12

RECYCLING AND SUSTAINABILITY

TABLES

FIGURES

CHAPTER TWELVE

SUSTAINABILITY

The purpose of this section is to provide a general overview of sustainability and define the Airport Recycling, Reuse, and Waste Reduction Plan for Pocatello Regional Airport (PIH). This plan is intended to enhance airport recycling and waste minimization efforts in order to comply with FAA requirements.

12.1. Sustainability

12.1.1. Defining Sustainability

The United Nations established the Brundtland Commission to address growing concerns about the deterioration of natural resources. In its 1987 report, the commission defined sustainable development as *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

The Airports Council International-North America (ACI-NA) took this approach a step further by stating that sustainability means taking *"a holistic approach to managing an airport so as to ensure the integrity of the economic viability, operational efficiency, natural resource conservation, and social responsibility (EONS) of the airport."*

12.1.2. Reasons for Sustainability

The airport should evaluate how each of its programs and initiatives impact airport users, the surrounding community, and the natural environment based on these definitions. It should then identify how best to integrate sustainable practices by taking the EONS approach to sustainability as part of the airport master planning process (Figure 12.1).

Figure 12.1: EONS Approach to Sustainability

Source: Ardurra

This process will require each airport to consider its particular circumstances and its role in the community as it relates to sustainability in order to set the groundwork for future planning and implementation. Along with improving the community and the natural environment, sustainability makes good business sense. Airports that have adopted sustainable practices have reported tangible benefits such as greater use of assets; reduced operating and maintenance costs; improved work environment for employees; reduced energy consumption, waste, and emissions; improved water quality; and positive community relationships.

12.1.3. How Sustainability Relates to Pocatello Regional Airport

In 2023, Pocatello adopted *Comprehensive Plan 2040* which is the city's 20 year plan to guide community development. The vision for Pocatello, as defined in its comprehensive plan, "is a creative community that is: collaborative; outdoor oriented; economically robust; environmentally resilient; connected, safe, and accessible; and comprised of authentic and affordable neighborhoods." The plan identifies a series of goals to help the city become a more environmentally resilient community and increase community stewardship of the local and regional environment. These include:

- Adopting a climate change action plan.
- Conserve and enhance the natural resources within and surrounding the Portneuf River Valley.
- Protect and enhance the quality and quantity of ground and surface water resources.

There is no formal recycling policy set. However, the public works department does work with the Pocatello Sanitary Department to recycle paper, plastic, metal, and cardboard items."[1]

12.1.4. Legislative Background

The FAA Modernization and Reform Act of 2012 (**FMRA**) amended Title 49 of United States Code (**USC**) to include several changes to the Airport Improvement Program (**AIP**). The two changes related to recycling, reuse, and waste reduction at airports are as follows:

- FMRA Section 132(b) expanded the definition of airport planning to include "*developing a plan for recycling and minimizing the generation of airport solid waste, consistent with applicable State and local recycling laws, including the cost of a waste audit.*"
- FRMA Section 133 added a provision requiring airports that have a master plan, and receive Airport Improvement Program funding, to ensure that the master plan addresses solid waste recycling at the airport. This includes addressing the following issues:
  - The feasibility of solid waste recycling at the airport.
  - Minimizing the generation of solid waste at the airport.
  - Operation and maintenance requirements.
  - Review of waste management contracts.
  - The potential for cost savings or the generation of revenue.

12.1.5. Types of Waste and Landfill Regulations

Landfills and waste are regulated under the Resource Conservation and Recovery Act (**RCRA**) which defines two main types of waste: solid waste (**Subtitle D**) and hazardous waste (**Subtitle C**).[2]

Subtitle D landfills are typically permitted by state and local governments to allow for the management of nonhazardous solid waste such as garbage, refuse, and discarded materials resulting from household and community activities or industrial and commercial operations while Subtitle C landfills are specifically designed to handle hazardous waste.

12.2. Types of Airport Waste

In general, solid waste from airports can be divided into the following categories:

- **Municipal Solid Waste (MSW)** consists of everyday items that are used and then discarded. It includes items such as product packaging, furniture, clothing, bottles, and newspapers.
- **Construction and Demolition Waste (C&D)** is any non-hazardous materials generated by excavation, construction, demolition, renovation, or repair of structures, roads, and utilities. Construction and demolition waste commonly includes concrete, wood, metals, drywall, carpet, plastic, pipe, cardboard, and salvaged building components. In some instances, construction and demolition waste may be subject to special requirements (e.g., materials containing asbestos).
- **Compostable Waste** includes both green waste and food waste. Green waste is also referred to as yard waste and generally consists of trees, shrubs, grass clippings, leaves, weeds, seeds, and similar debris generated by landscaping activities. Food waste is any food that is not consumed and includes food scraps discarded during meal preparation.
- **Deplaned Waste** is trash removed from passenger aircraft and can include bottles, cans, newspapers, magazines, plastic cups and utensils, food waste, and paper towels.

12.2.1. Sources and Pathways of Airport Waste

Each activity has its own set of waste streams that must be considered when implementing a sustainability and recycling program. The following waste streams are typically associated with smaller commercial and general aviation airports like Pocatello Regional Airport.[3]

- **Aircraft:** Maintenance of aircraft and ground support equipment produces a variety of waste products that can include grease, oil, universal waste (e.g., batteries), wastewater, plastics, and vehicle waste such as tires and fluids (e.g., brake, transmission, coolant).
- **Airfield:** The airfield, which includes the runways, taxiways, and the infields, generally only produces a few types of waste products. They can include waste produced from aircraft operations, such as rubber from aircraft tires, and green waste from mowing as well as miscellaneous debris from sweeping and plowing.
- **Airport Construction:** Construction activities have the potential to create a large amount of waste. The types of waste products produced typically include concrete, asphalt, building materials, wood, soil, construction equipment waste, miscellaneous debris, and regular trash.
- **Airport Offices and Pilot Lounges:** The types of waste products generated can include paper, toner cartridges, universal waste (e.g., electronics), food, paper, plastics, aluminum cans, and general trash.
- **Terminals:** As the heart of any airport complex, the terminal normally has the largest concentration of people, and this usually translates into the biggest concentration of waste. The terminal houses ticket counters, gates, and car rental counters as well as restaurants and restrooms that are frequented by both passengers and people employed at the airport. In addition, the terminal also houses office space and break areas for airline and airport personnel. The types of waste produced at a terminal are just as varied as the types of actives that take place there. Waste products can include food, paper, plastics, bottles and cans, restaurant grease and oil, universal wastes (e.g., batteries and fluorescent bulbs), green waste (e.g., landscaping), general trash, and deplaned waste.

12.3. Airport Recycling, Reuse, and Waste Reduction Plan

12.3.1. Scope

The content and scope of an airport recycling, reuse, and waste reduction plan varies depending on the unique conditions at each airport. For airports that already have recycling programs, certain tasks may not be needed.

Document scope is governed by the extent and accuracy of available information. This includes information on the airport's current recycling program, the types and amounts of airport waste, and factors that influence the scope of the program. Plans for small, low activity airports may also be less detailed. Though certain tasks may not need to be completed to prepare a plan, review and documentation of each of the five elements listed in the FAA Modernization and Reform Act is required in airport master plans and master plan updates (including sustainability master plans) (see also 49 U.S.C. § 47106(a) (6)).

This plan only addresses municipal solid waste, construction and demolition materials, and other waste materials that can be legally disposed of in a Subtitle D landfill. It does not address hazardous waste or universal waste (e.g., batteries, fluorescent bulbs, pesticides) because these materials are often subject to federal, state, and local laws with specific disposal and recycling requirements.

In this plan, recycling refers to reducing the amount of solid waste disposed of in a landfill through sustainable practices that include source reduction, reusing materials, or converting waste into reusable material (e.g., mulching or composting).

12.3.2. Recycling Feasibility

Pocatello Regional Airport is large enough and busy enough to generate sufficient recyclable materials to justify a recycling program. The Bannock County Solid Waste Division operates a landfill in Pocatello and a transfer station in McCammon that accept many types of waste. Additional infrastructure (bins), staffing, and funding may be needed to establish a recycling program and maintain it.

12.3.3. Plan to Minimize Solid Waste Generation at the Airport

The Airports Council International-North America Policy Handbook provides a waste decision hierarchy that shows—in order of priority—what constitutes the best overall waste management choices (Figure 12.2). These include to avoid, to reduce, to reuse, to recycle, and lastly, to dispose—with the ultimate goal of eliminating waste going to landfills.

Figure 12.2: Waste Decision Hierarchy

Source: Airports Council International-North America Policy Handbook.

While effective recycling and waste minimization is a problem faced by every airport, each airport has a unique set of conditions that must be considered as part of its individual recycling and waste minimization program. With this in mind, the FAA compiled a list of ten steps airports can take to design and implement an effective airport recycling and waste minimization program (Table 12.1).

Table 12.1: Effective Airport Recycling and Waste Minimization Programs

Step	Description
1	Commitment from Management
2	Program Leadership
3	Waste Identification
4	Waste Collection and Hauler
5	Waste Management Plan Development
6	Education and Outreach
7	Monitor and Refine
8	Performance Monitoring
9	Promote Success
10	Continuous Improvement

Source: FAA, Recycling, Reuse and Waste Reduction at Airports: A Synthesis Document

Pocatello Regional Airport will explore the following steps to help minimize solid waste generation:

1. Establish a commitment from management to support a recycling and waste minimization program.
2. Include lease and contract language that supports recycling and waste minimization.
3. Provide additional containers and space for recycling.
4. Educate airport staff and users about the importance of recycling and waste minimization.

12.3.4. Airport Operations and Maintenance Requirements

The airport's operations and maintenance requirements were examined in relation to sustainability and how waste is handled at the airport.

- **Aircraft:** The amount of aircraft waste correlates with the number of operations at the airport. The person responsible for aircraft and ground support equipment waste varies depending on the vehicle's owner and who performs the maintenance. The FBO and maintenance shop are responsible for aircraft maintenance waste. Some waste associated with maintenance is considered hazardous waste and must be handled accordingly.
- **Airfield:** The infields are mowed regularly for habitat management and wildlife hazard mitigation and clippings are left in place. Sweeping of airfield pavements occurs weekly or more often when needed. Debris from sweeping is disposed of in a trash dumpster. When snow is plowed from airfield pavements, some dirt and grit are also removed as part of this process. The snow, along with any accompanying dirt and grit, is pushed, swept, or blown to the infield and the other undeveloped areas of the airport.
- **Airport Construction:** This waste stream increases during warmer months when construction typically occurs. The contractor is contractually responsible for waste associated with airport construction. They are also encouraged to reuse materials when possible.
- **Airport Offices and Pilot Lounges:** These waste streams usually consist of solid waste or compostables and are steady throughout the year.

12.3.5. Review of Waste Management Contracts

There are several trash bins located at the airport. Waste is collected from the bins and consolidated into four large containers where it is picked up weekly by the City of Pocatello Sanitation Department and taken to the county landfill.

12.3.6. Potential for Cost Savings or Revenue Generation

While recycling is voluntary in Pocatello, there is no additional cost to add recycling to curbside garbage cart services. The airport has opted in to recycling services and has three recycling bins that are picked up weekly by the City of Pocatello Sanitation Department. Currently, there is not enough recyclable material generated at the airport to produce any significant revenue generation or cost savings.

12.4. Conclusion

Pocatello Regional Airport has opportunities to enhance airport sustainability, recycling, and waste minimization by establishing formal policies and procedures. One opportunity to enhance sustainability is to reuse construction and demolition materials as much as possible and use locally sourced materials for construction projects.

Any program established at the airport should include a commitment from management to support sustainability, recycling, education and outreach, setting performance targets, monitoring progress, and seeking continuous improvement. Benefits gained from establishing a recycling and waste minimization program include:

- Reduced operating costs.
- Prolonged use of limited landfill space.
- Reduced environmental liability.
- Improved public perception of the airport.

Endnotes

1 City of Pocatello. Community Development Services. "Comprehensive Plan 2040." Pocatello, Idaho. July 6, 2023. https://pocatello.gov/DocumentCenter/View/318/Comprehensive-Plan-2040-PDF.

2 U.S. Environmental Protection Agency. "Basic Information about Landfill." April 4, 2022. https://www.epa.gov/landfills/basic-information-about-landfills.

3 U.S. Department of Transportation. Federal Aviation Administration. "Recycling, Reuse and Waste Reduction at Airports, A Synthesis Document." Office of Airports Federal Aviation Administration. April 24, 2013. https://www.faa.gov/airports/resources/publications/reports/environmental/media/recyclingsynthesis2013.pdf.