling to reduce the volume of waste, etc.). A physical waste composition study could provide more detailed information about the specific composition of waste at SLE. This information may include:

- Types of items included in each general category.
- Contamination rate of the recycling stream (items that are not recyclable in the recycling bins).
- Recovery rate for recycling (the proportion of recyclable items that are segregated properly).

Table B-3: SLE Waste by Area and Material

Area | Material	Office Paper	Newspapers	Magazines	Plastic	Aluminum	Cardboard	Glass	Food Waste	Paper Products	Liquids	Toiletries	Packaging	Styrofoam	Metals	Green Waste	C & D Waste
Public areas		x	x	x	x		x	x	x	x	x	x		x		
Terminal Tenants	x	x	x	x	x	x		x	x		x	x	x	x		
Fixed Base Operator	x	x	x	x	x	x		x	x		x	x	x	x		
Hangar tenant areas		x	x	x	x	x		x	x			x	x	x		
Airport Maintenance	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
ARFF	x	x	x	x	x	x		x	x			x		x		

Source: SLE

Review of Recycling Feasibility

There are several factors that influence the feasibility of recycling and other waste diversion strategies at an airport. These factors were assessed for their influence at SLE.

Guidelines and Policies

To evaluate SLE's existing diversion plan in the context of local, state, and national requirements, federal, Oregon State, and local-level waste and recycling regulations, policies, and factors were reviewed.

Federal

As described in the **Regulatory Background** section, the FAA's definition of airport planning includes planning for recycling and waste minimization.

The United States Environmental Protection Agency (EPA) is responsible for developing a solid waste management program under the Resource Conservation and Recovery Act (RCRA) and related policies and guidance. RCRA provides the framework for 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.

Figure B-7 shows a hierarchy of waste management strategies developed by the EPA. The hierarchy on the left ranks these strategies from most- to least-environmentally preferred and places emphasis on reducing, reusing, and recycling. In addition to the general waste management hierarchy, the EPA has also developed a preference ranking of management strategies for food waste, as shown in the figure below.

Figure B-7:   Waste Management and Food Recovery Hierarchies
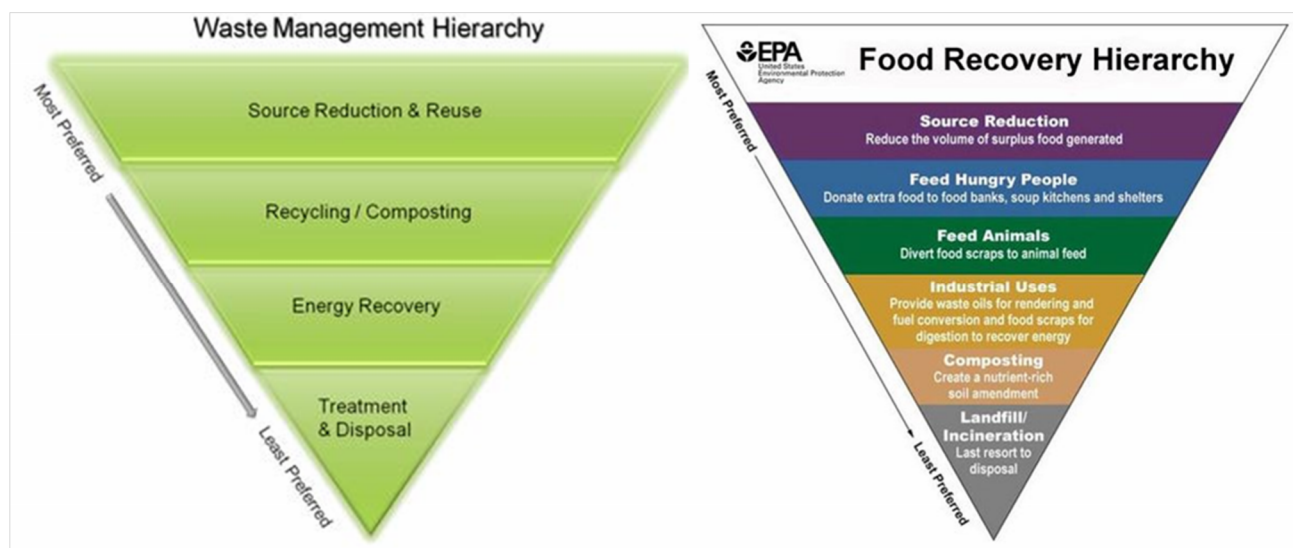
Source: United States Environmental Protection Agency.

State

The State of Oregon's 1971 Bottle Bill, administered by the Oregon Liquor Control Commission, was the first of its kind in the country designed to reduce litter. Outside of the Bottle Bill, the State's base recycling law is the Opportunity to Recycle Act, first passed in 1983 and last amended in 2015. The Oregon Department of Environmental Quality (DEQ) establishes Recycling and Waste Reduction administrative rules to elaborate on the Act and is responsible for regulating cities, counties, and other local governments regarding waste. The DEQ has developed a policy and integrated plan for managing waste materials, *Materials Management in Oregon: 2050 Vision and Framework for Action.* The Opportunity to Recycle Act prioritizes certain waste management strategies over others in alignment with the hierarchy promoted by the EPA.

The State set its material recovery rate goal to 55 percent for 2025. In addition, the State's recovery rate goals for food waste, plastic waste, and carpet waste are all 25 percent by 2020. Each county (and some metropolitan areas) set their own voluntary recovery goals by statute. To make progress under the 2050 Vision, cities of a certain size or within a certain region must implement three to five listed reduction and reuse elements. All other cities must implement a minimum number of recycling program elements, based on their size and location, chosen from the thirteen options listed in Senate Bill 263. The State's laws and plans allow local units to implement programs to meet the statewide mandatory and individual voluntary goals.

The State requires local governments to implement recycling programs, and in some jurisdictions, it requires waste prevention and reuse programs. The following are the State's recycling goals:

▷ Reduce the amount of solid waste generated.

▷ Reuse material for the purpose for which it was originally intended.

▷ Recycle material that cannot be reused.

▷ Compost material that cannot be reused or recycled.

▸ Recover energy from solid waste that cannot be reused, recycled, or composted so long as the energy recovery facility preserves the quality of air, water, and land resources.

▸ Dispose of solid waste that cannot be reused, recycled, composted or from which energy cannot be recovered by landfilling or other method approved by the DEQ.

Local

Solid Waste Management is governed by Oregon Revised Statutes Chapter 459 and 459A. Marion County fulfills the State of Oregon's requirements by implementing the Marion County Code of Regulations, Title 8 Health and Safety, Chapter 8.05 Solid Waste Management. Chapter 8.05 states:

> *A. In order to protect the health, safety, and welfare of the people of Marion County; to provide a coordinated program of waste reduction, recycling, collection, and disposal of waste and solid waste, recyclable materials and compostable materials; and to provide a viable franchise system; it is declared to be the public policy of Marion County to regulate the collection, transportation, recovery of materials and/or energy, and disposal of solid waste, in order to:*
>
> > *1. Provide for safe and sanitary collection, transportation, energy recovery, and disposal of waste and solid waste, recyclable materials and compostable materials.*
> >
> > *2. Provide a coordinated county-wide program for control of waste and solid waste, recyclable materials and compostable materials in coordination with federal, state, and local agencies and laws.*
> >
> > *3. Provide for and encourage research, study, surveys, and demonstration projects on developing more efficient and economical recovery of materials and/ or solid waste disposal systems and programs.*
> >
> > *4. Provide standards for location and operation of solid waste and materials resource recovery facilities.*
> >
> > *5. Establish franchises and set franchise rates for franchised collectors, waste transporters, along with disposal operations at transfer stations, energy recovery facilities, or at sanitary landfills, that are just, fair, reasonable, and adequate to provide funding necessary for providing solid waste management to the people of unincorporated Marion County.*
> >
> > *6. Provide for economically feasible resource recovery.*
> >
> > *7. Provide for economically and environmentally sound waste reduction through such techniques as reduction at source, recycling, reuse, and/or materials resource recovery.*
>
> *B. The board has the discretion to expend funds for any and all solid waste management activities. [Ord. 1309 § 1.3, 2010.]*

The City and County codes do not appear to include waste reduction or recycling goals; however, it is assumed the City and surrounding governmental jurisdictions follow the waste management goals and efforts stated within the *Materials Management in Oregon: 2050 Vision and Framework Action.* The City hosts several recycling events throughout the year to help residents dispose of electronics, hazardous waste, and other large items in the proper manner.

The Marion County recycling program accepts all recyclable materials listed in **Table B-4**.

Table B-4:   Accepted Recyclable Items in Marion County

Curbside			
Tin cans	Aluminum cans	Cardboard (must be flattened)	Mixed paper: (office paper, envelopes, junk mail, cards, books, paper bags, wrapping paper, newspaper, inserts, magazines)
-	Phone books	Plastic, bottles, and jugs	Paperboard: (shoe boxes, gift boxes, soda boxes, food boxes, paper towel rolls, paper egg cartons)
Drop-Off			
Tires	Cardboard	Aluminum cans	Paperboard: (shoe boxes, gift boxes, soda boxes, food boxes, paper towel rolls, paper egg cartons)
Antifreeze	Glass, jars and bottles	Plastic, bottles and containers ONLY	Used motor oil, filters and bottles (leave caps on)
Yard waste	Propane tanks (no caps)	Appliances, large (refrigerators, washers, dryers)	Hazardous household materials
Scrap metal	Bulbs (CFL light bulbs, fluorescent tubes)	Batteries, lead-acid (car, truck, boat), NiCad	Household electronics (televisions, computers, computer monitors, printers)
Tin cans	Paint (oil and latex)	Telephone books	Mixed paper: (office paper, envelopes, junk mail, cards, books, paper bags, wrapping paper, magazines)

Source: Marion County, Reduction, Recycling & Garbage

Drivers and Constraints

Many factors affect waste diversion feasibility at SLE. Such factors include both opportunities for growth, such as local commitments to environmental sustainability, and challenges to the implementation of a recycling plan, such as the availability of region-wide recycling infrastructure.

Airport Policy, Commitment, and Support

The willingness of SLE staff, contractors, and tenants to support the Airport's waste diversion plan is critical to the program's success. Without committing resources such as funding, labor and time, space, and access to secure areas, a waste diversion program could struggle.

SLE's staff remain committed to the existing recycling program and wish to oversee its expansion into additional areas. They assert that recycling and waste reduction represent opportunities for energy and cost savings, as well as providing a genuine service to the community. This Plan will serve as a means for SLE to be proactive in their future airport-wide sustainability planning efforts.

Local Dedications

Based on the resources allocated to local recycling programs, Marion County appears to generally support 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 SLE, and therefore its visitors, have been exposed to recycling, receive on-going messaging about its importance, and are generally supportive of recycling efforts.

Local Markets, Logistics, and Infrastructure

Markets for recycled materials fluctuate based on many factors and interactions. Local waste haulers typically accept materials that can be recycled cost-effectively in the area; however, rebates are not lucrative without significant volume and minimal contamination. Manufacturers purchasing recycled material want it to be predictable and ready for use; therefore, recycling facilities are discriminatory about what materials they accept. They almost unilaterally prefer materials that are of high value, are clean, and are easy to separate.

The drop-off location for MSW in Salem is the Republic Services Capitol Recycling & Disposal Transfer Station. This facility is located roughly 3 miles southeast of SLE, and it has adequate capacity to serve SLE and the local area for the foreseeable future. Recycling is coordinated through sorting efforts at the facility where materials are sent out to the respective commodity markets unless a load is contaminated. Loads that are unable to be processed for recycling are sent to the Brown's Island Demolition and Landfill.

Partnerships

SLE has internal, on-airport, and community stakeholders that are critical to the success of waste diversion efforts and planning. As the Airport creates strategies to address optimizing waste management, building and discovering synergies with Airport stakeholders will ultimately lead to the best outcomes.

Airport staff can be further influenced by the vision and enthusiasm of City leadership. It is imperative to illustrate the importance of the waste diversion program and how it contributes to overall environmental and social sustainability.

In addition, the Salem/Marion community is involved when it comes to sustainability and social support, so there is a great conduit for SLE to contribute to community stewardship.

Internal	Facilities Grounds Purchasing SLE Employees
On-Airport	Custodial Services Waste/Recycling Hauler(s) Suppliers
Community	Marion County MRF City of Salem Marion County State of Oregon

Aligning the SLE program with stakeholder practices, like those of the entities that operate at the Airport, provides opportunities for mutually beneficial agreements. The Airport can reduce its environmental impact and, by helping stakeholders reduce their impact, generate goodwill between SLE and the local community.

Costs

Airport staff strive to operate SLE to be as self-sustaining as is feasible; therefore, it is imperative that programs implemented and maintained at SLE, including recycling and other waste diversion strategies, are as cost-effective as possible. See **Financial Analysis** for more information.

Operation and Maintenance (O&M) Requirements

There are currently not any documented or official operations and maintenance requirements at the Airport. SLE is set up to recycle commingled materials in public and office spaces. There are efforts to separate material by airport staff, contractors, and tenants, but not all efforts are done properly. There is a concern that materials are ending up in the landfill due to logistical issues with the receiving recycling material recovery facility.

There are standard waste collection practices in place at SLE. Waste is collected from the public and office spaces by SLE maintenance staff and taken to the commercial trash dumpster or recycling dumpster. Each airport tenant is responsible for taking their own trash and recycling to the same dumpsters. These trash and recycling dumpsters are located by the offices. Recyclable materials and trash are removed from Airport property by Republic Services.

Review of Waste Management 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 (waste) program scope and efficiency, as well as identify constraints." By reviewing contracts and tenant leases for language pertaining to waste management practices, the waste plan may appropriately identify opportunities to encourage responsible waste management for all levels of Airport activity.

Contracts typically detail general housekeeping requirements and related expectations for managing trash/recycling. Waste management contracts and tenant leases were not reviewed for provisions related to waste management as part of this study.

Contracts should include language to mandate or incentivize the recycling and prescribed waste management strategies of the Plan by requiring conformance with or support of any future Airport-related waste diversion efforts. Contracts are a vehicle through which the City can influence tenant behavior, including waste diversion.

As contracts and leases expire, extend, or renew, it is recommended that SLE consider revising the new contract language to include waste management requirements or preferences, such as support of the recycling program. This could be a general clause stating a preference that tenants reduce, reuse, and recycle where practicable or specific information about recycling, reuse, or waste reduction objectives and requirements.

Some sample contract provisions to be considered include the following:

▷ Utilize technology to be responsive to waste challenges including logistics and staff training.
▷ Require dilution control systems to help reduce wasted packaging.

- Plan for reduced purchases of chemicals by purchasing in bulk.
- Reduce paper consumption using strategies like digital work orders and electronic procurement documents.
- Require documentation showing compliance with all waste diversion requirements.

It is important to customize waste diversion language in contracts as the program at SLE evolves. Standard waste management language should be included in all tenant standards. Several example provisions include:

- "Tenant finishes shall contain [x percent] recycled content and shall be chosen with their life cycle impacts in mind."
- "Tenant areas shall provide receptacles in public areas that meet the following criteria:
  - Three streams, with flexible signage and lids for future compost option.
  - Conjoined or connected containers.
  - Consistent configuration throughout the space.
  - Restrictive, color-coded lids.
  - Made from recycled content.
  - Comfortable to service and maintain."
- "Tenants shall allocate back-of-house space for bins to collect two streams (comingled recycling and landfill waste). Tenants shall indicate the allocated footprint on their build-out plans/submittals."

Attachment B-4 provides sample environmental clauses and provisions that are provided by the US General Services Administration (GSA) Sustainable Facilities Tool (SFTool) for use in janitorial contracts. These examples can be customized for use in tenant contracts in order to influence alignment with the Airport's goals and objectives for waste diversion.

Financial Analysis – Potential for Cost Savings or Revenue Generation

According to the FAA memo "Guidance on Airport Recycling, Reuse, and Waste Reduction Plans," an analysis of the financial aspects of waste management assists airport sponsors in determining the cost versus benefit of all existing and proposed enhancements to an airport's practices and should include capital costs, physical infrastructure, transport, and labor.

A financial analysis of the cost for waste management at SLE was not conducted for this plan. It is anticipated that reducing and diverting waste generated at SLE would reduce costs through adjustments to the waste collection schedule and size of waste dumpsters required at the facility.

CONCLUSION

The City currently has a simple waste program in place for SLE that includes basic elements and has the potential to be expanded in phases to further reduce the facility's environmental impact. This document has described the existing program and outlined recommended improvements that will allow SLE to potentially increase both landfill diversion and recycling volumes. In addition, this plan documents and supports SLE's compliance with the FMRA of 2012 and FAA guidance for recycling, reuse, and waste reduction.

WASTE GLOSSARY

(Sorted by chronology)

FAA Modernization and Reform Act of 2012 (FMRA) – legislation that seeks to improve aviation safety and capacity of the national airspace system and provide a stable funding system.

FAA Reauthorization Act of 2018 – reauthorization of FMRA 2012 to extend funding and administrative authority to the FAA.

Waste Diversion – avoiding and/or managing waste to evade landfill disposal through strategies including refusal, reduction, reuse, and recycling.

Total Resource Use and Efficiency (TRUE) – Zero waste certification program administered by the Green Business Certification Inc. (GBCI).

Environmental Protection Agency (EPA) – independent agency of the US government that establishes policies that protect the natural environment.

Reauthorization Program Guidance Letter (R-PGL) 19-02 – implements provisions to FAA Reauthorization Act of 2018 that changed project eligibility, scope, or funding under 49 U.S.C., Chapter 471.

Municipal Solid Waste (MSW) – everyday items that are used and then discarded. There are five primary types of MSW generated at airports:

  ▶ **General MSW** – common inorganic waste, such as product packaging, disposable utensils, plates and cups, bottles, and newspaper. Less common items, such as furniture and clothing, are also considered general MSW.

  ▶ **Food waste** – either food that is not consumed or the waste generated and discarded during food preparation. Food waste and green waste make up a waste stream known as compostable waste.

  ▶ **Green waste (yard waste)** – tree, shrub and grass clippings, leaves, weeds, small branches, seeds, pods, and similar debris generated by landscape maintenance activities. Food waste and green waste make up a waste stream known as compostable waste.

  ▶ **Deplaned waste** – waste removed from passenger aircraft. These materials include bottles and cans, newspaper and mixed paper, plastic cups, service ware, food waste, food-soiled paper, and paper towels. This type of waste is not applicable for SLE.

  ▶ **Construction and demolition (C&D) waste** – any non-hazardous solid waste from land clearing, excavation, and/or the construction, demolition, renovation or repair of structures, roads, and utilities. C&D waste commonly includes concrete, wood, metals, drywall, carpet, plastic, pipes, land clearing debris, cardboard, and salvaged building components.

Resource Conservation and Recovery Act (RCRA) – federal law of the US governing the disposal of solid or hazardous waste.

State of Oregon Department of Environmental Quality (DEQ) – Oregon state body dedicated to "restoring, maintaining and enhancing the quality of Oregon's air, land and water."

ATTACHMENT B-1

SLE WASTE PLAN SITE VISIT OBSERVATIONS

January 19, 2023
Mead & Hunt, Inc.

General Observations

▶ SLE is not currently tracking nor reporting waste/recycling

▶ Provide language for contracts that will mandate compliance with the airport's diversion objectives

▶ "Consistency" is the theme of the waste diversion plan including infrastructure and procedures

▶ Need for more recycling bins for convenience

Goals and Recommendations

▶ Implement tracking and reporting of volume of waste sent to the landfill and volume diverted through recycling practices

▶ Improve contracts, leases, and purchasing policies

▶ Consider purchasing reusable items

▶ Educate employees, tenants, and contractors on waste diversion

ATTACHMENT B-2

RECYCLE ACROSS AMERICA LABELS

Recycle Across America (RAA) is a non-profit organization whose sole mission is to standardize the labeling for collection containers to reduce confusion and fight contamination. Their solution is color-coded, photo centric, standardized labels that accommodate programs with different acceptable materials while displaying messaging and a format that is consistent. Recycle Across America labels are visible in airport applications around the country. RAA provided data from studies conducted by Leave No Trace that showed up to 100 percent increases in recycling quantities and contamination levels significantly reduced to minimal or no detection.

SLE's existing recycling and trash cans are the primary tool for communicating with visitors about the program. They are currently labeled "recycling" and "trash." This demarcation does not indicate all materials are acceptable for recycling. Because recycling programs vary from location to location, clear instructional bin labeling has been shown to increase program participation and reduce recycling contamination. Prioritizing specific items based on feedback from the County material recovery facility should result in an update of current bin labeling as the containers are only labeled for bottles and cans without acknowledgement for the rest of the accepted materials.

The Recycle Across America labeling system offers two options for containers for landfill-bound waste: "landfill" or "trash." Labeling the bins as "landfill" may encourage "wishcycling" (placing items in recycling instead of the trash in hopes it can be recycled or will not go to the landfill). The Recycle Across America organization will have insight on this choice. Recycle Across America limits customization of the labels (because significant changes would defeat the principle of standardization) but can accommodate changes such as adding logos. The City could consider adding the SLE logo and/or displaying the name(s) of local organizations such as Keep Charleston Beautiful that would support the labeling effort.

Graphic labeling is especially important in an environment like SLE that serves an incredibly diverse group of users. Recycle Across America sells standardized labels that would improve the Airport's diversion program by providing clear instructions and aligning with other airport facilities. The following pages provide examples of RAA label options and guidance.

Sample Recycle Across America Labels

Airport Recycling, Reuse, and Waste Reduction Plan

Information Request and Data Collection Form

Background: The purpose of this request is to collect information pertinent to the development of an airport recycling, reuse, and waste reduction plan in accordance with FAA requirements. The FAA requires the inclusion of a waste reduction plan in conjunction with all master planning efforts.

For more information, see the FAA Modernization and Reform Act of 2012 (FMRA), Reauthorization Program Guidance Letter (R-PGL) 19-02, FAA Reauthorization Act of 2018, and FAA Memorandum Guidance on Airport Recycling, Reuse, and Waste Reduction Plans, dated September 30, 2014.

By compiling and analyzing the information outlined in this document, the airport will have sufficient information to make informed waste management decisions over time. If changes to the waste program are not technically or economically feasible at this time, this information will help an airport determine when such adjustments make sense.

Instructions: Please fill out this information request as completely as possible. Checkboxes (☐) have been provided to track information that has been collected, and these boxes may be interacted with directly within the Word document using a single click. Some elements may not be applicable to every facility; the more information that is provided, the more the final report will align with the FAA guidance.

AIRPORT REPRESENTATIVE:

☐ a) John Paskell

☐ b) Airport Manager

☐ c) 503-589-2057

☐ d) jpaskell@cityofsalem.net

FACILITY DESCRIPTION AND BACKGROUND

1. **Airport Background Information:**

   ☐ a) Airport Name: Salem Municipal Airport (McNary Field)

   ☐ b) Airport Address: 2990 25th Street SE, Salem, OR 97302

   ☐ c) Airport Classification: General Aviation

   ☐ d) Airport Owner: City of Salem

   ☐ e) Airport Operator: City of Salem

   ☐ f) Annual Enplanements:

   ☐ g) Annual Operations: 43,273 (2021)

   ☐ h) Based Aircraft: 165

☐ i) Carriers serving the Airport: N/A

☐ j) Please provide a copy of the Airport's most recent Master Plan and Airport Layout Plan.
   X:\1940800\201300.01\TECH\Information\ SLE airport-master-plan-update_2012.pdf

2. Recycling Program Scope:

☐ Please complete the following table:

Facilities over which the Airport has direct control of waste management	Areas over which the airport has no direct control, but may have influence	Areas over which the Airport has no direct control or influence
Terminal and offices Weather building → maintenance office		Restaurant Leased out, they're in control of their waste No other buildings are owned by the City
These areas will be included in the plan.		These areas will be excluded from the plan.

3. Current Waste Management Program:

☐ a) Please describe the airport's current waste management program

    ☐ How does waste move through the facility?

- Trash – standard trash cans, in each office. Either take own to dumpster, or custodial staff
- Dumpster picked up once a week.
- Cardboard recycling dumpster – once a month.
- Paper – dumped into blue trash bin, once a month pick up.
- Can / bottle collector in kitchen – give away to be recycled (custodial crew); cash refund.

    ☐ Does the Airport recycle? If so, for approximately how long? 20+ years.

    ☐ Which materials are recycled? Materials recycled are aluminum cans, plastic water bottles, paper and cardboard

    ☐ Which areas recycle? Terminal and offices.

    ☐ What is the role of a janitorial/custodial contractor? IS Living cleans bathrooms, vacuums, empties trash and handles landscaping.

    ☐ What is the role of a hauling company or companies? Republic Services

    ☐ Are the following practiced: waste reduction, material reuse, or composting? No composting.

☐ Do any of the Airport's tenants use their own system or hauler? Republic Services handles SLE waste. They also handle tenant's waste, but not under jurisdiction of the airport, since they only provide ground lease.

☐ Are there any other areas of note?

☐ Please provide a copy of maps depicting Airport recycling and waste collection areas.

☐ b) Describe how the airport's program fits into the local municipality's program.

Paper might be part of City's paper recycling program / cardboard.

Monthly service w/ republic.

☐ Please complete the following table with information about waste management within different areas at the Airport.

Description	Notes	Who manages waste from this area? (The Airport or other) — If waste is managed by Airport, does the Airport charge this user or otherwise recuperate the costs?	What types of waste are generated in this area? — What materials are recycled in this area?	Do agreements/leases include waste and/or recycling requirements? (Both? Neither? Waste Only?)	Please provide copies of these related documents:
Public Terminal Areas		SLE and office areas, weather building	Paper, plastic, aluminum, cardboard		☐ Maps and container counts
Other Terminal Tenants (not included above list here):	*Consider other organizations with offices at the Airport (TSA, CBP, etc.)*	Tenants	N/A	N/A	☐ Tenant agreements/leases
Fixed Based Operator(s)		FBO	N/A	N/A	☐ FBO agreements/leases
Hangar Tenants (List or describe here):		Tenants	N/A	N/A	☐ Hangar agreements/leases
Other Airport Facilities (List or describe here):	*Consider ARFF, Airport maintenance, Airport administration offices, Airport security offices, storage areas, loading docks, etc. Also consider construction and demolition, facility maintenance and grounds keeping, housekeeping, etc.*	ARFF - City			☐ Waste or recycling procedures or other documentation
Other Facilities or Activities Not Captured Above (List or describe here):	*Consider other tenants/users*				☐ Agreements/leases (if any)
					☐

(Questions 4 – 7: For airports with active recycling programs)

4. **What infrastructure is in place to support recycling?**

☐ Please complete the following table. This information will be used to estimate annual waste and recycling quantities when exact numbers are unknown (see **B. Waste Audit**). These estimates will use conversion factors from the US EPA.

On-Airport Infrastructure					
	Approximate Number and Estimated Size(s)	**Type(s) of Material**	**Frequency of Pickup and Fill Factor**	**Locations**	**Notes**
Examples:	1 x 90 gal 4 x 20 yd	General comingled waste	Once a week, half full	Outside of admin building	General commercial waste products
Office Waste	• 5 small waste • 3 small waste (restroom) • 1 tall round (kitchen)	General			
Outside Waste	• 2 large waste				
Terminal Waste	• 1 small waste • 2 tall waste • 2 large waste • 2 small waste (restroom)				
Terminal Holding room Waste	• 2 small waste • 3 large waste • 2 small waste (bathroom)				
Office Recycling	• 1 small paper • 1 larger paper • 1 bottle/can				

Outside Recycling					
Terminal Recycling	• 1 medium bottle/can • 1 small bottle/can				
Terminal Holding Recycling	• 1 bottle/can				
Recycling/ waste dual					
Recycling/ waste dual					
Composting bins					
Waste dumpsters	• 1 waste		1x/wk 3cy		
Recycling dumpsters	• 2 recycling	One for paper, one for cardboard	1x/wk 3cy		
Compactors					
Waste or recycling scales					
Waste or recycling storage areas					
Sorting / processing facilities					
Waste or recycling transport equipment					
Off Airport Infrastructure					
TO BE DETERMINED BY MEAD & HUNT					

5. **Describe the airport's current solid waste recycling, reuse, and waste reduction efforts.**

☐ Please complete the following table.

	Annual quantity	**Describe**	**Date Initiated (If known)**
Waste Reduction			
Material Reuse			
Recycling			
Paper recycling			
Plastic recycling			
Aluminum recycling			
Glass recycling			
Cardboard recycling			
Other recycling (describe)			
Composting	N/A	N/A	N/A
Tenant Efforts (describe)	N/A	N/A	N/A

6. **Drivers for implementing/maintaining a recycling program or other waste diversion practices.**

   ☐ Why does the airport recycle or divert waste?

   Environmental practices, good stewards of the environment.

7. **Program Performance:**

   ☐ a) Does the Airport have any recycling, reuse, and waste reduction goals?

   No specific goals.

   ☐ b) Does the Airport track any performance indicators related to waste or recycling?

   No tracking.

   If so, please provide copies of graphs, charts, or data tables used to track waste and recycling at the Airport (including any related survey results).

   ☐ c) Please describe community outreach/stakeholder involvement conducted under the Airport's existing waste/recycling program:

   N/A

   ☐ d) What are challenges and barriers to recycling, reuse, or waste reduction at the Airport?

   No challenges, do what's available, recycling efforts in place.

WASTE AUDIT

☐ **1. What is the total annual quantity of waste generated at the Airport?**

   ☐ What is the composition of waste generated (if known)?

☐ **2. What is the total annual quantity of recycling generated or waste diverted (compost, item reuse) at the Airport?**

☐ **3. Facilities, areas, and activities that generate waste**: Offices, lounge area, terminal area, restrooms.

☐ **Please list or describe disposable or recyclable items purchased by the Airport** Paper towels, disposable plates, bowls, napkins, utensils, office supplies, paper, trash bin liners?

RECYCLING FEASIBILITY

☐ **1. Describe the technical and economic factors that affect the airport's ability to recycle.**

☐ **2. List the Federal, State, or local guidelines related to recycling and waste management.**

☐ **3. Other incentives for implementing / maintaining recycling program**

MEAD & HUNT TO SUPPLEMENT BASED ON INDUSTRY TRENDS, RESEARCH, ETC.

☐ **4. Please describe any logistical considerations for recycling at the Airport:**

    ☐ *Space?*

    ☐ *Layout? Garbage cans in each room.*

    ☐ *Access (secure/sterile areas)? N/A*

    ☐ *Others? N/A*

MEAD & HUNT WILL NOTE ADDITIONAL CONSTRAINTS DURING MANAGEMENT MEETING.

OPERATION AND MAINTENANCE REQUIREMENTS

☐   Please complete the following table:

Aspect	Responsible Party (department, company, organization, title, etc.)	Roles / Responsibilities
Waste and recycling data collection / reporting / tracking	No tracking	
Transfer waste and recycling to bins	customers, employees	
Waste and recycling collection from bins, transfer to dumpsters	Custodial staff, tenants	
Waste and recycling collection from dumpsters for processing/disposal	Republic	
Procurement of containers and service providers (hauling services and janitorial/custodial contractor)		
Contract management	Airport	
Maintenance of waste and recycling equipment	Dumpsters – republic City owned cans	
Management of construction and demolition waste	Contractors responsible	

REVIEW AND WASTE MANAGEMENT CONTRACTS

☐ **1. Describe contracting for waste management at the airport.**

Please provide:

☐ The name of and contact information for the Airport's waste management (collection) contractor. Republic / IS Living.

☐ The name of and contact information for the Airport's recycling (collection) contractor.

☐ The name of the Airport's housekeeping contractor (if external).

☐ Copies of waste and recycling contracts or customer agreements (including service schedules) and latest request for proposals/bids (RFP/RFB) for these services.

☐ **2. Describe how existing contracts encourage or impede recycling and purchase of environmentally preferred products.** TO BE DETERMINED BY MEAD & HUNT

☐ **3. Please provide copies of tenant leases and service contracts and a list of contract or lease expiration / extension / renewal dates.**

☐ **4. Please describe how waste handling and recycling is funded.**

☐ **5. Please provide copies of waste and recycling invoices (calendar years 2019, 2020, 2021).**

☐ **6. Please provide a short summary / annotation of the invoices on how to interpret them (organization, monthly readings, total cost, etc.).**

POTENTIAL FOR COST SAVINGS OR REVENUE GENERATION

☐ **Present program recommendations developed based on the preceding information.** TO BE COMPLETED BY MEAD & HUNT

☐ **Compare the cost of landfill waste with recycling, composting, or reuse**

Financial analysis of overall program and potential recommendations based on available infrastructure, availability and proximity to commodity markets, market demand, and types of waste generated at the airport). The purpose of this analysis is to help airport sponsors evaluate the cost of the current program and determine if proposed enhancements should be implemented. Evaluate all program components (capital costs for containers, tipping fees, hauling costs, market/recycling rebates, and labor). Compare initial costs and cost reductions. TO BE COMPLETED BY MEAD & HUNT

PLAN TO MINIMIZE SOLID WASTE GENERATION

Document the final recycling, reuse, and waste reduction recommendations based on the information obtained in the waste audit, analysis of recycling feasibility, and financial analysis as well as the effectiveness of the current program. Identify opportunities for improvement.

ITEMS 1 - 10 TO BE COMPLETED BY MEAD & HUNT, AS NOTED. PROVIDED FOR REFERENCE.

☐ **1. Document program to recycle paper, plastic bottles, aluminum cans, and plastic cups (minimum). If factors prevent this minimum level of recycling, articulate the rationale.**

☐ **2. Present the airport's plan for a comprehensive approach to reduce the amount of waste being disposed of in landfills. Establish objectives and targets.** TO BE COMPLETED IN COLLABORATION WITH AIRPORT

☐ **3. Update and document arrangements/contracts/leases between the airport and tenants, new development specifications (containers and space for material collection, sorting, and recycling), and new purchasing policies / requirements. Link to objectives and targets.** WHERE APPROPRIATE, MEAD & HUNT WILL PROVIDE INFORMATION FOR THE AIRPORT TO UTILIZE TO COMPLETE THIS EFFORT.

☐ **4. Reference capital improvements required and include in the Airport Capital Improvement Plan.**

☐ **5. Describe plan recommendations that conflict with existing plans and programs. Identify procedures or best management practices to address these conflicts.** TO THE EXTENT POSSIBLE, THE PLAN RECOMMENDATIONS WILL BE DESIGNED TO COMPLEMENT AND COMPLY WITH EXISTING PLANS AND PROGRAMS.

☐ **6. Discuss how recycling will be considered and implemented as part of new development projects. Include information and timeframe to meet these goals.** WHERE APPROPRIATE, MEAD & HUNT WILL PROVIDE INFORMATION FOR THE AIRPORT TO UTILIZE TO COMPLETE THIS EFFORT.

☐ **7. Discuss how the airport will track and report on the recommendations and how this information will be reviewed to come up with ideas to improve performance. Establish a cycle of continuous improvement.** WHERE APPROPRIATE, MEAD & HUNT WILL PROVIDE INFORMATION FOR THE AIRPORT TO UTILIZE TO COMPLETE THIS EFFORT.

☐ **8. Describe program enhancements that will be considered in the future.**

☐ **9. Describe conditions that will trigger re-evaluation of constraints/elements out of airport's control.** WHERE APPROPRIATE, MEAD & HUNT WILL PROVIDE INFORMATION FOR THE AIRPORT TO UTILIZE TO COMPLETE THIS EFFORT.

☐ **10. Describe planned efforts for education and outreach to employees, tenants, and the travelling public.**

☐ **ADDITIONAL COMMENTS:**

(Consider elements not covered in previous sections; please use additional pages if needed.)

Applicable Environmental Clauses and Provisions for Janitorial Services

The following sustainability-related FAR clauses and provisions may be applicable to federal contracts for janitorial services. Refer the FAR for prescribed usage and updates; the content below is current as of January 5, 2016. Also be sure to review agency policies to identify any agency-specific clauses and provisions that may apply to your acquisition.

52.204-4 Printed or Copied Double-Sided on Postconsumer Fiber Content Paper (May 2011)

(a) *Definitions*. As used in this clause—

"Postconsumer fiber" means—

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

(b) The Contractor is required to submit paper documents, such as offers, letters, or reports that are printed or copied double-sided on paper containing at least 30 percent postconsumer fiber, whenever practicable, when not using electronic commerce methods to submit information or data to the Government.

(End of clause)

52.223-1 Biobased Product Certification (May 2012)

As required by the Farm Security and Rural Investment Act of 2002 and the Energy Policy Act of 2005 (7 U.S.C. 8102(c)(3)), the offeror certifies, by signing this offer, that biobased products (within categories of products listed by the United States Department of Agriculture in 7 CFR part 3201, subpart B) to be used or delivered in the performance of the contract, other than biobased products that are not purchased by the offeror as a direct result of this contract, will comply with the applicable specifications or other contractual requirements.

(End of provision)

52.223-2 Affirmative Procurement of Biobased Products Under Service and Construction Contracts (Sep 2013)

(a) In the performance of this contract, the contractor shall make maximum use of biobased products that are United States Department of Agriculture (USDA)-designated items unless—

(1) The product cannot be acquired—

(i) Competitively within a time frame providing for compliance with the contract performance schedule;

(ii) Meeting contract performance requirements; or

(iii) At a reasonable price.

(2) The product is to be used in an application covered by a USDA categorical exemption (see 7 CFR 3201.3(e)). For example, all USDA-designated items are exempt from the preferred procurement requirement for the following:

(i) Spacecraft system and launch support equipment.

(ii) Military equipment, *i.e.*, a product or system designed or procured for combat or combat-related missions.

(b) Information about this requirement and these products is available at http://www.biopreferred.gov.

(c) In the performance of this contract, the Contractor shall—

(1) Report to http://www.sam.gov, with a copy to the Contracting Officer, on the product types and dollar value of any USDA-designated biobased products purchased by the Contractor during the previous Government fiscal year, between October 1 and September 30; and

(2) Submit this report no later than—

(i) October 31 of each year during contract performance; and

(ii) At the end of contract performance.

(End of clause)

52.223-3 Hazardous Material Identification and Material Safety Data (Jan 1997)

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (*If none, insert "None"*)   Identification No.

_____   _____

_____   _____

_____   _____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to—

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with paragraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(End of clause)

Alternate I (July 1995). If the contract is awarded by an agency other than the Department of Defense, add the following paragraph (i) to the basic clause:

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in paragraph (b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

52.223-4 Recovered Material Certification (May 2008)

As required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(c)(3)(A)(i)), the offeror certifies, by signing this offer, that the percentage of recovered materials content for EPA-designated items to be delivered or used in the performance of the contract will be at least the amount required by the applicable contract specifications or other contractual requirements.

(End of provision)

52.223-5 Pollution Prevention and Right-To-Know Information (May 2011)

(a) *Definitions*. As used in this clause—

"Toxic chemical" means a chemical or chemical category listed in 40 CFR 372.65.

(b) Federal facilities are required to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050), and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).

(c) The Contractor shall provide all information needed by the Federal facility to comply with the following:

(1) The emergency planning reporting requirements of Section 302 of EPCRA.

(2) The emergency notice requirements of Section 304 of EPCRA.

(3) The list of Material Safety Data Sheets, required by Section 311 of EPCRA.

(4) The emergency and hazardous chemical inventory forms of Section 312 of EPCRA.

(5) The toxic chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA.

(6) The toxic chemical and hazardous substance release and use reduction goals of section 2(e) of Executive Order 13423 and of Executive Order 13514.

(End of clause)

Alternate I (May 2011). As prescribed in 23.1005(b), add the following paragraph (c)(7) to the basic clause:

(c)(7) The environmental management system as described in section 3(b) of E.O. 13423 and 2(j) of E.O. 13514.

Alternate II (May 2011). As prescribed in 23.1005(c), add the following paragraph (c)(7) to the basic clause. If Alternate I is also prescribed, renumber paragraph (c)(7) as paragraph (c)(8).

(c)(7) The facility compliance audits as described in section 3(c) of E.O. 13423.

52.223-9 Estimate of Percentage of Recovered Material Content for EPA-designated Items (May 2008)

(a) *Definitions*. As used in this clause—

"Postconsumer material" means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material."

"Recovered material" means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post-consumer material content; and

(2) Submit this estimate to _____ [*Contracting Officer complete in accordance with agency procedures*].

(End of clause)

Alternate I (May 2008). As prescribed in 23.406(d), redesignate paragraph (b) of the basic clause as paragraph (c) and add the following paragraph (b) to the basic clause:

(b) The Contractor shall execute the following certification required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(i)(2)(C)):

CERTIFICATION

I, _____ (name of certifier), am an officer or employee responsible for the performance of this contract and hereby certify that the percentage of recovered material content for EPA-designated items met the applicable contract specifications or other contractual requirements.

_____
[*Signature of the Officer or Employee*]

_____
[*Typed Name of the Officer or Employee*]

_____
[*Title*]

_____

[*Name of Company, Firm, or Organization*]

_____

[*Date*]

(End of certification)

52.223-10 Waste Reduction Program (May 2011)

(a) *Definitions*. As used in this clause—

"Recycling" means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.

"Waste prevention" means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

"Waste reduction" means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

(b) Consistent with the requirements of section 3(e) of Executive Order 13423, the Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this contract. The Contractor's programs shall comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C. 6962, *et seq*.) and implementing regulations (40 CFR Part 247).

(End of clause)

52.223-17 Affirmative Procurement of EPA-designated Items in Service and Construction Contracts (May 2008)

(a) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

(1) Competitively within a timeframe providing for compliance with the contract performance schedule;

(2) Meeting contract performance requirements; or

(3) At a reasonable price.

(b) Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, http://www.epa.gov/cpg/. The list of EPA-designated items is available at http://www.epa.gov/cpg/products.htm.

(End of clause)