

TAMPA INTERNATIONAL AIRPORT

Sustainable Management Plan



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Sustainable Management Plan

SEPTEMBER 2014

PREPARED FOR:

Hillsborough County Aviation Authority

PREPARED BY:



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CHAPTER 1

Sustainability at Tampa International Airport

In 2013, the Hillsborough County Aviation Authority (the Authority) was awarded a Federal Aviation Administration (FAA) grant to develop a Sustainable Management Plan for Tampa International Airport (the Airport) under the FAA's Sustainable Master Plan Pilot Program. The FAA's intent for the Pilot Program is to make sustainability a core objective in the airport planning process by providing funding so airport operators can develop comprehensive sustainability plans inclusive of initiatives for improving environmental performance, achieving economic benefits, and increasing connections and engage with local communities.

At the time the Tampa International Airport grant was awarded, the Authority was completing its Airport Master Plan Update that outlined a 20-year development program. Participation in the Pilot Program offered the Authority the opportunity to strategically plan for how sustainability can be integrated into the future development and operation of the Airport.

Hillsborough County Aviation Authority

The Authority is an autonomous unit of County government that operates all publicly owned aviation facilities within Hillsborough County. Among the four airports operated by the Authority, Tampa International Airport is the largest, and the only airport offering commercial service.

What is Sustainability?

Numerous organizations, institutions, agencies, and others have defined the concept of sustainability. Fundamentally, the definitions emphasize a triple-bottom line of social, environmental, and economic responsibility in organizational decision making. Sustainability is about making decisions that meet our needs today without compromising the ability to meet our needs, and future generation's needs, in the future. It is more than just "being green." It means planning ahead and thinking holistically about the social, economic, environmental, and operational elements of business at the Airport.

Simply put, sustainability means being responsible to:



our
PEOPLE

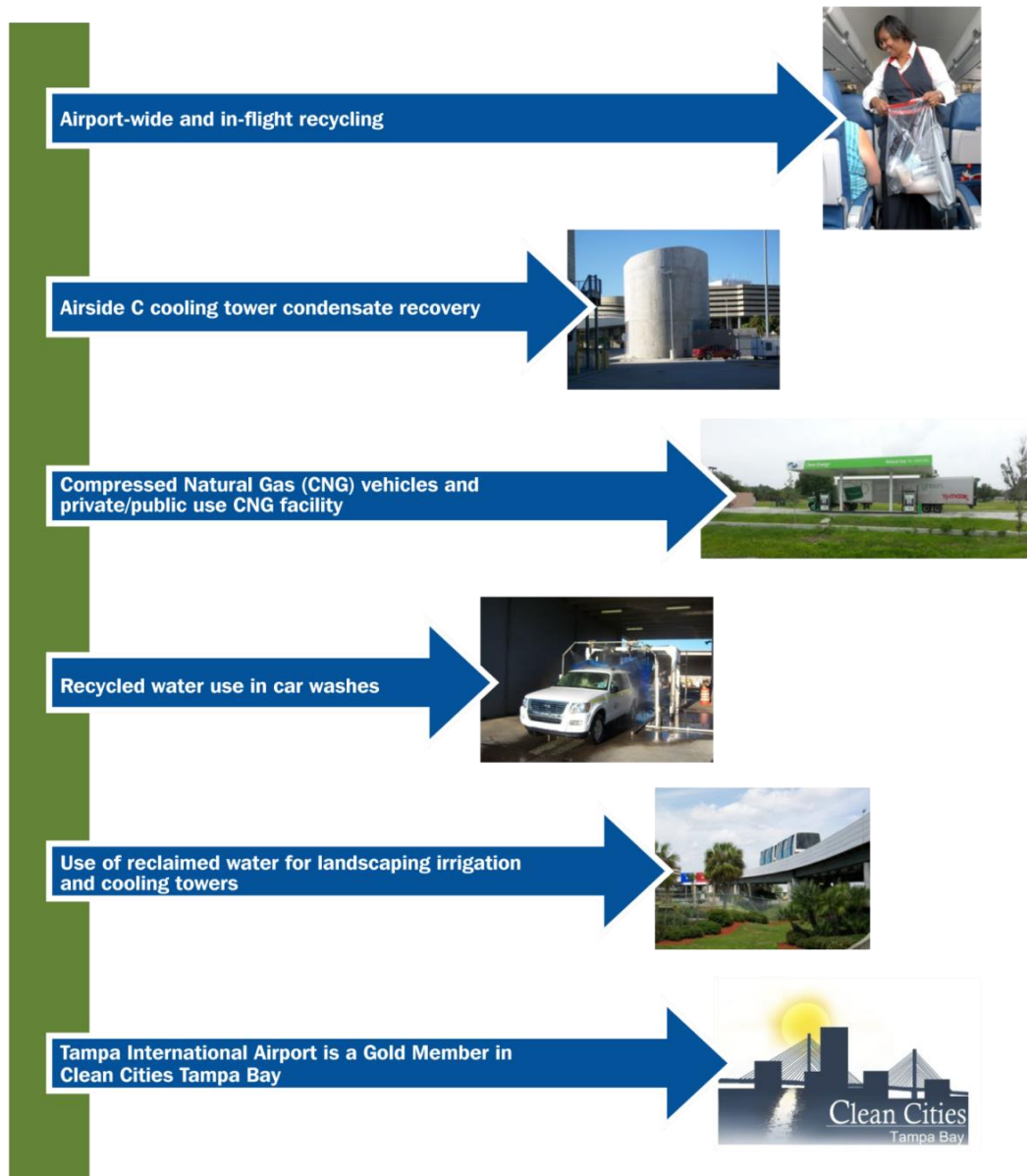


our
PLANET



and our collective
PROSPERITY

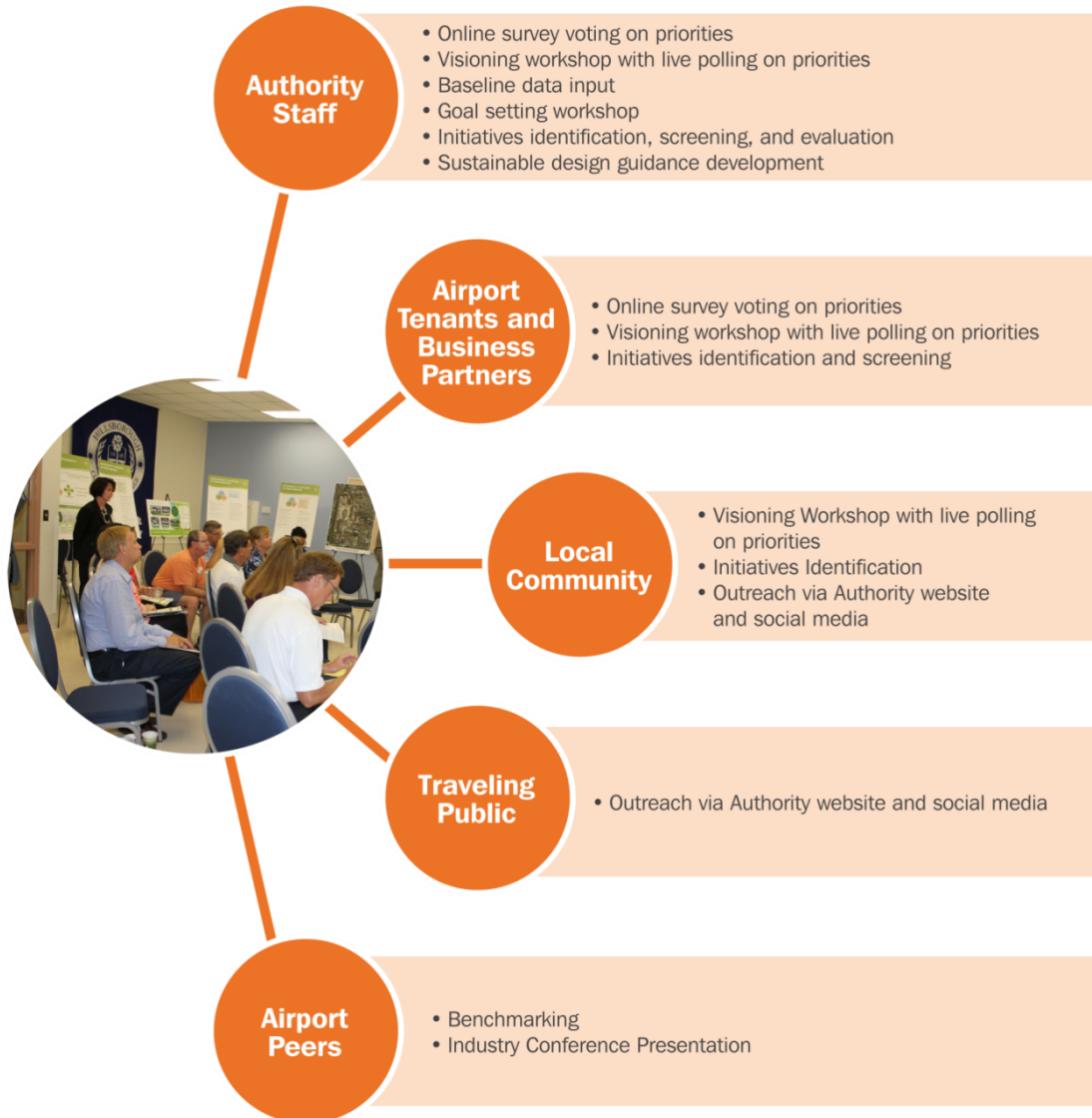
Sustainability is not new to Tampa International Airport. The Authority has already made great strides with a number of sustainability initiatives, such as the Airport-wide recycling program, use of reclaimed water for irrigation and cooling towers, and use of alternative fuels for fleet vehicles. A few notable achievements are summarized here, and more detailed lists of sustainability achievements are highlighted in Chapter 3.



The Authority's Sustainable Management Plan

As the Authority embarks on implementing the recently completed Airport Master Plan's 20-year development program, this Sustainable Management Plan will guide the Authority's approach to valuing people, planet, and collective prosperity in the ongoing development and operations of the Airport.

Led by the Ricondo & Associates Consultant Team, the Authority collaboratively defined a Sustainability Program with input from its stakeholders that integrates sustainability into the design and construction of the development program and also integrates sustainability into the day-to-day operations of the Airport through specific initiatives and new processes. The image below illustrates how the Authority staff and stakeholders were engaged throughout the project.

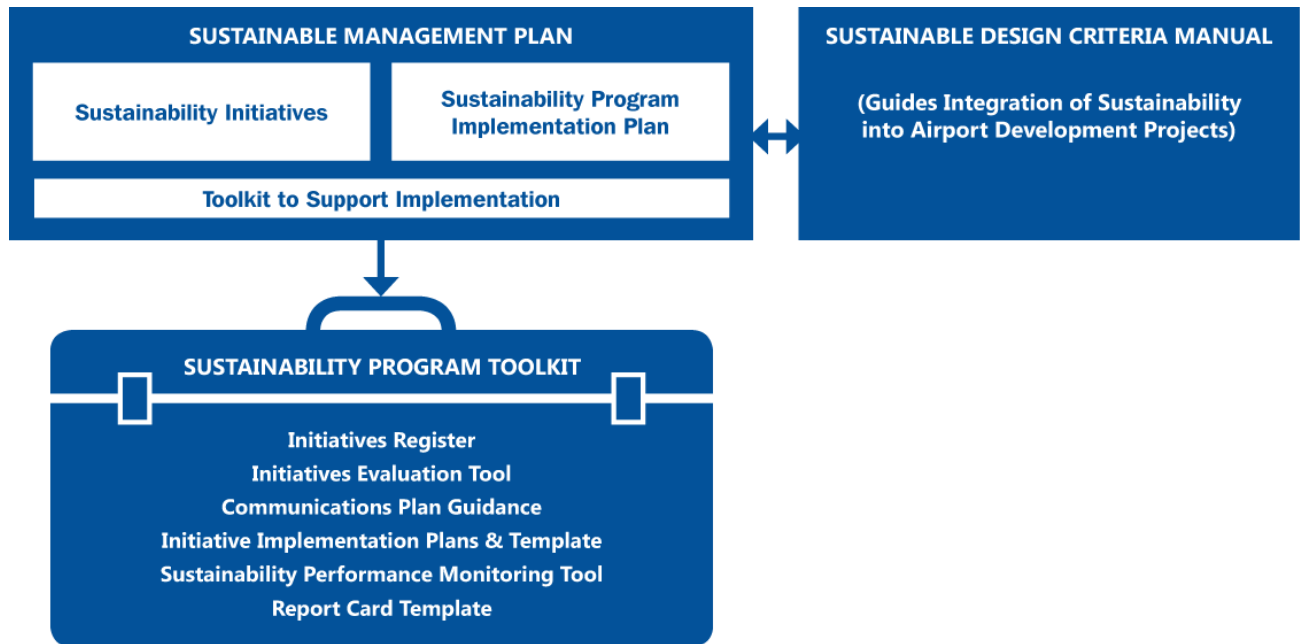


The 12-month planning project was conducted over two distinct phases. In Phase 1, the context for sustainability planning was established (e.g., sustainability priorities, baseline, and goals). A Sustainability Program was then defined in Phase 2 to guide the Authority’s achievement of its sustainability aspirations.

Phase 1—Setting the Sustainability Planning Foundation



Phase 2—Defining the Sustainability Program



This Sustainable Management Plan defines the context for the Authority’s Sustainability Program (Chapters 2 through 4), the sustainability initiatives the Authority plans to implement (Chapter 5), and the Implementation Plan to guide Sustainability Program implementation (Chapter 6).

Sustainable Management Plan Companion Materials

Supporting the Sustainable Management Plan, a number of associated reports, documents, and tools were developed as part of the project, as indicated on the previous inset graphic. The following companion materials were developed and are referenced in later chapters of this report:

- The **SUSTAINABLE DESIGN CRITERIA MANUAL** is a standalone document that provides guidance on integrating sustainability into Airport development projects. Key features of the Manual include topic-focused fact sheets that define sustainable design strategies supporting the Authority's sustainability goals for consideration by the Authority's design teams and tools to track sustainable design intent, achievements, and challenges.
- The **SUSTAINABILITY PROGRAM TOOLKIT** contains a series of Excel spreadsheets developed for the Authority's use to implement the Sustainability Program. The tools are referenced in later chapters of this report, and each tool includes instructions for its use and other background information on the first tab of the spreadsheet. Tools developed as part of the Sustainable Management Plan include the following:
 - The **INITIATIVES REGISTER** is a listing of candidate sustainability initiatives. Implementation of some of these initiatives is being planned as part of the Sustainable Management Plan, while other initiatives are retained in the Register for future consideration. The Initiatives Register tool also provides instructions to update the Register in the future with new initiatives.
 - The **INITIATIVES EVALUATION TOOL** is a spreadsheet for use in future evaluations of candidate initiatives, a version of which was employed to evaluate and select initiatives for implementation in the Sustainable Management Plan project. The evaluation tool can be adapted in the future as the Authority's sustainability priorities evolve.
 - The **COMMUNICATIONS PLAN GUIDANCE** provides information and a template for use in supporting the development of future communications and messaging activities.
 - The **INITIATIVE IMPLEMENTATION PLANS & TEMPLATE** provide draft implementation plans for the Authority's sustainability initiatives selected for implementation as part of the Sustainable Management Plan as well as a template for future implementation plan development.
 - The **SUSTAINABILITY PERFORMANCE MONITORING TOOL** is a spreadsheet formatted to track the Authority's sustainability metrics and monitor progress towards achieving sustainability targets.
 - The **REPORT CARD TEMPLATE** provides information on sustainability reporting and a template format to report performance. Data and information for the report card will be compiled in the **Sustainability Performance Monitoring Tool** and captured during implementation of the **Sustainable Design Criteria Manual**.

- The **SUSTAINABLE MANAGEMENT PLAN PROJECT TECHNICAL MEMORANDA** is a report format compilation of Technical Memoranda documenting the development of the Sustainable Management Plan, including project approach; collaboration among Authority staff, Airport stakeholders, and the Consultant Team, and conclusions that lead to the development of the information presented in the Sustainable Management Plan and its companion materials.

CHAPTER 2

Sustainability Program Foundation

The Sustainable Management Plan is informed by Authority staff and Airport stakeholders' current vision of a sustainable future Airport and bounded by the activities addressed within this Sustainable Management Plan. This context for the Sustainability Program reflects current conditions and stakeholder interests. As conditions and interests evolve, it is expected that the Authority's Sustainability Program will adapt and change.



Authority staff contributed to the development of a vision statement for the Sustainability Program. The vision statement, highlighted below, will be communicated on sustainability materials used both internally and externally. Consistent, clear, and repeated inclusion of the vision statement on materials, ranging from subtle to prominent emphasis, will serve as a constant reminder of the intended outcome of the Authority's Sustainability Program.

Vision for a Sustainable Tampa International Airport

To be world-class leaders in promoting prosperity for the Tampa Bay region through efficient, responsible growth, while cherishing the natural beauty and quality of life in our community.

Focus Areas

To achieve this vision of sustainability, the Authority initiated development of the Sustainable Management Plan, which involved the Authority's first holistic look at integrating sustainability into the development and operation of the Airport. Development of the Sustainable Management Plan was concentrated on three primary focus areas—facility planning, design and construction, and Authority operations and maintenance.

Authority staff actively participated in plan development, particularly those with responsibilities in the focus areas, by providing input via in-person meetings, web-based meetings, teleconferences, online surveys, workshops and working meetings, and review comments on various materials.

As the Authority builds experience with implementing its Sustainability Program, it may consider expanding the focus of the program to areas such as concessions and tenant operations.

The Authority's Sustainability Priorities

A primary outcome of the early stakeholder engagement during plan development was the identification of sustainability priorities, or sustainability issues most important to the Authority and other Airport stakeholders. These priorities serve as the foundation for the Sustainable Management Plan. An assessment of input received from Authority staff, Airport tenants and business partners, and the public via online surveys, live interactive polling, and facilitated workshops yielded a set of seven sustainability priority topics. The seven topics, presented below, are generally grouped along the triple bottom line for the Authority—people, planet, and prosperity—although select topics tend to contribute to more than one area. For example, reducing electricity use under the Energy Management priority topic provides a direct economic benefit to the Authority (i.e., reduced energy costs), while also reducing greenhouse gas emissions generated during the production of electricity (i.e., “planet” benefits).

Similar to the focus areas, as the Authority improves sustainability performance in one or more of these sustainability topics, or as conditions and issues change over time, priorities for the Sustainability Program are expected to evolve.

Focus Areas

Facility Planning

- Airport Master Plan Update
- Advanced Planning

Design & Construction

- Sustainable Design and Construction

Maintenance & Operations

- Operations
- Maintenance
- Guest Services
- Human Resources
- Information Technology
- Marketing
- Procurement
- Safety and Security

Sustainability Priority Topics



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CHAPTER 3

Sustainability Baseline

This chapter provides an overview of Tampa International Airport and its sustainability performance for current conditions, represented by the year 2011 (baseline conditions), where data are available, and 2021 (future “business-as-usual” conditions). The year 2011 is consistent with the baseline year for the Airport’s recently completed Airport Master Plan Update, which outlines Airport improvements to meet aeronautical demand, better serve passengers, airlines, and other tenants as well as regional tourism, transportation, and business growth for the next 20 years. Sustainability data are projected, where meaningful, for the year 2021, representing future business-as-usual conditions with planned Airport Master Plan improvements in place and consistent with the Airport Master Plan’s 20-year planning horizon.

Performance Years

2011 represents current conditions, consistent with the recently completed Airport Master Plan baseline year

2021 represents future “business as usual” conditions, consistent with the Airport Master Plan’s 20-year planning horizon

Establishing current and future business-as-usual performance provides an understanding of the Airport’s performance today with respect to its sustainability priorities and provides an indication of how the Airport may perform in the future. During the project, goals were set and opportunities were identified to improve the Airport’s future sustainability performance, as documented in the remainder of this Sustainable Management Plan.

Airport Overview

Although the site has accommodated aviation activity since the 1930s, the Airport we think of today as Tampa International Airport got its start in 1971 with the opening of the terminal complex. Over the past four decades, both aviation activity and the Airport facilities to support that activity have grown. Today, the Airport is an essential part of the Tampa Bay area community and is central to the area’s economic vitality.

Commercial air service is the primary aviation activity at the Airport. The national recession, changes in the airline industry, and the BP oil spill in the Gulf contributed to a 14 percent decline in passenger activity at the Airport over three consecutive years, beginning in 2008 and hitting bottom in 2010 at 16.6 million

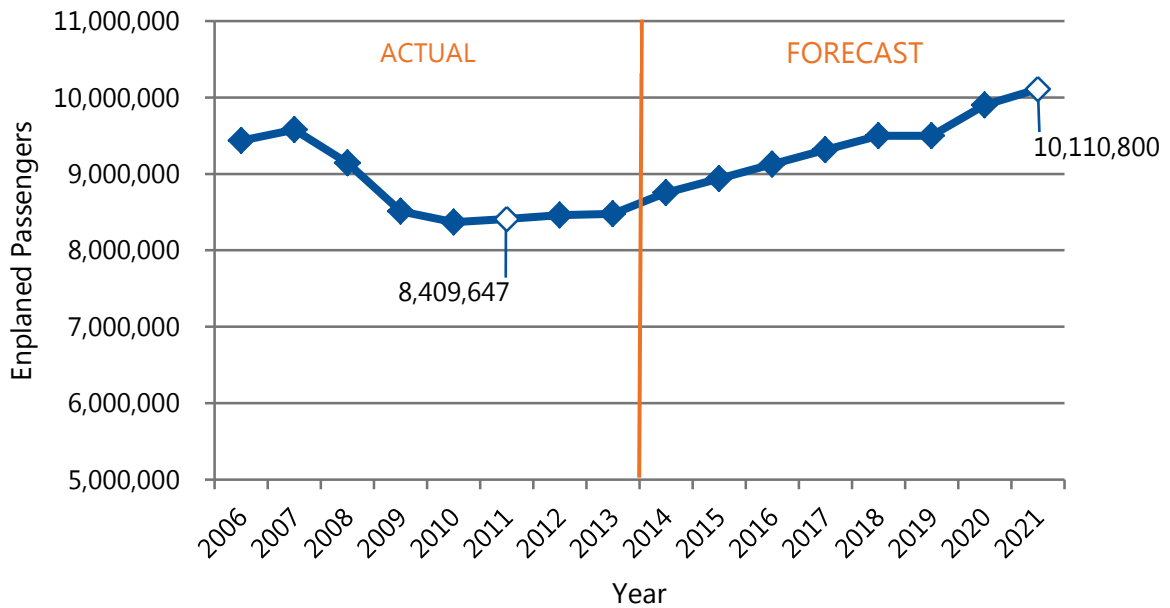
passengers.¹ Since then, the Airport has experienced a gradual recovery at 1–2 percent annual passenger growth.

Actual and forecast annual enplaned passengers (i.e., total number of passengers departing on flights from the Airport) are shown in the graph below, with 2011 and 2021 total enplaned passengers highlighted. Enplaned passengers are roughly half of the total passenger activity at the Airport, and in comparison with the other half—deplaned, or passengers arriving on flights—represent the segment of air travelers that put the greatest demand on Airport facilities. As such, quantitative performance data presented in this chapter are often characterized on a “per enplaned passenger” basis to account for the dependency of facility and utility needs on passenger activity.

2011 Airport Statistics

- 46,000** daily passengers traveling through Airport (approximately)
- 3,300**-acre campus
- 3** runways ranging from 7,000 to 11,000 feet in length
- 59** aircraft gates on **4** airside buildings
- 23,000** public parking spaces (approximately)

Annual Enplaned Passengers (Actual and Forecast)



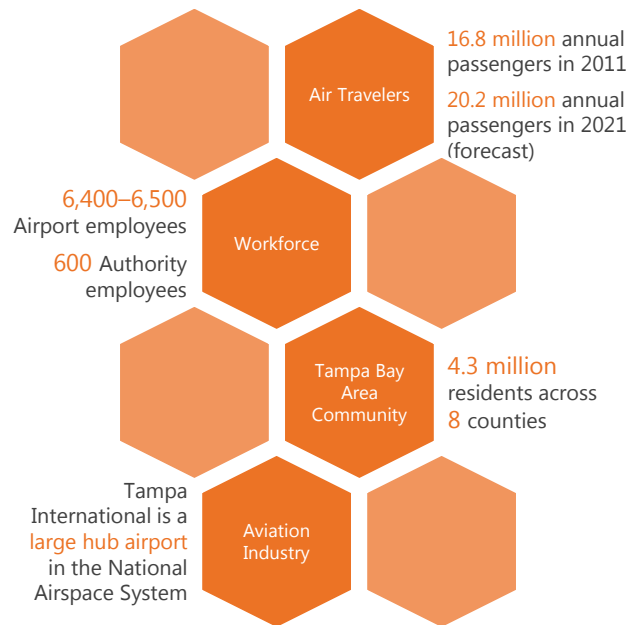
SOURCE: Hillsborough County Aviation Authority, *2013 Strategic Business Plan*, November 2013.
 PREPARED BY: Ricondo & Associates, Inc., April 2014.

¹ Hillsborough County Aviation Authority, *2013 Strategic Business Plan for Tampa International Airport*, November 2013.



Community Baseline

Shown on the inset graphic, many people within one or more of the Airport's communities have a direct or indirect interest in what happens at the Airport. These people belong to one or more of the Airport's communities, and are, therefore, important stakeholders providing context to this plan. Air travelers and the Airport workforce directly experience the Airport as a place, while the presence of the Airport and its activities both directly and indirectly influence the local Tampa Bay area community as well as the local, regional, and state business community. Finally, the Airport plays an important role in the broader aviation industry community.



The Airport's community "in numbers" paints a partial picture of the Airport's community impact. The impact of the Authority's sustainability achievements can also be appreciated with respect to these various communities. A successful sustainability program will be rooted in the communities' shared experiences and interests with the Airport—the collective beneficial path forward for the Airport's communities and the Airport itself.

Sustainability Achievement Highlights

- ▶ The Authority implemented a guest services program in 2012 that engages the community with the Airport. Local volunteers, typically retirees and students, staff four visitor information booths. In 2013, the Authority had **145 Volunteer Ambassadors** that provided **22,000 hours of service**.
- ▶ In recognition that the health, happiness, and overall well-being of employees affect work performance, the Authority contracts with an employee assistance and work/life company to offer **employee health and well-being services** to support issues such as depression, anxiety, conflicts, substance abuse, and grief.
- ▶ The Authority **sponsors community events**, including the Florida Strawberry Festival; the annual Planes, Trains, and Automobiles event; Sun 'n Fun; and Islands Fest; and **hosts an annual 5K Runway Fun Run**. The beneficiary of the fun run is the United Way Suncoast, which creates education, income, and safety net programs.
- ▶ The Authority has placed emphasis on offering **locally based concessions** to instill a sense of place at the Airport. Local options include The Columbia Café, Green Iguana, Cigar City Brewpub, and First Flight.
- ▶ Given the substantial economic benefits of tourism, the Authority participates in organizations that **support and promote tourism, air service, and increased travel** to Florida including the Gateway Airport Council of the U.S. Travel Association, VISIT Florida, and VISIT Tampa Bay.
- ▶ Authority staff participate in **industry conferences**, including presenting at the 2013 Airports Going Green conference during a case study session on "Partnerships Revealed."



Health, Safety, and Security Baseline

The Authority actively supports health, safety, and security throughout the Airport community. Fire rescue services are shared with the City of Tampa, and the Authority maintains its own Airport Police Department. In addition to the health, safety, and security of people using the Airport, the Authority proactively manages the safety and security of Airport data through the Information Technology Services Department.

Sustainability Achievement Highlights

- ▶ Preparing for operational continuity, the Tampa Fire Rescue maintains current training required by the FAA for its **38 Airport fire rescue staff** as well as for an **additional 55–60 staff** among citywide Tampa Fire Rescue units.
- ▶ The Airport Police Department is accredited through the **Commission on Accreditation for Law Enforcement Agencies (CALEA)**. CALEA is a management model promoting improved law enforcement services through professional standards.
- ▶ The Authority generates a **Public Safety and Security Department Annual Report**, which is available online. The annual report covers topics such as departmental goals, annual crime statistics, staff training, and community service.
- ▶ Tampa Fire Rescue extends **CPR training** to all Authority employees whose duties place them in public areas of the Airport.
- ▶ The Authority administers a community-based partnership program modeled on the neighborhood watch concept. Through the **Airport Watch Program**, the Airport Police Department educates the Airport community on how to actively watch for and report suspicious persons and activities.
- ▶ The Authority donates unclaimed clothing from the lost and found to the Vietnam Veterans of America Chapter 787 in Tampa. As of 2013, the Authority has **donated over 420 items**.
- ▶ The Airport Operations Department **actively manages potential wildlife concerns** on the airfield through twice daily perimeter checks and habitat monitoring.
- ▶ The Authority is developing and implementing a new **software application to support FAA inspections** that check if an airport is meeting certain operational and safety standards (referred to as Part 139 inspections), and the Authority has plans to expand the software application to support Safety Management System (SMS) implementation.



Natural Systems Baseline

The Authority and the community cherish the natural environment of the Tampa Bay area, and the protection of these resources—the air, the water, the biodiversity of native plant and animal species—is vital for a sustainable community. These environmental resources are the subject of numerous local, state, and federal environmental regulations, with which the Authority actively manages compliance.

AIR

Hillsborough County meets federal standards for all air pollutants regulated by the U.S. Environmental Protection Agency with the exception of lead and sulfur dioxide. The area of concern, or “nonattainment area,” within the County related to lead and sulfur dioxide is located approximately 8 miles from the Airport. Local noncompliance with these standards is attributed to battery smelting and other industrial activities unassociated with Tampa International Airport.

Greenhouse gases (GHG) are gases, such as carbon dioxide, methane, nitrous oxide, and fluorinated gases that trap heat in the atmosphere and thus contribute to global warming. They enter the atmosphere through burning of fossil fuels, solid waste, and trees and wood products; through certain chemical reactions and manufacturing operations, such as cement manufacturing; through a variety of industrial processes; and from use of refrigerants, aerosol propellants, solvents, and fire retardants. Plants absorb carbon and remove it from the atmosphere as part of the biological carbon cycle, in a process referred to as biological or carbon sequestration.

GHG emissions inventories were prepared for activities within the Airport boundaries for the years 2011 and 2021. The results are segregated into Scopes 1, 2, and 3 representing emissions “ownership” (e.g., those emissions under the jurisdiction and control of the Authority versus those produced by others, such as tenants) and reported in metric tons of carbon dioxide equivalent (mtCO₂e), consistent with industry practices.

Common sources of GHG emissions

- Aircraft
- Aircraft ground service equipment and auxiliary power units
- Electrical consumption
- Motor vehicles
- Refrigerant usage
- Stationary combustion (e.g., boilers for heating)
- Solid waste generation, transport, and disposal

Greenhouse Gas Emissions (mtCO₂e)

SCOPE 1: DIRECT | GHG emissions from sources that are owned and controlled by the Authority, which may include Authority-owned and controlled stationary sources (such as boilers, emergency generators), as well as Authority-owned fleet vehicles using on-Airport roadways and associated areas.

SCOPE 2: INDIRECT | GHG emissions associated with the generation of electricity consumed by the Authority and its tenants.

SCOPE 3: INDIRECT & OPTIONAL | GHG emissions attributed to activities at the Airport but from sources that are not owned or controlled by the Authority, such as aircraft, passenger and tenant motor vehicles on Airport roadways, and emissions from other tenant activities.



SOURCE: KB Environmental Sciences, Inc., *Calendar Year 2011 and 2021 Greenhouse Gas Emissions Inventories: Draft Technical Report*, April 29, 2014.

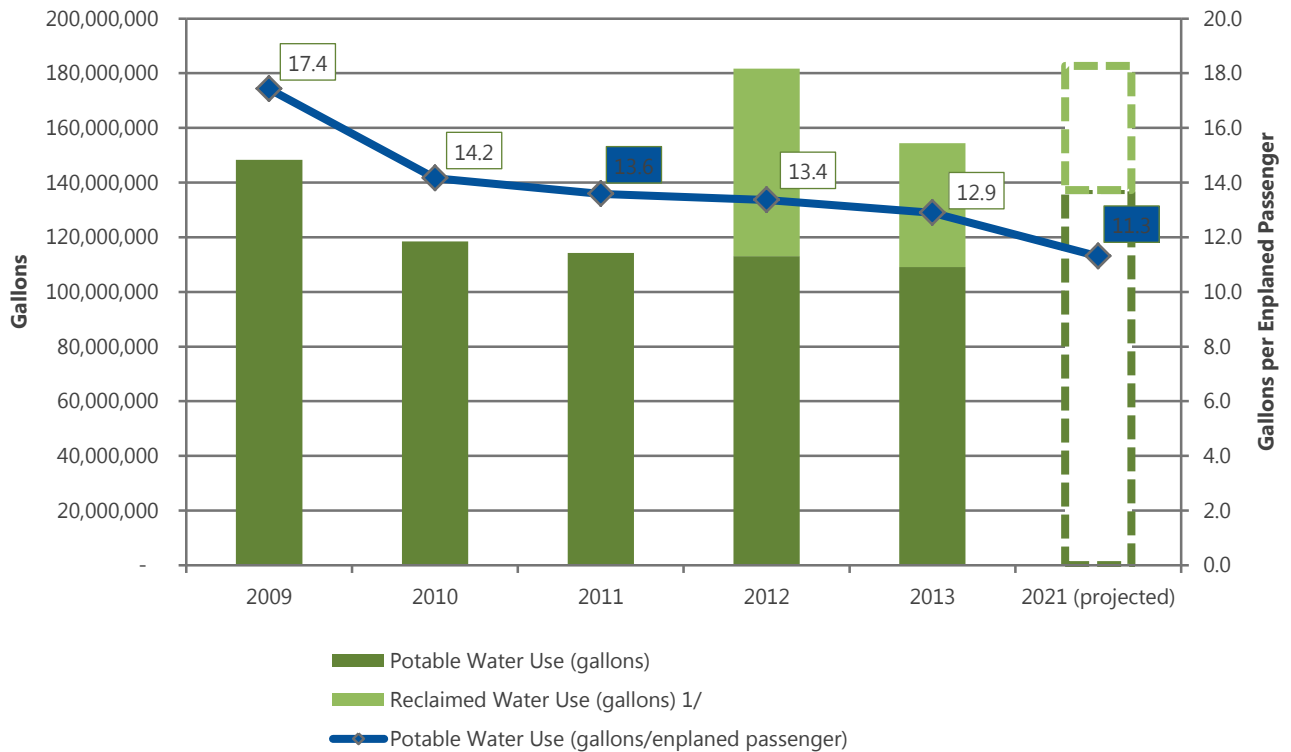
PREPARED BY: Ricondo & Associates, Inc., May 2014.

WATER

Water is a defining feature of the Tampa Bay area, and efficient use of the region’s water resources and protecting the quality of the region’s water sources are important to the Authority. The quality of stormwater discharges from the Airport is regulated and meets water quality standards. The City of Tampa supplies potable water (sourced from surface water, desalinated seawater, and groundwater) and reclaimed water to the Airport.

A water use performance data were collected for the 2011 baseline year and the 2021 future business-as-usual year, and is presented over time to illustrate recent water use trends.

Annual Potable and Reclaimed Water Use
(Total Gallons and Gallons per Enplaned Passenger)



NOTE:

(1) Although the Authority began using reclaimed water in 2010, data on reclaimed water use in 2010–2011 were not available.

SOURCES: Hillsborough County Aviation Authority, water use records, 2009–2013 (actual); Ricondo & Associates, May 2014 (2021 projected water use).

PREPARED BY: Ricondo & Associates, Inc., May 2014.

BIODIVERSITY

The natural environment of the Tampa Bay area is a draw for tourists—from the Gulf beaches to Tampa Bay, Florida’s largest estuary, with sea grasses, marshes, and mangroves, provide habitat for species such as fish, shrimp, crabs, birds, dolphins, sea turtles, and manatees. The Airport environment includes wetlands, forested areas, and landscaped areas, which the Authority manages to minimize wildlife attractant features that are not compatible with the operation of the Airport.

Sustainability Achievement Highlights

Air

- ▶ The Authority opened a **Cell Phone Lot** in 2009 to reduce curbside vehicle idling and congestion, and thereby lower emissions.
 - ▶ The Authority has converted over 35 percent of its fleet vehicles to **alternative fuel vehicles**, including CNG vehicles, bi-fuel vehicles (CNG or gasoline), electric carts, and hybrid vehicles. The Authority has plans to convert more than 70 percent of its fleet to CNG.
 - ▶ The Authority installed **electric vehicle charging** stations in the valet parking area and the Cell Phone Lot for public use, and in an airside location to support United Airlines' electric ground service equipment vehicle (GSE) fleet.
 - ▶ Clean Energy constructed and maintains a **CNG fueling station** near the Airfield Support Facility, supporting both Authority vehicle use and public CNG vehicle fueling.
 - ▶ **All aircraft gates** are served by a **hydrant fueling system**, which eliminates the need for transporting fuel by truck, and all gates have **pre-conditioned air (PCA)** and **ground power** to minimize the use of auxiliary power units (APUs) to condition aircraft while parked at the terminal.
 - ▶ **SunPass payment in parking garages** is offered to reduce vehicle idling at parking garage exit booths.
-

Water

- ▶ The Authority saves an estimated 3 million gallons per year of potable water use through the **recovery and reuse of condensate in the Airside C Cooling Tower**.
 - ▶ The Authority uses **reclaimed water in the Airside F Cooling Tower**. Given restrictions on potable water use during drought periods, use of reclaimed water ensures the Authority's ability to maintain a comfortable temperature in Airside F. It also reduces the amount of water on which the Authority pays sewage fees.
 - ▶ In 2010, the Authority began using **reclaimed water for irrigation** instead of potable water. As of 2012, 75 acres were irrigated by reclaimed water.
 - ▶ During public restroom renovation projects, **low-flow fixtures** are installed. As of 2013, all fixtures had been converted to low-flow (1.0 gallons/flush urinals and 1.6 gallons/flush toilets).
 - ▶ Rental car companies **recycle and reuse car wash water**.
-

Biodiversity

- ▶ The Authority has successfully completed two **onsite wetland mitigation projects**. One project was a storm water mitigation pond constructed in 2001–2002 that provides 1.86 acres of required mitigation. The second wetland mitigation project is the North Employee Parking Lot Pond, which provides 0.56 acres of required mitigation and was constructed in 2002–2003. The Authority actively manages both ponds.
 - ▶ The Authority uses **grass carp to control algae** in storm water facilities instead of chemicals.
-



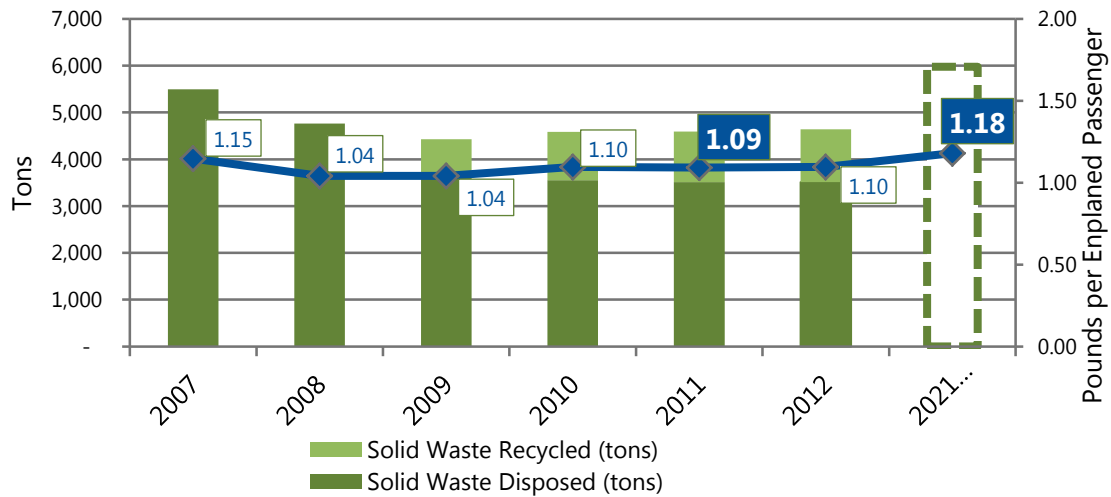
Waste Baseline

A waste/recycling opportunities assessment was conducted to document current waste management information and to provide recommendations for increasing waste diversion at the Airport. Waste diversion is defined as the volume of waste that is diverted from entering the waste stream for disposal through methods that may include source reduction or reuse, recycling, mulching, or composting.

Minimal waste from the Airport is sent to a landfill facility. The City of Tampa collects solid waste from the Airport and transports it to the McKay Bay Waste-to-Energy (WTE) facility, which processes up to 1,000 tons of municipal solid waste per day and has an electric-generating capacity of 22,000 kilowatts.² The City diverts waste that cannot be processed in the WTE facility (i.e., nonburnable waste, waste that may damage equipment, nonpermitted waste, or waste collected during a maintenance outage at the WTE facility or when the WTE facility reaches processing capacity) to the Hillsborough County Southeast Landfill.

The 2011 and 2021 solid waste performance data are presented over time to illustrate recent solid waste use trends.

Annual Solid Waste Disposal and Recycling Quantities (Total Tons and Pounds per Enplaned Passenger)



NOTE: The Authority developed and implemented a recycling program in 2009.

SOURCES: Hillsborough County Aviation Authority, solid waste and recycling records, 2007–2012 (actual); Ricondo & Associates, May 2014 (2021 projected solid waste).

PREAPRED BY: Ricondo & Associates, Inc., May 2014.

² Wheelabrator KcKay Bay Inc. (a Waste Management Company), <http://www.wheelabratortechologies.com/linkservid/56046D7A-5056-B35E-2CA28FD174C9DABF/showMeta/0/> (Accessed June 1, 2014).

The Authority developed and implemented a recycling program in 2009 that includes commingled collection and recycling in the Main Terminal and Airside buildings. In addition, the Authority and Airport tenants reuse and recycle many items, diverting them from the waste stream. By 2011, an estimated 24 percent of the solid waste stream was collected and recycled through the commingled recycling program.

Since the recycling program began in 2009, an increasing percentage of waste is diverted from the waste stream each year. Metrics the Authority tracks related to waste management include total solid waste disposed (in tons) by month and year, pounds per enplaned passenger by month and year, and estimated recycling tonnage for terminal operations by month and year, as well as estimated savings by month and year.

The *Waste/Recycling Opportunities Assessment Report* provides recommendations for improving the Airport solid waste and recycling program and focuses on opportunities to increase solid waste diversion. Many of the recommendations documented in the assessment are incorporated into this Sustainable Management Plan as sustainability initiatives (Chapter 5).

Waste Diversion*

Recycled Items

- Antifreeze
- Batteries
- Commingled paper, paperboard, newspapers, magazines, plastic, glass, aluminum and steel cans
- Cardboard
- Cooking oil
- Electronics and computers
- Fluorescent Bulbs
- In-flight items
- Oils and lubricants
- Refrigerants
- Scrap metal
- Shrink wrap and mixed plastics
- Tires
- Toner cartridges
- Whipped cream canisters

Reused Items

- Coffee grounds for composting
- Food donation
- Landscape waste for mulching
- Pallet reuse

*Items diverted from the waste stream by the Authority and/or Airport tenants and business partners.

Sustainability Achievement Highlights

- ▶ The Authority implemented a **recycling program** in 2009, and as of 2013, over 20 different items are diverted from the solid waste stream through reuse and recycling.
- ▶ HMS Host, the Airport's concessionaire, and the University of South Florida Botanical Gardens have entered into a **composting partnership** to collect coffee grounds from the Airport for use as compost at the Botanical Gardens.
- ▶ HMS Host **donates food** to Feeding America Tampa Bay. Over 11,000 meals, approximately 9,000 pounds of food, are donated per month. Donations are made 5 days per week.
- ▶ The Authority provides infrastructure to enable **in-flight recycling**. Participating airlines include Delta Air Lines, Southwest Airlines, United Airlines, JetBlue, American Airlines, and British Airways.



Build Green and Buy Green Baseline

In addition to exploring how to improve the sustainability of the Authority's operations and maintenance activities, the Authority is focusing specifically on how to improve the sustainability performance of future development and purchases.

BUILD GREEN

The Authority has taken actions to integrate aspects of sustainability and green building into ongoing development projects, and some actions are highlighted in other sections of this chapter (e.g., installation of low-flow fixtures for restroom renovation projects). The Authority does not comprehensively track sustainable design accomplishments nor are sustainable measures required during construction. As a result, there is not sufficient data or information to establish a baseline for the Build Green priority at the time of the Sustainable Management Plan project. As the Authority embarks on the development program outlined in the Airport Master Plan Update, the Authority endeavors to increasingly integrate sustainability into project design and construction.

BUY GREEN

The Authority created a Procurement Department in 2011 to centralize and standardize procurement activities. Procurement decisions are made through a low-bid process. Approximately 80 percent of everyday goods are procured through a state purchasing contract maintained by the Florida Department of Management Services, and the remaining 20 percent of goods are put out to bid. Professional services and design and construction services are procured through facilitated committee review of qualifications or proposals. Although sustainability language has been included recently in requests for qualifications and proposals, the Authority does not have a sustainable procurement policy or consistently employ sustainability criteria to guide procurement decisions for goods or services. As a result, data or information to establish a baseline for the Buy Green priority were not available at the time of the Sustainable Management Plan project.

Sustainability Achievement Highlights

Build Green

- ▶ The Authority developed a Design Criteria Manual to guide **sustainable design of the Main Terminal Modernization (MTM) program**.
- ▶ In 2010, the Authority developed a draft sustainable design manual that outlined a process to **integrate environmental sustainability into capital projects**.

Buy Green

- ▶ In 2011, the Authority created a **Procurement Department** to centralize and standardize procurement activities.
- ▶ One of the Authority's three printers is an **FSC-certified printer**. Printers that maintain FSC Chain-of-Custody certification provide assurance that the paper stock being used has been harvested in a socially and environmentally responsible manner.



Energy Baseline

A substantial component of an airport’s environmental footprint and cost are contributed to energy (electricity and fuel use). Energy is also a controllable expense that can benefit from initiatives that improve the overall environmental performance of the airport as reduce ongoing operational expenditures.

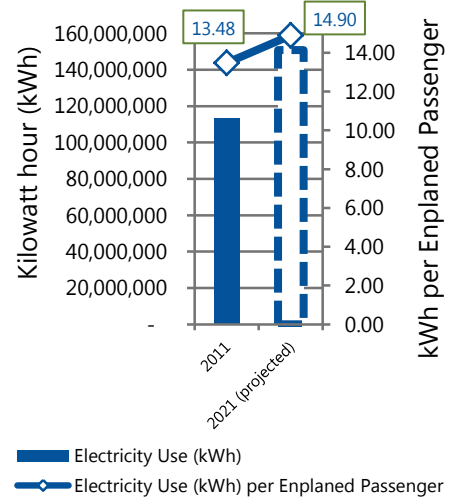
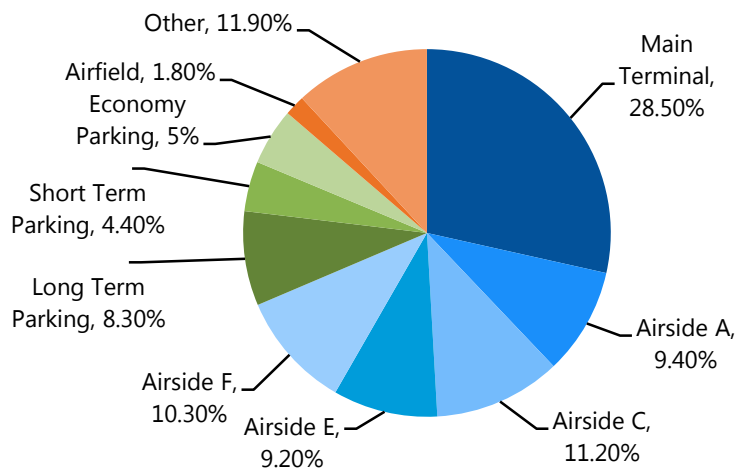
ELECTRICITY

The Authority’s utility budget, which includes electricity, accounted for over 14 percent of the total operating budget in 2011, compared with an average of 6.4 percent for large hub U.S. airports in the same year.³ With energy costs comprising a significant component of the Authority’s operating budget, an energy survey was conducted to evaluate the overall performance of existing facilities and identify means to improve energy efficiency.

The Main Terminal and the four Airside buildings collectively account for 70 percent of electricity use. Of these facilities, the Main Terminal building is both the largest consumer of energy at the Airport and the least energy efficient on a square foot basis, which can be attributed to factors including a high equipment load; retail and restaurant tenants with higher energy demands; elevators and escalators; baggage claim conveyor belts; outdated or inefficient heating, ventilation, and air conditioning (HVAC) systems; and infiltration of unconditioned outdoor air as people enter and exit the terminal building.

Electricity Use

(Percent Use by Facility [2012] and Annual Use [2011 and 2021])



SOURCES: Hillsborough County Aviation Authority, electrical use records, 2011–2012 (actual), Ricondo & Associates, Inc., May 2013 (projected).
 PREAPREP BY: Ricondo & Associates, Inc., May 2014.

³ Hillsborough County Aviation Authority, Budget for Fiscal Year 2011; and U.S. Department of Transportation, Federal Aviation Administration, Compliance Activity Tracking System (CATS), Airport Financial Reports, FAA-5100-127, as of March 5, 2014.

The most energy efficient Airside buildings on a square foot basis are Airsides C and E, relatively new facilities that opened in 2004 and 2002, respectively. Airside F, the oldest Airside building, opened in 1987 and has been renovated several times since, most recently in 2013. It is the least energy efficient facility of the Airside buildings. Collectively the parking structures consume approximately 16 percent of total Airport electricity use, primarily attributable to facility lighting. The garages generally do not allow daylight to effectively illuminate the interiors of the structures, and are illuminated by a combination of fluorescent and metal halide fixtures.

The *Energy Survey Report* identifies 17 Energy Conservation Measures (ECMs) for further investigation. Many of these ECMs became initiatives that are incorporated into the Sustainable Management Plan (Chapter 5).

FUEL

The Authority's vehicles and equipment use both petroleum-based and alternative fuels.

The Authority's Fleet by Fuel Type

Petroleum (Gasoline and Diesel)

- 44 fleet vehicles
- Landscaping equipment including 4 diesel Gators
- Heavy duty equipment (e.g., tractors, backhoes)
- Fire fighting vehicles
- EMS vehicles
- Several generators

Liquid Propane Gas (LPG)

- 1 generator

Compressed Natural Gas (CNG)

- 31 fleet vehicles including 15 shuttles and 6 employee buses

Bi-fuel (CNG/Gasoline)

- Several Authority fleet vehicles are bi-fuel, which were purchased because no 100 percent CNG vehicles were available at the time of purchase

Electricity

- 13 electric cart vehicles

Sustainability Achievement Highlights

Electricity

- ▶ The Authority started installing [LED lighting on the airfield](#) and in sign fixtures in 2009.
- ▶ [Airside F lighting replacement](#) converted high output (HO) fluorescent lighting to new ceramic metal halide (MH) lighting technology. MH lamps last 50 longer and have greater light output than HO fluorescent lamps.
- ▶ The Authority implemented improvements to the [building control system](#), including temperature setbacks, load shed programs, and lighting controls.
- ▶ The Authority implemented [non-peak baggage system energy conservation improvements](#), resulting in energy savings of approximately \$60,000 per year.

Fuel

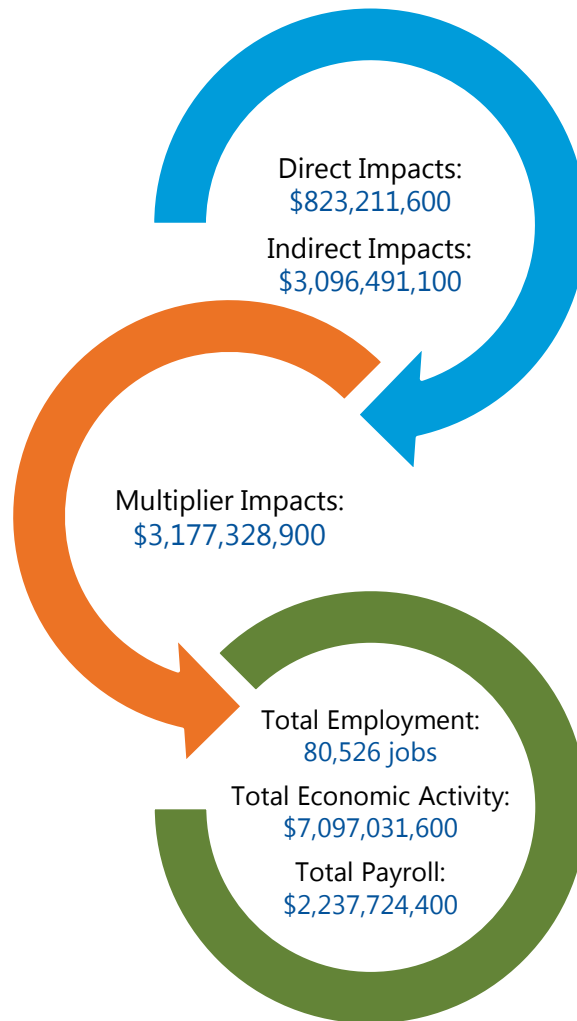
- ▶ The Authority has installed three [electric vehicle charging stations](#) for the public and high-capacity chargers to support United Airlines' electric ground support equipment on the airside.
- ▶ Florida's first [public/private CNG fueling station](#) was opened at the Airport in 2012. The station was constructed and is operated by Clean Energy and is located south of Hillsborough Avenue near the Airfield Support Facility.



Regional Economic Baseline

The Airport generates economic benefits associated with spending on commercial passenger travel, including visitors to the Tampa Bay area, cargo transport, employment at the Airport, among other activities. The Florida Department of Transportation completed an economic impact study of Florida airports in 2010, and concluded that Tampa International Airport created over 80,000 jobs and generates over \$7 billion in total economic activity, with a total payroll of \$2.2 billion.

Tampa International Airport Economic Impact (2010)



SOURCE: Florida Department of Transportation, *The Economic Impact of Tampa International Airport*, March 2010.
 PREAPRED BY: Ricondo & Associates, Inc., May 2014.

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CHAPTER 4

Sustainability Goals and Performance Targets

Based on the Authority’s sustainability accomplishments, baseline performance, and history of tracking performance data relevant to sustainability priorities, Authority staff established a mix of quantitative and qualitative goals and related performance targets to gauge progress towards goal achievement. The goals are organized by the triple-bottom line of people, planet, and prosperity, and by the Authority’s seven sustainability priorities.



Goal Statements by Priority Topic



PEOPLE

Health, Safety, and Security

Enhance the health, safety, and security of the Airport community

Reassess disaster recovery plans in the context of changing circumstances (such as new facilities and evolving technology)

Ensure safe and secure information technology and data systems

Community

Inspire sustainability actions throughout the Airport community

Create a learning Airport community focused on continual improvement

Exceed the expectations of our customers for a sustainable Airport experience

Enhance links between the Airport and the Tampa Bay area community

Support regional planning interests



PLANET

Natural Systems Management

Reduce greenhouse gas emissions (Scopes 1 and 2) on a per passenger basis by 5 percent by 2021 (compared with a 2011 baseline)

Reduce potable water use on a per passenger basis by 10 percent by 2021 (compared with a 2011 baseline)

Establish a target percent for low-maintenance, non-wildlife attracting species for each project involving landscaping

Provide opportunities for people to experience the Tampa Bay area’s natural environment

Waste Management

Reduce, reuse, and recycle to reduce the solid waste disposed on a per passenger basis by 10 percent by 2021 (compared with a 2011 baseline)

Encourage zero-waste zones within the Airport campus

Build Green and Buy Green

Design and construct more environmentally responsible and energy efficient facilities using industry best practices and systems

Promote sustainable procurement throughout the TPA community



PROSPERITY

Energy Management

Reduce electricity consumption on a per passenger basis by 3 percent by 2021 (compared with a 2011 baseline)

Pursue strategies to reduce petroleum fuel use

Promote the use of renewable energy sources over traditional energy sources

Regional Economic Impact

Pursue strategies to increase tenant revenues

Support local, regional, and state efforts in attracting new business to the community

Prioritize and implement financial flexibility through cost containment, access to capital, and contingency planning

To track progress towards goal achievement, the following 15 performance metrics and activities will be tracked:



Health, Safety, and Security

- Annual review of changing circumstances (e.g., facilities, technology) that may affect existing disaster recovery plans; identification of plans in need of updates/revision; and summary of plans that have been updated



Community

- Annual summary of community (e.g., agencies, local community, travelers, industry) outreach activities on the topic of sustainability
- Annual summary of Authority participation in/support of regional planning efforts



Natural Systems Management

- Annual or biennial greenhouse gas emissions inventory update, with a performance target of 5 percent reduction of greenhouse gas emissions (Scopes 1 and 2) on a per passenger basis by 2021 (compared with a 2011 baseline)
- Ongoing tracking of potable water use, with performance target of 10 percent reduction by 2021 (compared with a 2011 baseline)
- Annual summary of activities completed that connect customers with Tampa Bay area's natural environment



Waste Management

- Annual tracking of solid waste disposed per passenger, with a performance target of 10 percent reduction on a per passenger basis by 2021 (compared with a 2011 baseline)
- Annual summary of activities encouraging zero-waste zones



Build Green and Buy Green

- Annual summary of documented lessons learned and sustainable design achievements through the implementation of the Sustainable Design Criteria Manual (SDCM)
- Development of a sustainable procurement policy by 2015



Energy Management

- Annual tracking of electricity use per passenger, with a performance target of 3 percent reduction on a per passenger basis by 2021 (compared with a 2011 baseline)⁴
- Annual tracking of petroleum fuel use

⁴ The Authority is currently working with Tampa Electric Company (TECO) and Automated People Mover (APM) project engineers to assess the electricity demand of the APM installation, as well as how best to manage that demand with respect to local grid utilization. Concrete estimates of this demand are forthcoming and hence the listed goal should be considered a working goal, pending adjustment as the APM planning process proceeds.

- Annual tracking of energy generated on Airport through renewable energy sources



Regional Economic Impact

- Annual summary of Authority activities to support local, regional, and state efforts in attracting new business to the community
- Annual summary of actions towards incorporating life-cycle costing into capital project decision making, including examples or case studies where applicable, and formal incorporation of life-cycle costing into capital project decision making by 2021

In addition to the above actions and performance metrics identified to track overall progress of the Sustainability Program, the Authority will track performance metrics associated with the individual initiatives identified for implementation. A process for defining and tracking these metrics is included in the [INITIATIVE IMPLEMENTATION PLANS & TEMPLATE](#) tool.

The [SUSTAINABILITY PERFORMANCE MONITORING TOOL](#) provides a template for the Authority's use in tracking performance data to support the Authority's sustainability goals.

The data and information tracked in the Sustainability Performance Monitoring Tool, then, provides the basis for the Authority's sustainability performance reporting. The [REPORT CARD TEMPLATE](#) provides a suggested format and best practices for sustainability reporting to stakeholders.

Sustainability Program Toolkit

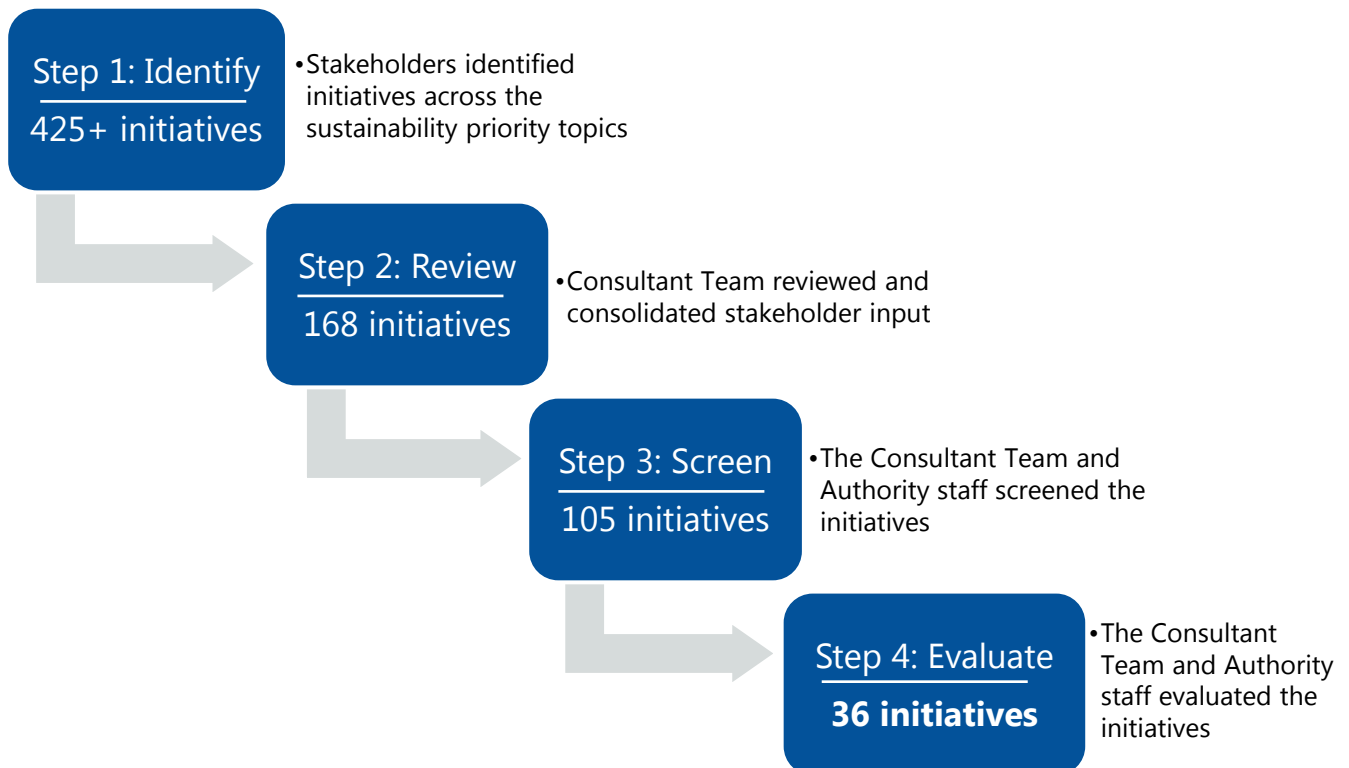
The Initiative Implementation Plans & Template, Sustainability Performance Monitoring Tool, and Report Card Template are included as part of the Sustainability Program Toolkit.

CHAPTER 5

Sustainability Initiatives

Hundreds of initiatives were identified during the project to improve the Authority's sustainability performance and meet its sustainability goals, with the list eventually narrowed to 36 initiatives the Authority plans to implement.

As a first step in the initiative identification and evaluation process, over 425 initiatives were identified collaboratively with Authority staff, stakeholders, and the public, primarily during the early visioning workshops. Second, the initiatives were reviewed—similar actions were consolidated and new initiatives, based on experience at other airports and in other industries, were added. Through this review, the list was distilled to 168 initiatives. In a third screening step, Authority staff and the Consultant Team reviewed and screened the resulting 168 initiatives to identify those initiatives that were not feasible. Authority staff also identified additional opportunities to consolidate initiatives, thus reducing the draft list to just over 100



initiatives. In a fourth and final step, the initiatives were evaluated qualitatively against criteria representative of the Authority's sustainability goals, and 36 top-ranking initiatives were identified for implementation.

The 36 initiatives the Authority plans to implement are listed on the following pages, along with an indication of which sustainability priorities benefit from implementation of the initiative. Notably, initiatives often provide multiple benefits. More detail on each initiative, such as specific tactics the Authority will consider when implementing the initiatives, are provided in the [INITIATIVES REGISTER](#).

Sustainability Program Toolkit

The Initiatives Register is included in the Sustainability Program Toolkit.

Sustainability Initiatives

		Health, Safety, and Security	Community	Natural Systems Management	Waste Management	Build Green and Buy Green	Energy Management	Regional Economic Impact
PEOPLE	Develop an employee fitness program for all Airport workers (HCAA and tenants)							
	Evaluate infrastructure resiliency and assess ability to operate without support from non-Airport systems (e.g., energy, water, waste disposal)							
	Conduct a resiliency assessment							
	Develop a sustainability employee engagement program to cultivate a culture of sustainability and innovation							
	Partner with regional and industry organizations to further the mutual pursuit of sustainability							
	Proactively support regional efforts to improve connectivity between the Airport and the local/regional community							
	Engage the traveling public in sustainability							
PLANET	Develop an action plan that provides a long-term roadmap for reducing GHG emissions							
	Consider incorporation of rainwater harvesting into new construction and major renovation projects							
	Develop a low-impact landscape maintenance program							
	Consider opportunities to integrate natural elements into facilities							
	Seek opportunities to showcase local organizations' efforts to protect and/or restore native habitats in the Tampa Bay area							
	Improve the visibility, organization, and labeling of public recycling/trash collection points							
	Provide temporary commingled recycling containers for use at special events held at the Airport							
	Develop a sustainable fleet management program for Authority vehicles							
	Explore opportunities to increase use of the Airport Compressed Natural Gas (CNG) station							
	Develop a traffic management system to reduce congestion along the Airport access roadway							
	Support regional connection to Airport People Mover (APM) system							

Sustainability Initiatives

	Health, Safety, and Security	Community	Natural Systems Management	Waste Management	Build Green and Buy Green	Energy Management	Regional Economic Impact	
PLANET (continued)	Identify and implement a zero-waste zone pilot project							
	Reduce Authority paper use							
	Expand the commingled recycling program to areas not currently covered							
	Develop a composting program at TPA for public areas, food concessionaires, kitchens, greenhouses, or other relevant areas							
	Advertise and promote recycling program results and best practices							
	Implement and maintain a Sustainable Design Criteria Manual							
	Prepare a facilities condition index to underpin a program to support capital decision-making regarding the Airport's facilities and assets							
	Update program development procedures to integrate sustainability into the planning, programming, and implementation processes							
	Define strategies to incorporate sustainability into procurement of services							
	Define strategies to increase the procurement of sustainable goods, and share strategies with tenants, where appropriate							
	Develop a "green IT" program							
PROSPERITY	Continue replacement/retrofitting escalators in the Main Terminal with variable speed controllers							
	Consider demand control ventilation strategies (CO ₂ sensors)							
	Expand use of daylight harvesting controls that dim/turn off lighting in appropriate daylight conditions							
	Explore partnership opportunity for a solar project							
	Explore expanded renewable energy supply as an alternative to fossil fuel based systems							
	Define an energy management program							
	Incorporate life-cycle cost analyses into capital project decision-making							

CHAPTER 6

Implementation Plan

The Implementation Plan identifies activities and responsibilities to implement the Authority's Sustainability Program, which comprises two main implementation components—the sustainability initiatives and the Sustainable Design Criteria Manual. Additionally, the Authority intends to finalize a communications plan in the near future. Activities to guide implementation of these three main Program components are organized into a continuous improvement model. As the Authority expands the Sustainability Program over time, additional implementation activities can be added within the framework to support new program components.

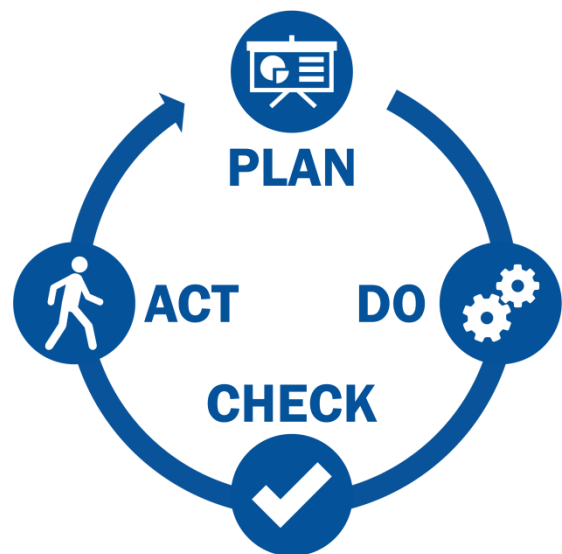
Sustainability Program Toolkit

The Sustainability Program Toolkit provides a series of tools designed specifically for the Hillsborough County Aviation Authority to implement the program defined in the Sustainable Management Plan. Tools are identified throughout this chapter for applicable implementation activities and are provided on the Sustainability Program Toolkit CD ROM.

Continuous Improvement Model

A common approach for continuous improvement of management processes is the four-step plan-do-check-act model. The model is employed and repeated to help identify gaps in processes, resolve the gaps and problems, carry out changes, and drive continuous improvement. The repeatable cycle provides a methodical approach to change management. The four steps include:

- Plan—Identify sustainability priorities, goals, initiatives, performance data and information needs, and challenges and opportunities, and define a plan or plans for actions to achieve goals.
- Do—Implement initiatives or plans to improve business processes, with clear milestones,



accountability, and timeframes, and collect necessary data and information.

- Check—Evaluate data and information, measure performance, and assess the results (Did the plan work? Understand why and how).
- Act—Report results to decision-makers and identify changes needed to improve the process

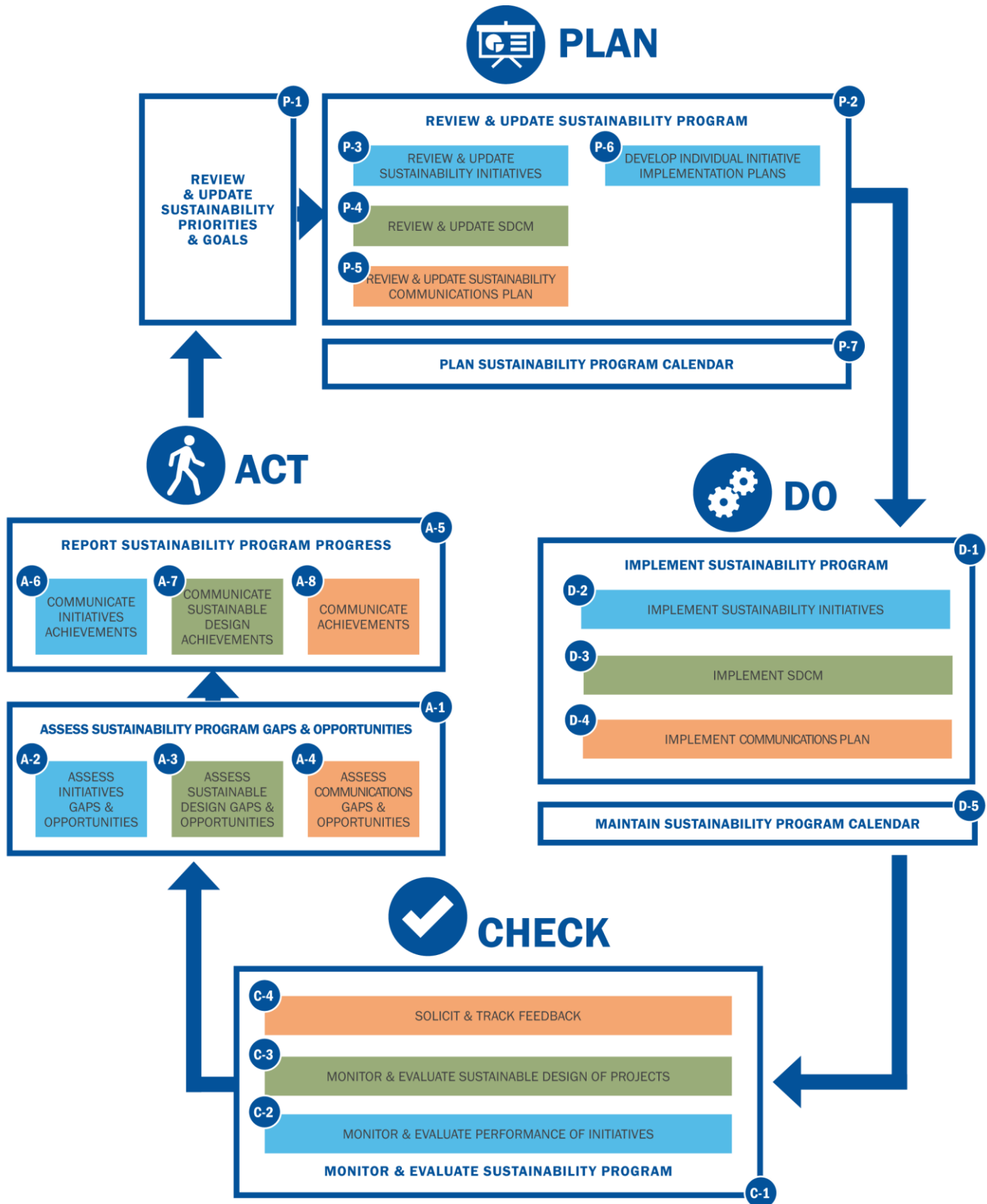
Needed changes identified in the *act step* are then addressed by reinitiating the *plan step* and continuing the cyclical process. The plan-do-check-act cycle offers the opportunity to implement changes, learn from implementation, and reevaluate, and thus, adjust implementation to continually enhance management practices and processes and improve performance.

The implementation plan for the Sustainability Program is built on this plan-do-check-act model. The implementation plan includes both overall Sustainability Program management activities to manage the full program as well as individual steps for the major plan components (the sustainability initiatives, the Sustainable Design Criteria Manual, and the communications plan). The recommended activities to implement and manage the Sustainability Program on an ongoing basis are described in the next section.

Management Activities and Responsibilities

This section provides a discussion of management activities, roles, and responsibilities for the Authority's Sustainability Program. An overview of the recommended plan-do-check-act activities is presented in the Sustainability Program Activities graphic on the following page. The remainder of this chapter provides a discussion of each of the identified management activities, which can be cross-referenced by activity number (e.g., P.1) to the activities graphic.

Sustainability Program Activities





PLAN ACTIVITIES

Plan is the first step in the plan-do-check-act cycle. In this step, priorities, goals, metrics, and targets are developed and subsequently refined during later cycles, and initiatives are defined to help the Authority achieve the goals and targets. This step also includes identification and evaluation of performance data and information needs, so that new information can be collected, if necessary, to assess performance on existing or new initiatives. The Sustainable Management Plan itself constitutes the first initiation of the cycle by setting priorities, goals, metric, and targets for the Authority's Sustainability Program and identifying sustainability initiatives for implementation. The *plan* activities discussed in this section, therefore, represent activities the Authority will conduct during subsequent passes through the *plan* step.

Seven *plan* activities are recommended, and are outlined in this section:

- Review and Update Sustainability Priorities and Goals (Activity P-1)
- Review and Update Sustainability Program (Activity P-2)
- Review and Update Sustainability Initiatives (Activity P-3)
- Review and Update SDCM (Activity P-4)
- Review and Update Sustainability Communications Plan (Activity P-5)
- Develop Individual Initiative Implementation Plans (Activity P-6)
- Plan Sustainability Program Calendar (Activity P-7)

P-1

Review and Update Sustainability Priorities and Goals

DESCRIPTION	Review and update priorities and goals in context of achievements and changing priorities.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	<p>SUSTAINABILITY COORDINATOR Responsible for preparing for, facilitating, and formalizing a workshop or other forum to obtain Staff input and Management concurrence on revised sustainability priorities and goals.</p> <p>AUTHORITY MANAGEMENT TEAM Responsible for participating in priority/goal review workshop or other forum and providing direction on revised priorities and goals.</p>
TIPS	Exercises to build consensus around priority and goal development include use of online surveys, live interactive polling, and workshop brainstorming sessions, among others.

P-2

Review and Update Sustainability Program

DESCRIPTION	Review and update, as needed, sustainability metrics, targets, and components of Sustainability Program. Also, identify and evaluate performance data and information needs to ensure effective information is being collected to assess performance over time on existing or new initiatives. Review should consider updated sustainability priorities and goals, gaps and opportunities, and should clarify how these elements relate to the Sustainability Program components (see Activities P-3 through P-5).
FREQUENCY	Annually (more frequently, if needed)
ROLES & RESPONSIBILITIES	<p>SUSTAINABILITY COORDINATOR Responsible for preparing for, facilitating, and formalizing a workshop or other forum to obtain Authority input on metrics, targets, and performance data needs as well as revisions, as applicable. Also responsible for establishing as-needed or ad-hoc meetings based on program needs..</p> <p>OTHERS See Activities P-3 through P-5.</p>

P-3

Review and Update Sustainability Initiatives

DESCRIPTION	Review and update sustainability initiatives in the context of achievements and changing priorities and goals, and identify new initiatives for implementation.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	<p>SUSTAINABILITY COORDINATOR Responsible for engaging internal and external stakeholders to compile and evaluate existing and new sustainability initiatives for implementation.</p> <p>INTERNAL AND EXTERNAL STAKEHOLDERS Participate in collaboration activities to identify and evaluate/rank candidate sustainability initiatives.</p>
TOOLS	See INITIATIVES REGISTER and INITIATIVES EVALUATION TOOL

See the Sustainability Program Toolkit

P-4

Review and Update SDCM

DESCRIPTION	Review and update SDCM in context of gaps and opportunities assessment, project lessons learned, and changing priorities and goals.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	<p>SUSTAINABILITY COORDINATOR Facilitate the review of compiled lessons learned from projects for which the SDCM was implemented and update design strategies and other relevant information on the criteria fact sheets to reflect lessons learned, emerging technologies and practices, and changing priorities and goals.</p> <p>PLANNING AND DEVELOPMENT DEPARTMENT Participate in the update of the SDCM by providing project awareness and subject matter expertise.</p>
TOOLS	See the SUSTAINABLE DESIGN CRITERIA MANUAL

See the Sustainability Program Toolkit

P-5

Review and Update Sustainability Communications Plan

DESCRIPTION	Review and update, as needed, the overall Sustainability Program communications plan to reflect feedback from stakeholder engagement, and updated priorities and goals. Develop communications plans for new communications activities.
FREQUENCY	Annually or Biennially for Sustainability Program update, Ongoing for new communications activities
ROLES & RESPONSIBILITIES	<p>SUSTAINABILITY COORDINATOR Coordinate with Marketing Department to revise the Sustainability Communications Plan.</p> <p>MARKETING DEPARTMENT Support revision of Sustainability Communications Plan by providing subject matter expertise.</p>
TOOLS	See the COMMUNICATIONS PLAN GUIDANCE and REPORT CARD TEMPLATE

See the Sustainability Program Toolkit

P-6

Develop Individual Initiative Implementation Plans

DESCRIPTION	Develop an implementation plan for each of the sustainability initiatives identified for implementation in Activity P-3 . Revise, update, or create new supporting policies, as necessary.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	INITIATIVE LEAD (for each initiative) Develop and gain approval of implementation plan for selected new initiatives and supporting policies, as needed. TO BE IDENTIFIED FOR EACH INITIATIVE Approve implementation plan.
TOOLS	See the INITIATIVE IMPLEMENTATION PLANS & TEMPLATE

See the Sustainability Program Toolkit

P-7

Plan Sustainability Program Calendar

DESCRIPTION	Develop calendar to schedule sustainability implementation activities.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Develop calendar and schedule activities (e.g., meetings, workshops, stakeholder sessions, program gap and opportunity reviews).



DO ACTIVITIES

Plans established in the *plan* step are implemented in the *do* step, and the necessary data and information is collected. The actual number of individual sustainability actions being implemented at any particular time depends on the number of initiatives identified for implementation and their respective implementation periods.

Although the SDCM can be considered a sustainability initiative, and indeed ranked highly during the evaluation of initiatives conducted as part of the Sustainable Management Plan project, the SDCM is a separate Sustainability Program component since development of the manual was included as part of the project scope. Similar to the SDCM, the Authority may develop new Sustainability Program components over time.

Five *do* activities are recommended, and are outlined in this section:

- Implement Sustainability Program (Activity D-1)
- Implement Sustainability Initiatives (Activity D-2)
- Implement SDCM (Activity D-3)
- Implement Sustainability Communications Plan (Activity D-4)
- Maintain Sustainability Program Calendar (Activity D-5)

D-1

Implement Sustainability Program

DESCRIPTION	Oversee the implementation of the Sustainability Program components, as described in Activities D-2 through D-5 .
FREQUENCY	Ongoing
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for ensuring overall program implementation.

D-2

Implement Sustainability Initiatives

DESCRIPTION	Implement sustainability initiatives and performance data and information, per approved initiative implementation plans.
FREQUENCY	Ongoing (implementation duration varies by initiative)
ROLES & RESPONSIBILITIES	INITIATIVE LEADS A designated Initiative Lead is responsible for implementation activities associated with each selected initiative.
TOOLS	See the individual INITIATIVE IMPLEMENTATION PLANS

See the Sustainability Program Toolkit

D-3

Implement SDCM

DESCRIPTION	Integrate the SDCM into the contracting, design, and construction of Authority development projects, and capture lessons learned and project evaluation data and information. Ensure project design teams are implementing the SDCM on projects.
FREQUENCY	Ongoing, per design project activity
ROLES & RESPONSIBILITIES	<p>PLANNING AND DEVELOPMENT DEPARTMENT Responsible for implementing the SDCM on selected projects and tracking lessons learned to build a body of knowledge about sustainable design at the Airport.</p> <p>PROJECT DESIGN TEAMS Responsible for integrating sustainability initiatives, as identified with Planning and Development Department, into project design, documenting design actions, and supporting the tracking of sustainability achievements and lessons learned (including barriers encountered).</p>
TOOLS	See the SUSTAINABLE DESIGN CRITERIA MANUAL

See the Sustainability Program Toolkit

D-4

Implement Communications Plan

DESCRIPTION	Engage stakeholders with sustainability messaging, and capture data and information.
FREQUENCY	Ongoing
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for defining and facilitating opportunities to message sustainability to the Airport stakeholders and the public. MARKETING DEPARTMENT Support the messaging of sustainability achievements and outreach to the Airport stakeholders and the public.
TOOLS	See the COMMUNICATIONS PLAN GUIDANCE [Full branding/messaging materials to be developed by the Authority]

See the Sustainability Program Toolkit

D-5

Maintain Sustainability Program Calendar

DESCRIPTION	Maintain program calendar.
FREQUENCY	Ongoing
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for maintaining the program calendar, including scheduling of meetings, public workshops, etc.



CHECK ACTIVITIES

During the *check* step, the Authority will monitor and evaluate data and information to determine whether implementation of the various Sustainability Program initiatives is improving the Airport's sustainability performance. Monitoring may take place both for the program as a whole in relation to the sustainability goals and targets, or at the initiative level to gauge the success of individual initiative implementation (the associated performance targets would be defined in the individual Initiative Implementation Plans).

Four *check* activities are recommended, and are outlined in this section:

- Monitor and Evaluate Sustainability Program (Activity C-1)
- Monitor and Evaluate Performance of Initiatives (Activity C-2)
- Monitor and Evaluate Sustainable Design of Projects (Activity C-3)
- Solicit and Track Feedback from Communications Activities (Activity C-4)

C-1

Monitor and Evaluate Sustainability Program

DESCRIPTION	Compile overall performance data and lessons learned for Sustainability Program and program components, and review results.
FREQUENCY	Ongoing, with review and compilation of data on an annual or biennial basis
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for compiling data for the overall Sustainability Program and individual initiatives (as provided by the Initiative Leads), and evaluating program to determine if sustainability performance is improving.
TOOLS	See the SUSTAINABILITY PERFORMANCE MONITORING TOOL

See the Sustainability Program Toolkit

C-2

Monitor and Evaluate Performance of Initiatives

DESCRIPTION	Track and evaluation performance of initiatives per the individual Initiative Implementation Plans, and share performance with the Sustainability Coordinator at periodic (e.g., monthly) progress meetings.
FREQUENCY	Project Milestones or Periodic Progress Meetings
ROLES & RESPONSIBILITIES	INITIATIVE LEADS Responsible for tracking performance data for individual initiatives, evaluating performance data, and reporting to Sustainability Coordinator. SUSTAINABILITY COORDINATOR Track performance data for initiatives being implemented and evaluating initiatives to determine if sustainability performance is improving.

C-3

Monitor and Evaluate Sustainable Design of Projects

DESCRIPTION	Monitor process for incorporating sustainability into development projects, and evaluate achievements through the capture of lessons learned.
FREQUENCY	Project Milestones
ROLES & RESPONSIBILITIES	PLANNING AND DEVELOPMENT DEPARTMENT Responsible for tracking sustainability strategies considered and integrated into design projects and the resulting lessons learned from those project designs for future comparable designs. SUSTAINABILITY COORDINATOR Responsible for participating in project design reviews and supporting integration of sustainable strategies into project design.

OTHER See [SUSTAINABLE DESIGN CRITERIA MANUAL \[Worksheets\]](#)

See the Sustainability Program Toolkit

C-4

Solicit and Track Feedback from Communications Activities

DESCRIPTION	Capture and evaluate feedback from stakeholders.
FREQUENCY	Ongoing
ROLES & RESPONSIBILITIES	<p>SUSTAINABILITY COORDINATOR Responsible for capturing feedback received from stakeholders and the public and identify input that should be considered for integration into the Sustainability Program (e.g., new initiatives).</p> <p>MARKETING DEPARTMENT Support Sustainability Coordinator in conducting outreach and capturing feedback received.</p>
TOOLS	<p>See the COMMUNICATIONS PLAN GUIDANCE</p> <p>[Full branding/messaging materials to be developed by the Authority]</p>

See the Sustainability Program Toolkit



ACT ACTIVITIES

Based on evaluation of performance data captured in the *check* step, *act* activities guide the Authority to identify gaps and opportunities for Sustainability Program performance and to report performance to stakeholders. Gaps and opportunities identified in this step are carried into the *plan* step as the Authority reinitiates the plan-do-check-act cycle. This is the essence of the continual improvement process—capturing lessons learned and building on them to improve future performance.

Eight *act* activities are recommended, four associated with assessing gaps and opportunities and four with reporting achievements, and are outlined in this section:

- Assess Sustainability Program Gaps and Opportunities (Activity A-1)
- Assess Initiatives Gaps and Opportunities (Activity A-2)
- Assess Sustainable Design Gaps and Opportunities (Activity A-3)
- Assess Communications Gaps and Opportunities (Activity A-4)
- Report Sustainability Program Progress (Activity A-5)
- Communicate Initiative Achievements (Activity A-6)
- Communicate Sustainable Design Achievements (Activity A-7)
- Communicate Achievements (Activity A-8)

A-1

Assess Sustainability Program Gaps and Opportunities

DESCRIPTION	Identify opportunities to adjust Sustainability Program implementation.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for identifying improvements to the overall Sustainability Program, with input from others as needed.
TIPS	Benchmarking other organizations and airports, participating in industry discussions about sustainability management (e.g., conferences, webinars).

A-2

Assess Initiatives Gaps and Opportunities

DESCRIPTION	Review initiative implementation and performance data to identify gaps and opportunities for each initiative being implemented.
FREQUENCY	Annually or Biennially, and upon completion of an initiative
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for facilitating periodic review of overall achievements from the Authority's sustainability actions and identify needs to adjust initiative implementation or identify new initiatives for implementation. INITIATIVE LEADS Participate in review of initiative achievements and needs for adjustment.

A-3

Assess Sustainable Design Gaps and Opportunities

DESCRIPTION	Identify gaps and opportunities in the SDCM and green building program.
FREQUENCY	Annually or Biennially, and upon project completion
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for facilitating review of the SDCM implementation process and the project-based sustainable design lessons learned. PLANNING AND DEVELOPMENT DEPARTMENT Participate in review of the SDCM implementation process, project-based lessons learned, and continually contribute to the lessons learned during SDCM implementation. Identify and lead opportunities to expand the sustainable design criteria based on industry developments, technology, rating system alignment, or other drivers.

A-4

Assess Communications Gaps and Opportunities

DESCRIPTION	Identify gaps and opportunities in sustainability messaging and ongoing communications
FREQUENCY	Annually or Biennially, and upon project completion
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for facilitating review of communications processes. MARKETING DEPARTMENT Participate in review of communications processes.

A-5

Report Sustainability Program Progress

DESCRIPTION	Compile an annual or biennial sustainability report and confirm audience(s); consider separate internal and external report cards/reporting formats.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for developing report content, engaging other Airport content developers and contributors, and issuing report. MARKETING DEPARTMENT Support Sustainability Coordinator in communications activities, including developing report content, where applicable. OTHER DEPARTMENTS Support Sustainability Coordinator in report development by providing content or access to content.
TOOLS	See the REPORT CARD TEMPLATE

See the Sustainability Program Toolkit

A-6

Communicate Initiatives Achievements

DESCRIPTION	Communicate initiative successes and lessons learned to various stakeholders (e.g., employees, tenants/business partners, aviation industry, agencies, the public).
FREQUENCY	Annually or Biennially, and upon project completion
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for identifying initiative achievements to highlight. INITIATIVE LEADS Support the identification of initiative achievements and provide relevant supporting data and information for messaging purposes.
TOOLS	See Activity A-5

A-7

Communicate Sustainable Design Achievements

DESCRIPTION	Identify messages to communicate successes and lessons learned during implementation of sustainable design to foster an understanding of the positive benefits and impacts that the Authority has had on the community.
FREQUENCY	Annually or Biennially, and upon project completion
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for identifying sustainable design messages to highlight and relevant audiences for those messages. PLANNING AND DEVELOPMENT DEPARTMENT Support identification and characterization of sustainable design messages.
TOOLS	See Activity A-5

A-8

Communicate Feedback and Progress

DESCRIPTION	Identify messages for internal communication to highlight successes and challenges of communications activities.
FREQUENCY	Annually or Biennially
ROLES & RESPONSIBILITIES	SUSTAINABILITY COORDINATOR Responsible for identifying sustainability messages and audience(s). MARKETING DEPARTMENT Support Sustainability Coordinator in communications messaging.
TOOLS	See Activity A-5



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