Appendix C

Sustainability Management Plan

Master Plan Update

TALLAHASSEE
INTERNATIONAL AIRPORT

TALLAHASSEE
INTERNATIONAL AIRPORT

Sustainability Management Plan

Michael Baker
INTERNATIONAL

TALLAHASSEE INTERNATIONAL AIRPORT

Sustainability Management Plan

ONE

TLH TERMINAL

Chapter 1 INTRODUCTION

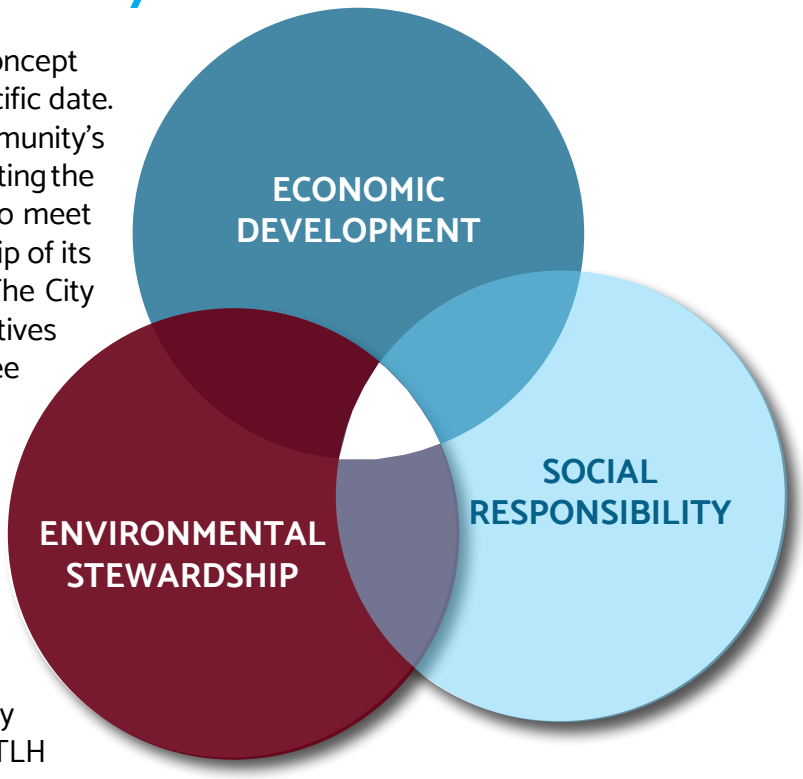
Tallahassee International Airport (TLH or Airport), in coordination with the City of Tallahassee (City), prepared this Sustainability Management Plan to document and guide its sustainability efforts. This plan contains all of the elements required by the Federal Aviation Administration (FAA) for sustainability management plans including:

- Definition of a collaborative **mission statement** that properly reflects TLH's and the City's vision for sustainability with a planned dissemination method to the stakeholders and the community it concerns.
- Identification and agreement on **sustainability categories** that support the City's sustainable initiatives.
- Administration of a baseline **inventory assessment** for each of the identified sustainability categories.
- Development of a strategy for meeting the Airport's sustainability goals and objectives by identifying **sustainability initiatives, and developing an implementation and management plan.**
- Development of a **performance measurement and reporting** plan to ensure continual monitoring and improvement concerning the Airport's sustainability goals.
- Tailoring of **community outreach** to optimize **public involvement** in this planning process.

TLH TERMINAL

What is airport sustainability?

"Sustainability" is not a singular, concrete concept or a defined objective to be achieved by a specific date. Rather, the term "sustainability" represents a community's overall ability to thrive over the long term while meeting the needs of today without compromising its ability to meet the needs of the future through proper stewardship of its environmental, economic, and social resources. The City has developed comprehensive sustainability initiatives to implement within the community of Tallahassee titled the "Green Print".[1] These initiatives cover multiple aspects of the community including the Airport. TLH has chosen to represent the City's sustainability vision to all users of the airport, whether they are residents or visitors exploring the area. TLH integrates the City's vision by engaging all lines of business to ensure that all decisions consider economics, the environment, and the community as a whole. Thus, sustainability is effectively incorporated into all aspects of TLH management and operations.



Sustainability planning demands a long-term, comprehensive, and integrated approach that considers environmental, social and economic factors. TLH already has numerous initiatives in place which, in conjunction with other recommendations, will continue to advance the Airport's sustainability efforts. These initiatives are described throughout this plan.

The Airports Council International-North America (ACI-NA) defines airport sustainability as "a holistic approach to managing an airport to ensure the integrity of the Economic viability, Operational efficiency, Natural resource conservation, and Social responsibility (EONS) of the airport."[2] [This definition was also adopted by the Florida Airports Council in 2010.] Employing this integrative approach, the City's sustainability goal that TLH adopted is:

Sustainability is a community's ability to thrive over the long term while meeting the needs of today without compromising its ability to meet the needs of the future through the proper stewardship of its environmental, economic, and social resources.

[1] Green Print, City of Tallahassee

[2] Airport Council International - North America. Airport Sustainability: A Holistic Approach to Effective Airport Management. www.acina.org/static/entransit/Sustainability%20White%20Paper.pdf. Accessed August 30, 2010.

What are the benefits of managing an airport in a sustainable manner?

Airport sustainability as a business strategy has both immediate and long-term benefits that can be measured and, when persistently managed, presents rewards. Some tangible benefits that sustainability initiatives can provide include:

- Decreased development and/or operations & maintenance costs
- Increased utilization of assets
- Reduced environmental footprint
- Streamlined environmental approvals/permitting
- Improved relationships with the community and agencies
- Enhanced benefits to the community
- Integrated designs as a way of doing business are encouraged
- Incentivized innovation and creation of new technologies

Airport history

TLH Opening Ceremony March 29, 1961
Mayor Joe Cordell gives dedication speech
Flight attendant greets first passengers

Photos courtesy of State Archives of Florida

In 1961, Tallahassee Municipal Airport was established as the main municipal airport for the city of Tallahassee. Since the Airport's conception many upgrades and improvements have occurred including: construction of Runway 9-27 in the early 1980s, terminal modernization, and a new checked baggage system. **Table 1-1** shows a breakdown of the operations and profile of the Airport.

The Airport is relied on heavily as a transportation hub for State Capital business and legislative sessions. During legislative sessions many lobbyists, politicians, and state employees utilize the Airport as a hub to efficiently travel to and from Florida's capital for business. The above listed improvements have been made to position the Airport to offer international travel to the Tallahassee area. The Airport changed its name on June 26, 2015, to **Tallahassee International Airport** to reflect this increase in passenger flight range. **Figure 1-1** depicts commercial air service flights from TLH.

TABLE 1-1 Tallahassee Internationl Airport Profile

FAA-defined (NPIAS) Role	Non-hub Primary Commercial Service Airport
Airport Area (approximately)	214,333 S.F.- terminal
Runway 9-27 Runway 18-36	8,000 feet 7,000 feet
Based Aircraft (est. 2009)	119
Annual Operations (est. 2015)	56,575
Total # of Commercial Tenants	15
Major Commercial Tenants:	• American Airlines • Avis Budget • Dade GSE • Delta Airlines • Enterprise/National/Alamo • Eulen America • FedEx • Flightline Group • Florida Fish and Wildlife Conservation Commission • Hertz/ Dollar Thrifty • Leon County Sheriff's Office • Lively Aviation • MillionAir • Silver Airways • U.S. Forest Service
Total Airport Staff	52

FIGURE 1-1 Flight destinations from the Airport

TLH Information Center

Location, land use, and protected species

The Airport is owned and operated by the City. It is approximately 2,490 acres in size and is located in Leon County, Florida. The Airport is bordered on the west and south by Apalachicola National Forest and to the north and east by sparsely developed areas. Lakes and smaller ponds occur within several miles of TLH on all sides.

Most areas to the south and west of the airport are designated as open space resource Protection land use but overall the Airport is not constrained in its ability to continue to develop. Apalachicola National Forest provides habitat for a variety of wildlife and plant species, a few of which are protected. These species include the gopher tortoise and bent golden aster.

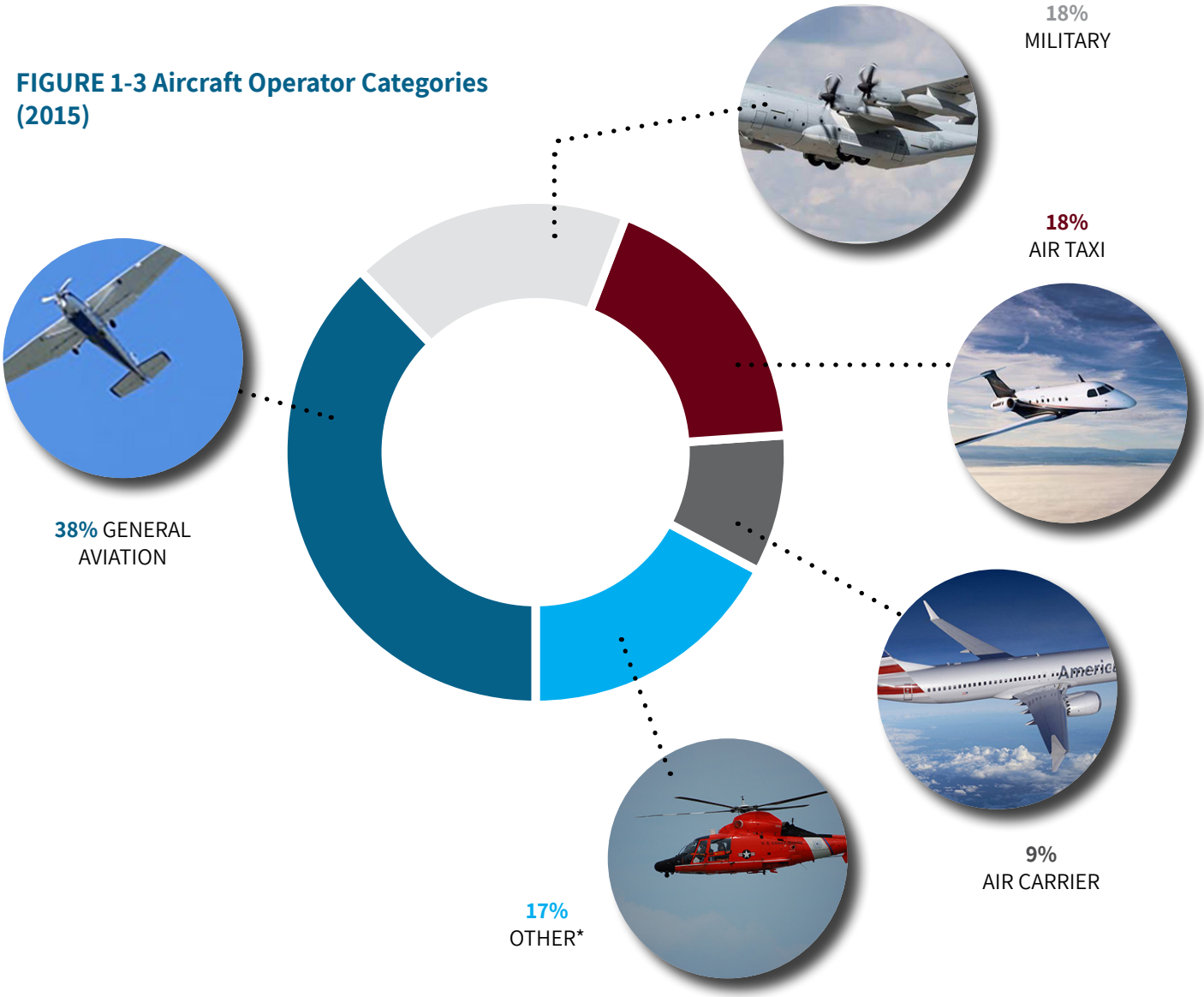
View west of the Airport terminal looking north

Gopher Tortoise
Photo courtesy of Brave Wilderness (YouTube)

Airport facilities

The existing airfield facilities at TLH consist of two perpendicular non-intersecting asphalt runways; the longest of which (Runway 9-27) measures 8,000 feet. The Airport maintains several T-hangars, corporate hangars, a terminal building, a fuel farm, an electrical vault, and an equipment maintenance and storage building. The Airport services scheduled and non-scheduled air-carrier operations for at least 31 passengers and is therefore certified as a Part 139 Class One Airport.

FIGURE 1-3 Aircraft Operator Categories (2015)

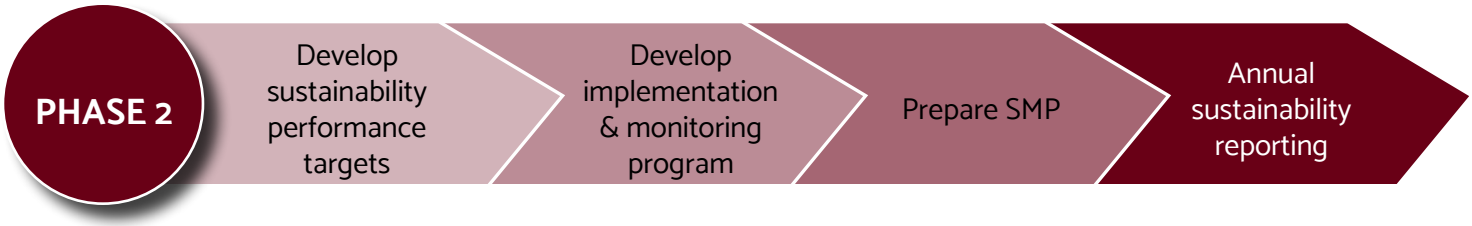


Source: Air Traffic Activity System (ATADS), created on Mon May 16 15:19:01 EDT 2016.

Sustainability planning process

The sustainability planning process used for this project consists of two phases. The first phase included an inventory of Airport activities, resource consumption, and financial records, then an establishment of sustainability goals and objectives and finally an identification and evaluation of candidate initiatives to meet established goals and objectives.

The second phase consisted of establishing sustainability performance targets to ensure that the Airport: makes regular progress towards achieving its sustainability goals; develops an implementation and monitoring program; and provides a report card outline and format that can be used for future data tracking and reporting by the Airport.



Thus, the end product was tailored to TLH's unique environment, staff, and resources including the large area of land available for future growth.

Format of the Sustainability Management Plan Report

This report is divided into the individual categories that were developed specifically for this Sustainability Management Plan. The categories include:

- Chapter 2 Solid Waste
- Chapter 3 Economic Viability
- Chapter 4 Energy Management
- Chapter 5 Natural Resources
- Chapter 6 Land Use and Mobility
- Chapter 7 Community Relations

Within each category, the following questions are presented:

WHAT ARE OUR GOALS?

A key component of sustainability planning is the development of goals and objectives. A goal was developed for each element based on what the Airport ultimately would like to accomplish. Next, a series of objectives were developed supporting each category's goal. The goals and objectives were developed by the Airport with input from the stakeholder visioning team, City staff, and local agency representatives.

WHERE ARE WE NOW?

The Airport's current status for each of the sustainability elements identified above will be discussed in their respective chapters. This section of each chapter will show a snapshot of the Airport with respect to the sustainability elements.

WHAT HAVE WE ALREADY ACCOMPLISHED?

This section will discuss TLH's current sustainability initiatives and those that are currently being pursued. The current initiatives will include sustainability implementations that occurred past the baseline year of the study (2015).

HOW WILL WE REACH OUR GOALS?

The goals and objectives described in each of the following chapters were developed during the stakeholder visioning meetings. During these meetings, quantifiable objectives and benchmarks were established as part of the Airport's commitment to their chosen sustainability initiative.

"Know from whence you came. If you know whence you came, there are absolutely no limitations to where you can go."

James Baldwin

TLH Runway 27 Approach Lighting System

Airport, stakeholder, and vision team meetings

The Sustainability Management Plan Visioning Team consisted of the Director of Aviation and Airport staff, City of Tallahassee and Blueprint representatives, and facilitators from Michael Baker International, Inc. This team met regularly to discuss project details, including a baseline inventory of airport information, upcoming project tasks, and the project schedule. During this study, the following meetings and coordination efforts took place:

Project Kick-off Meeting

The TLH Master Plan Update project kick off meeting took place in December 2015, at the Airport terminal. Attendees of the meeting included the Director of Aviation, Deputy Director of Aviation, Capital Programs Administrator, and two members from Michael Baker International, Inc. During this meeting the sustainability management plan and the process forward were discussed. An Airport site visit evaluation was conducted and photographs were taken of various portions of the Airport.

Airport Tenant Surveys

Two SMP surveys were sent to major Airport tenants. The first survey was sent on August 8, 2016, and a second survey was sent on December 2, 2016. The first survey consisted of questions concerning current tenant employee make up, waste management and recycling practices, plans or initiatives currently in place, and utility consumption per month. The second survey asked about green and sustainable practices and included a fuel sales and greenhouse gas emission survey. Both surveys' results were cataloged and used in the development of the Airport's baseline sustainability inventory.

Visioning Meeting

Stakeholder Visioning Meetings

On March 30, 2017, stakeholders gathered for the visioning meeting to establish element goal objectives for TLH's SMP. Following a presentation, the stakeholders were divided into three teams for a break-out session to brainstorm about objectives. Draft objectives were provided to the stakeholders during the break-out session to help generate, select, and adopt new objectives. After the break-out session, the teams presented and discussed their team choices and the group finalized objectives for each sustainability element.

This SMP is based on those final proposed goals and objectives, initiatives, metrics, and champions developed by multiple stakeholders from both the Airport and surrounding community.

A second visioning meeting was held at TLH on January 23, 2018. Stakeholders gathered to discuss potential initiatives to achieve the element goal and objectives that were established during the March 30, 2017, meeting. The format was like the previous meeting where stakeholders brainstormed in three teams during a break-out session. After the session, the teams presented their proposed initiatives. In addition to the potential initiatives, the stakeholders also identified metrics and champions for achieving their proposed initiatives and element goals. Finally, the stakeholders voted and agreed upon a set of final initiatives, metrics, and champions for each sustainability element.

Sustainability Visioning Team Members

TWO

TLH MASTER PLAN UPDATE PUBLIC MEETING

Chapter 2 COMMUNITY

Airports have a symbiotic relationship with the surrounding communities. They provide ports of access for passengers that increase revenue flow into the local community. Likewise, airports rely on the local community to attract and support their operations. Fostering positive relationships and providing benefits to the local community are vital to an airport's long-term sustainability. This chapter addresses how the Airport cultivates and fosters a positive relationship with the local community.

GOAL

To enhance the Airport's overall involvement within the local community making the Airport a shared vested interest and overall asset to the community

OBJECTIVES

- Build stakeholder engagement and partnerships
- Facilitate secure and safe movement of people and aircraft
- Provide a superior travel experience at TLH

Capital City News and Gifts at TLH Terminal

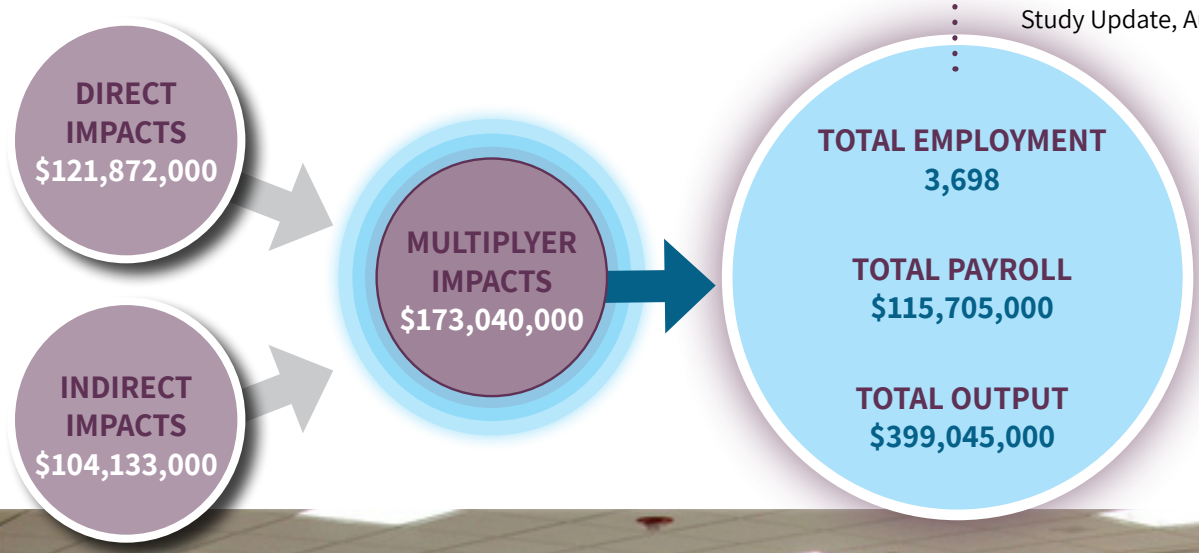
WHERE ARE WE NOW?

Airport's Economic Impact on the Community

A breakdown of the economic impact the Airport has on the community through employment at and around the Airport is provided in **Table 2-1**. The economic impact the Airport has on the community is broken down by direct and indirect impacts. These economic impacts include industries both on and off Airport that are directly influenced by operations at TLH. The Airport, commercial service, commercial service visitor industries, and Airport tenants provide employment at TLH.

TABLE 2-1 TLH Economic Impact

Source: Florida Statewide Aviation Economic Impact Study Update, August 2014

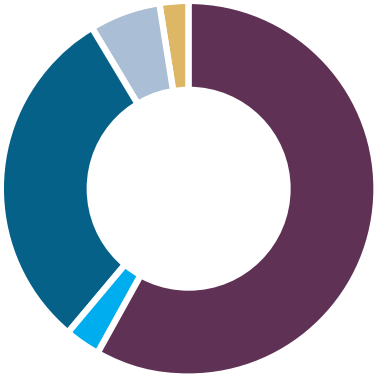


Art Display of Local Artists at TLH Terminal

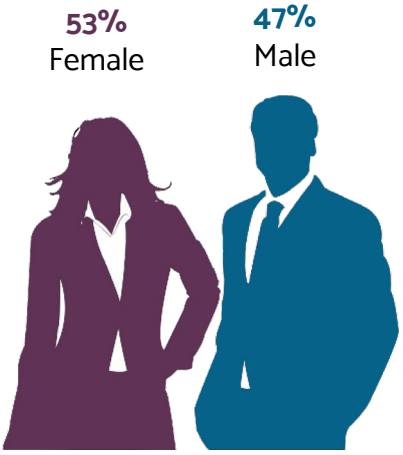
City of Tallahassee Demographics

A breakdown of the gender and racial diversity of the residents of Tallahassee is presented below.

FIGURE 2-2
Ethnic & Gender Demographics of Tallahassee Residents



- White (171,033)
- Asian (8,772)
- Black (89,067)
- Hispanic (17,819)
- Multiple races (7,029)



Source: University of Florida, Bureau of Economic and Business Research, "Florida Population Studies, Bulletin 169", June 2014.

TLH Employee Service Award
Photo courtesy of www.facebook.com/flytallahassee

WHAT HAVE WE ACCOMPLISHED?

Community Outreach Programs

TLH has a long-standing involvement with United Way of the Big Bend Foundation, including multiple annual fundraising events from September through November. These events include the following:

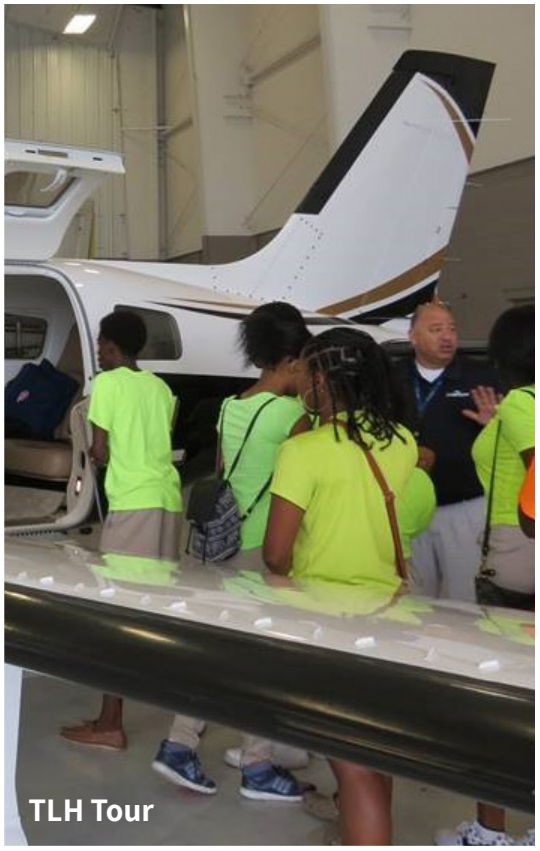
TLH holds an annual campaign to raise money for United Way. In 2017, the Airport donated $8,184.21 to United Way.

Many Airport employees voluntarily donate their time to the community. Approximately 90 hours per month benefit various charities and non-profits. In addition to volunteer activities in the surrounding community, TLH hosts multiple community events at the Airport. These events include new construction project kick-off celebrations that inform the community on expansions at the Airport and prize giveaways that include free flights to new destinations.

TLH Terminal Airside Businesses

Airport Tours

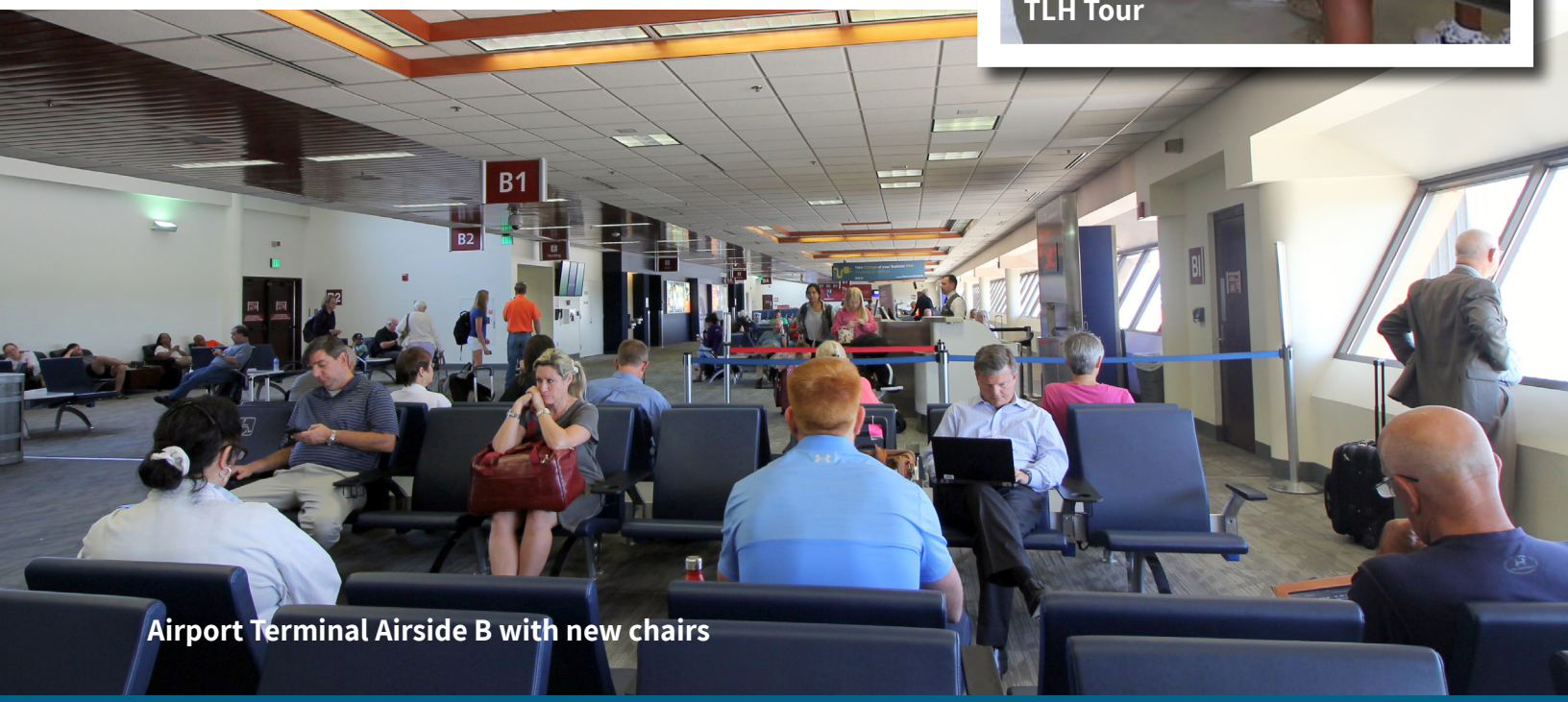
TLH considers sharing information with the community about the activities and services the Airport offers to be an important task. From 2013 to 2015 the Airport conducted 18 educational tours to over 100 individuals ranging in age from school-aged children to adults in professional organizations. In 2016, this increased to 12 Airport tours. TLH now conducts an estimated 25 educational tours each year for the community, and more tours.



TLH Tour

Airport Stakeholder Meetings & Surveys

The Airport holds monthly meetings with their tenants. As discussed in Chapter 1, a Sustainability Vision Team was formed consisting of representatives from the Airport, other City departments and Blueprint, who met several times to discuss the goals, objectives, initiatives, metrics and champions for this plan. TLH also conducted a Passenger Intercept Survey and Airport Seating Options Survey in 2015. A sustainability practices survey was conducted at the Airport in 2016 to gather and compile data on TLH's tenant sustainable practices and policies so that it can be incorporated into this plan.



Airport Terminal Airside B with new chairs

HOW WILL WE REACH OUR GOALS?

The Airport has identified several potential initiatives to meet its community goals and objectives. These initiatives vary in type, anticipated degree of effectiveness, and cost. Some of these initiatives are new and derived from industry best practices, internal Airport brainstorming, and stakeholder visioning. Others are a continuation, or expansion of initiatives that are already in place. TLH will pursue these initiatives depending on their anticipated likelihood of success, feasibility, and availability of staffing and budgetary resources.

- Create an interactive media display that would engage and inform visitors about the sustainable aspects of completed projects and/or Airport operations at TLH.
- Develop a "Speaker's Bureau" where Airport representatives share the Airport's sustainability accomplishments with local communities and determine points of collaboration for future practices.
- Partner with community leaders to provide incentives and/or establish foreign trade zones that would attract new businesses and educational institutions to the surrounding community.
- Install electronic messaging boards that can be remotely updated with helpful information for travel including: deals in shops, dining options and specials, and community events.
- Host a seminar open to the community and/or other stakeholders that provides education about the Airport, aviation, and sustainability-related topics (separate from the regularly scheduled public hearings).
- Connect with the community through social media, television, and the Airport's website and continually re-evaluate the distribution format and content to ensure Airport's message is being communicated effectively.

HOW WILL WE MEASURE PROGRESS?

At the January 2018 visioning meeting, the metrics listed below were set for measuring our progress and success of meeting the community goals and objectives.

- Increase in the number of Airport tours
- Increase in the number of community events at the Airport
- Increase in the number of community outreach activities
- Increase in the frequency of press/media releases
- Increase in the number of "likes," reviews, and posts on the official Tallahassee International Airport Facebook page
- Increase in the number of followers and retweets of the official @iFlyTallahassee Twitter feed

Live Oak Grill at THL, featuring reclaimed boards recycled from Jefferson County High School, which was built in 1852.

THREE

TLH TICKETING

Chapter 3 ECONOMIC VIABILITY

The long-term sustainability of any business requires a reliable financial base with a steady flow of funding to ensure the future growth and success of the business. Economic vitality is the driving force for progress and innovation, and allows the business to engage in the community and enact sustainable measures that enhance and preserve the surrounding natural resources. The Airport continues to uphold economic practices that are viable, environmentally sound, and socially responsible. The following section outlines the Airport's activities that enhance and ensure aeronautical and non-aeronautical revenue generating opportunities so the Airport remains a regional and local economic engine.

GOAL

Foster an economic climate that integrates green/sustainability initiatives, and supports local business growth, while sustaining and growing aeronautical and non-aeronautical revenues

OBJECTIVES

- Ensure economically-viable air service to stimulate the regional economy
- Capitalize on the aeronautical and non-aeronautical assets present at the Airport
- Ensure selective, profitable, and timely infrastructure development
- Update the language in contracts to encourage bidders to include environmentally sustainable products in future bids
- Emphasize procurement and contracting of local and sustainable products and services

Monroe Street Beer & Wine at TLH

Definitions for aviation activity categories in Table 3.1 are from the FAA Terminal Area Forecast Summary for Fiscal Year 2015 and are as follows:

Local Operations are conducted by aircraft operating in the traffic pattern or within sight of the tower, aircraft known to be departing or arriving from flight in local practice areas, or aircraft executing practice instrument approaches at the airport.

Itinerant Operations are all aircraft operations other than local operations. Essentially, these represent takeoffs and landings of aircraft going from one airport to another.

Air Carrier Operations represent either takeoffs or landings of commercial aircraft with seating capacities greater than 60 seats.

Commuter/Air Taxi Operations are one category. Commuter operations include takeoffs and landings by aircraft with 60 or fewer seats that transport regional passengers on scheduled commercial flights. Air taxi operations include takeoffs and landings by aircraft with 60 or fewer seats conducted on non-scheduled or for-hire flights.

Itinerant General Aviation and Local Civil Operations represent all civil aviation aircraft takeoffs and landings that are not classified as commercial.

Military Operations represent takeoffs and landings by military aircraft. Operations are either itinerant or local flights.

WHERE ARE WE NOW?

Aviation Activity

TLH serves all sectors of aviation activity including scheduled operations; major airline companies including American Airlines, Delta Airlines, and Silver Airways; and unscheduled charter operations. The Airport's current air traffic activity is shown in **Table 3-1.** Data for Table 3.1 was gathered from the following sources:

- FAA Air Traffic Activity Data System (ATADS) Database
- FAA Terminal Area Forecast (TAF)

TABLE 3-1 Annual Operations (2015)

ANNUAL OPERATIONS	
Category	Operations ($ thousands)
Itinerant Activity	
Air Carrier	5.3
Air Taxi	10.1
GA	22.2
Military	10.2
IT Total	47.8
%Total	82.5
Local Activity	
Civil	7.2
Military	2.9
LOC Total	10.1
%Total	17.5
Total Operations	**57,921**

Sources: FAA Terminal Area Forecast (TAF), accessed 2015. https://taf.faa.gov/ and Michael Baker International, Inc., 2016.
*Values have been rounded

Growth in operations aligns with the Airport's desire to grow and continue to expand economical flights to nearby major hubs. TLH is currently pursuing several opportunities to expand air service. The concentrated effort to expand aviation activity comes with TLH being awarded the USDOT's Small Community Air Service Development Program $750,000 grant in 2015. This momentum and funding coupled with the large amount of developable area has positioned the Airport to increase aviation activity in the coming years. Further information on the operations and enplanements at TLH can be found in the 2015 Master Plan Update.

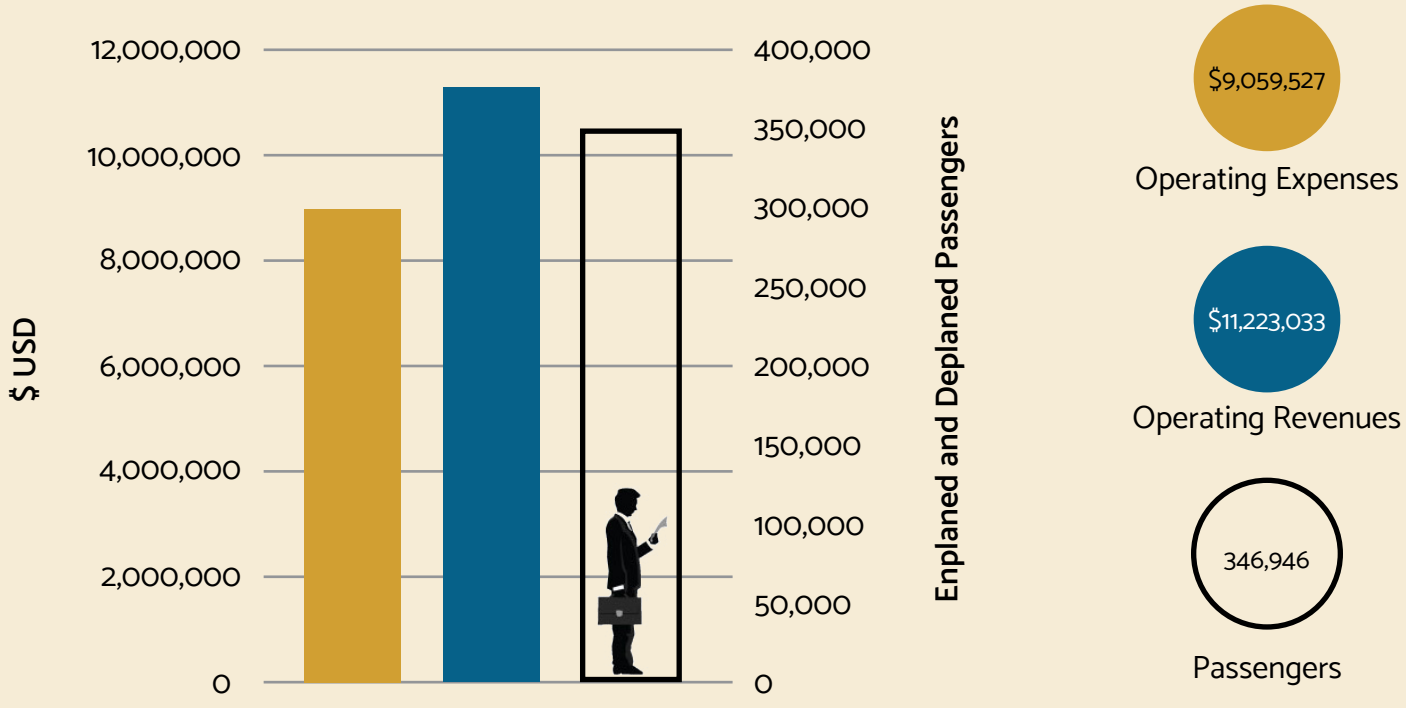
Table 3-2 shows a financial baseline assessment and **Figure 3-1** shows a financial snapshot of the operating revenue and expenses at TLH during the baseline year of 2015.

TABLE 3-2 TLH Financial Baseline ($ USD)

Year	Operating Revenue	Operating Expenses	Non-Operating Revenues	Year-End Transfers**
2015	11,233,033	9,097,089	411,626	2,547,570

*Non-Operating Expenses were negligible in 2015 and therefore were not included
**Year-End Transfers: 60% of Net Remaining Funds are transferred to Airline Prepaid Fee Credit Account and 40% of the Funds are transferred to the Airport Repairs Replacement and Improvements Fund.

TABLE 3-3 Financial Snapshot (2015)



WHAT HAVE WE ACCOMPLISHED?

International Airport

On June 29, 2015, the Airport's name was changed from Tallahassee Regional Airport to Tallahassee International Airport. Once final approvals are received from the U.S. Customs and Border protection, this change will allow international cargo and general aviation flights to come directly to the Airport and most importantly, the opportunity to attract more and different commercial airlines and international freight companies.

The Airport is in the process of applying for establishing a foreign trade zone. The many benefits of a foreign trade zone would attract businesses to the Airport and City which would also increase passenger traffic and overall Airport revenue.

TLH Terminal and Parking Area

Solar Farms

The City has constructed a solar farm and is in the process of permitting a second solar farm on the property. The solar farm that was constructed generates 20 megawatts of AC energy (MWac) that will be fed into the City of Tallahassee's power grid. The 20-megawatt solar farm land was leased from the Airport for slightly less than $60,000 annually, generating revenue while providing sustainable alternative energy. A second solar farm which will generate 40-MWac of clean energy is currently under design and is scheduled to start the construction phase in 2019. The additional solar farm will provide a continuous stream revenue to the Airport while simultaneously providing renewable energy to City residents.

TLH Solar Farm

New Commercial Flight

In February 2018, the Airport added non-stop flights to Washington, D.C. The daily flight service provided by American Airlines will increase passenger traffic and TLH revenue.

Terminal Renovation

In 2015, TLH started the first of three phases of the multi-million dollar terminal renovation.

I

Phase I terminal pre-security improvements consisted of the following:

- New in-line baggage handling system
- New airline ticket counters
- New car rental ticket counters
- New safety screening machines
- New Transportation Security Administration (TSA) screening room
- New visitor information center with new LCD monitors
- Valet parking upgrades
- Lighting upgrades

II

Phase I renovations were completed in December 2016. **Phase II** renovations started in January 2017 and included the following:

- New Transportation Security Administration (TSA) pre-check lane
- New terrazzo flooring in the central areas post security
- New fire alarm system and new upgraded terminal-wide paging system

III

Phase II renovations were completed on December 5, 2017. **Phase III** renovations are currently under scope with an anticipated completion date in 2019 and includes the following:

- New chairs
- Extension of the terrazzo floors to the concourses
- Ceiling tile replacement
- Bathroom renovations
- Lighting upgrades
- New seating area before the security checkpoints
- Upgraded jet bridges

Funding for the overall terminal renovation project came from TSA, FAA, FDOT and the City.

Local Business Advertisements at TLH Terminal

TLH Terminal


TLH Airside Security

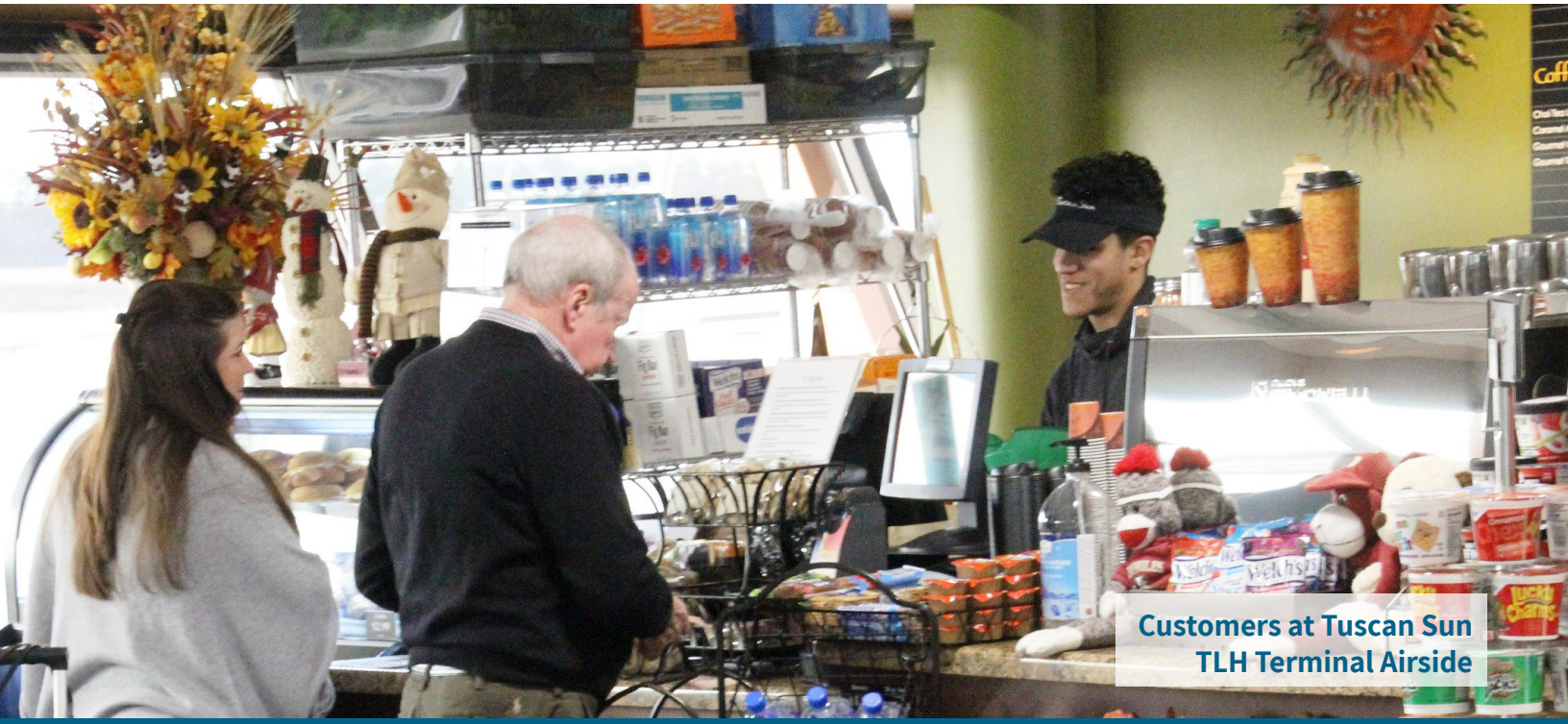
Consolidated Rental Car Facility

TLH recently started the design phase of their Consolidated Rental Car Facility (CONRAC). The CONRAC will house all rental car companies, parking for the rental vehicles, and a facility where the vehicles will be fueled, washed and prepared for rental.

HOW WILL WE REACH OUR GOALS?

The Airport has identified several potential initiatives to meet its economic viability goals and objectives. These initiatives vary in their type, degree of effectiveness, and cost. Some of these initiatives are new and derived from industry best practices, internal Airport brainstorming, and stakeholder visioning. Others are a continuation, or expansion of initiatives that are already in place. TLH's implementation of these initiatives will depend on their likelihood of success, feasibility, and staffing and budgetary constraints.

- $ Partner with additional airline carriers to increase flights and enplaned passenger access to Tallahassee and surrounding areas.
- $ Partner with chambers of commerce to market destinations in the Tallahassee area. Gather information from area businesses and other entities regarding their current and projected travel needs and provide the information to the airlines.
- $ Pursue tax incentives, government grants, and property tax savings for development.
- $ Develop protocols for tracking and monitoring the sustainability of materials being procured.
- $ Develop a communications and marketing plan for the Airport.
- $ Establish an Airport Communications and Marketing Committee to develop/execute the Airport Marketing Plan.



Customers at Tuscan Sun
TLH Terminal Airside

HOW WILL WE MEASURE OUR PROGRESS?

At the January 2018 visioning meeting, several metrics were set to measure the progress and success for meeting the economic viability goals and objectives:

- Increase in the number of annual passenger enplanements
- Increase in amount of jet fuel sales
- Increase in the number of employees
- Increase number of businesses at the Airport
- The number of annual operations
- The cost per enplanement
- Reduction in the amount of marketing money spent annually per passenger
- Increase in Annual Aeronautical Revenue
- Increase in Annual Non-Aeronautical Revenue

TLH Baggage Claim Area

FOUR

AIRCRAFT ACTIVITY AT TLH

Chapter 4 MOBILITY & DEVELOPMENT

Proper planning of infrastructure is essential in reducing congestion and increasing the efficient flow of traffic in and around the Airport. Mindful incorporation and design of infrastructure into future plans is crucial to improving mobility and efficiency. This chapter discusses current infrastructure and connectivity of the Airport and looks at ways to improve mobility and efficiency through conscious and informed development.

GOAL

Incorporate more green building initiatives and transportation options into future land development design including reusable and sustainable materials for future projects at the Airport

OBJECTIVES

- Maximize airport accessibility and connectivity
- Reduce Vehicle Miles Traveled (VMT) in and around the Airport
- Increase Alternative Transportation options
- Increase utilization of mobile based cab services and transportation network companies (TNC) by partnering with companies to offer coupon codes and advertise in the terminal about mobile based cab services already present at the Airport
- Identify opportunities for public transportation integration and partnering with the Airport to support employee and passenger utilization of public transportation

Traditional cab at TLH

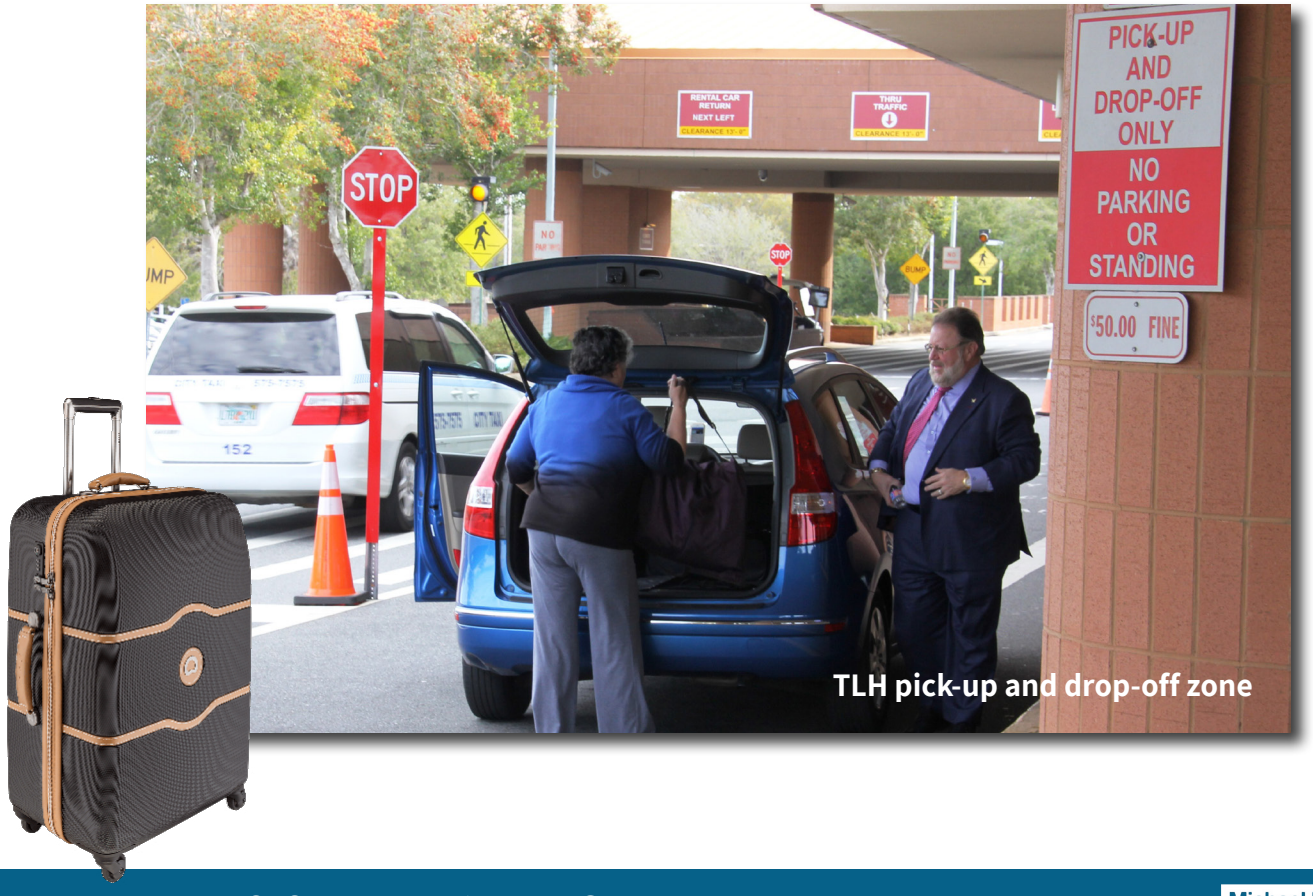
WHERE ARE WE NOW?

Mobility

Currently the Airport can be accessed through Capital Circle SW, a two-lane road undergoing a widening to six lanes and infrastructure improvements through the Blueprint 2020 initiative. These improvements will increase potential traffic capacity volume of passengers to and from the Airport. Currently there are no bus routes providing direct access to the Airport. However, transportation network company (TNC) such as Uber and Lyft and traditional cabs supplement the transit options to and from the Airport and increase access for people who lack reliable transportation.

Development

Airports remain open and functioning 24/7. This constant use requires on-going maintenance and improvements to continually offer superior travel experience for airport users. Major renovations have been underway in the terminal to increase accessibility, improve the flow of foot traffic, and improve aesthetics. Behind the scenes, multiple improvements were implemented to increase efficiency at the Airport including: an in-line baggage handling system, a cellphone waiting lot, and extension and reconstruction of Runway 18/36 and 9/27 respectively. These completed projects, in addition to the on-going and planned projects, show TLH's commitment to offer a superior travel experience for all travelers who use the Airport.



TLH pick-up and drop-off zone

WHERE ARE WE NOW?

Cell Phone Lot

The cell phone lot is an area created for individuals waiting to pick up passengers disembarking from arriving flights. The area is located on the north-east end of terminal loop road, south of Capital Circle SW. This free parking area improves mobility and helps reduce traffic congestion.

Cell phone lot at TLH

TNCs

TLH has tapped into the emerging resource of TNC services by partnering with Uber and Lyft. This partnership is a formal agreement in line with its sustainable objectives to help reduce congestion and promote a clear flow of traffic in and out of the Airport. TNC drivers are required to wait in the cell phone lot and queue based on the first in, first-out (FIFO) sequential arrival time of the drivers. This queue creates a clearly-defined order for TNC drivers responding and picking up the off-boarding passengers. The FIFO queue is also broadcast within the local area so that TNC drivers can check the up-to-date queue to see if traveling to the Airport is worth their gas and time expenditures.[1] By providing an informed mobility service for off-boarding passengers, TLH is reducing traffic congestion in Airport drop off lanes as well as reducing GHG emissions from Scope 3 (Tenant/Public) individuals.

TNC partnership with Uber

Phase I Terminal Renovation

The Airport completed the Phase I Terminal Renovation in December 2017. It included modernization of the pre-security and terminal areas to increase efficiency and enhance aesthetics. Improvements included flooring, ceiling tiles and lighting and in-line baggage handling system. Terrazzo floors throughout the terminal features seals from the City of Tallahassee, Florida A&M, Florida State University and Tallahassee Community College. The ticket counters are backlit by sepia colored images of canopy roads, which is representative of Tallahassee as depicted on the seal. A much larger art gallery featuring local art is located across the ticket counters.


Baggage handling area at TLH

[1] Uber, Driving at TLH. https://www.uber.com/drive/tallahassee/airports/tallahassee-international-airport/

HOW WILL WE REACH OUR GOALS?

The Airport has identified several potential initiatives to meet its mobility and development goals and objectives. These initiatives vary in their type, degree of effectiveness, and cost. Some of these initiatives are new and derived from industry best practices, internal Airport brainstorming, and stakeholder visioning. Others are a continuation, or expansion of initiatives that are already in place. TLH will pursue these initiatives depending on their anticipated likelihood of success, feasibility, and staffing and budgetary constraints.

- Reduce single occupancy commuting.
- Champion the implementation of an Airport employee ridesharing program.
- Develop a program to encourage rental car and taxi companies operating at the Airport to increase the number of hybrid and/or alternative fuel vehicles in their fleets.
- Consider opportunities to integrate natural elements into facilities.
- Include Green LEED Accreditation initiatives in building design and site construction, when possible.
- Prioritize multimodal design in future planning efforts.
- Develop with green alternative and efficient designs in mind.
- Consider reuse of existing, previously occupied buildings, including structure, envelope, and elements.
- Identify opportunities to incorporate salvaged materials into building design and research potential material suppliers.
- Prepare a smart growth plan that considers mixed land uses, compact building design, pedestrian connections to buildings, and other green and sustainable initiatives for Airport growth.
- Decrease paved areas for future construction projects by incorporating green landscaping elements that are not attractive to wildlife.

HOW WILL WE MEASURE PROGRESS?

At the January 2018 visioning meeting, several metrics for measuring the progress and success in meeting the mobility and development goals and objectives were discussed. The number of annual airport operations:

- Increase the number of commercial airlines
- Increase the annual number of commercial services flights
- Increase the number of available surface transportation options (Uber, Lyft, limo, taxi, bus, rail, etc.)
- Increase the annual percentage of reusable materials used in new construction projects
- Increase the number of LEED features implemented on-Airport

FAMU seating area

FIVE

VEHICLE CHARGING STATION AT TLH

Chapter 5 ENERGY

The environmental benefits of energy conservation and the use of renewable energy include money savings and reduced environmental impact. Fewer fossil fuels burned means less polluting gases resulting in a reduction in greenhouse gas (GHG) emissions and cleaner air. Energy management can range from small measures (like turning off lights when leaving a room) to larger investments such as installing solar power panels on buildings. TLH is making great strides in increasing their options for renewable energy generation for the coming years. The following chapter will detail how TLH plans to manage energy generation and usage to decrease the Airport's overall GHG levels and to help improve the air quality in and around Tallahassee, Florida.

GOAL

Increase energy conservation and encourage employee energy stewardship throughout the Airport

OBJECTIVES

- Ensure economically-viable air service
- Decrease utilization of heavy greenhouse gas emitting power options
- Strengthen education on energy conservation for employees at the Airport
- Implement alternative modes to generate and store energy
- Decrease cost of utilities through implementation of energy efficient appliances
- Achieve a 100% Renewable Electric Terminal Facility

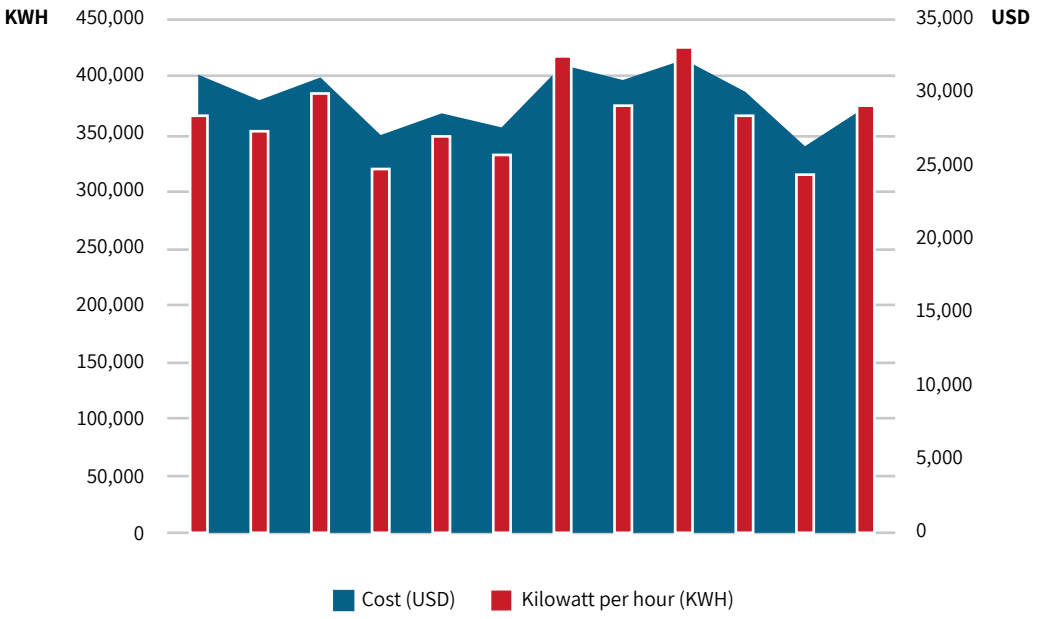
TLH 20 MWac solar farm

WHERE ARE WE NOW?

Electricity Use

Figure 5-1 shows the 2015 baseline electricity consumption in kilowatt per hours (KWH) for the Airport terminal. According to metered data, electricity use is relatively constant throughout the year with slightly higher usage in July and September 2015.

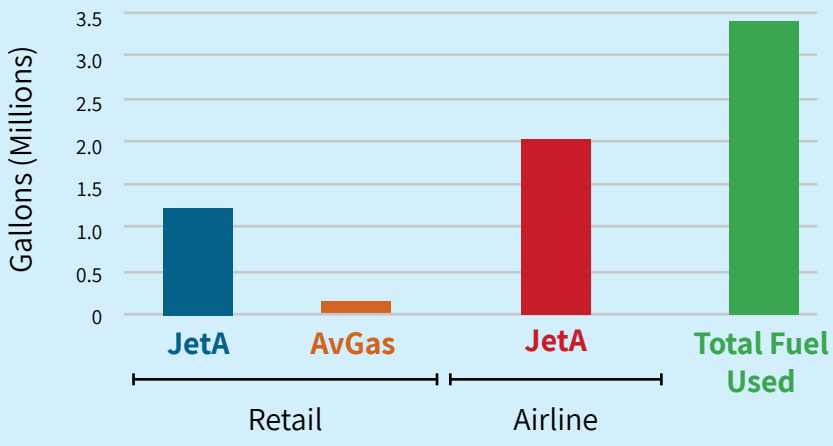
TABLE 5-1 TLH Airport Terminal Electric Usage 2015



Fuel Sales

Figure 5-2 compares aircraft fuel sales between retail and commercial aircraft at the Airport in 2015. The Million Air FBO provides fuel sales and service to both retail and airlines.

TABLE 5-2 Fuel Sales 2015



Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions (air pollutants) are generated by aircraft, ground service equipment, cars, and buses traveling to and from the Airport, and from Airport fuel and energy use. The overall GHG emissions generated by TLH activities are minor compared to larger airports as documented in this Sustainability Management Plan.

Tug for pulling airplanes

As part of this plan, a GHG emissions inventory was conducted which is contained in Appendix A-Greenhouse Gas Emissions Inventory (2012 & 2015). **Table 5-1** lists the emission source and their respective estimated emissions for 2012 and 2015. Scopes 1 and 2 GHG emissions (i.e., those which TLH has influence or control over) represent 6,790 metric tons (MT) or about 21 percent of the overall total GHG emissions for TLH. By comparison, Scope 3 emissions (i.e., aircraft, GSE/APUs, etc.) comprise the majority – 24,762 MT, or roughly 78 percent of the total.

Commercial airplane landing at TLH

TABLE 5-1 TLH 2015 GREENHOUSE GAS EMISSIONS INVENTORY

Emission Source	Greenhouse Gases ($MTCO_{2e}$)[a]		% of Total	
	2012	2015	2012	2015
Scope 1 - Airport				
Ground Access Vehicles (GAV)[a]	368	352	1%	1%
Stationary Sources	4,134	4,136	13%	13%
Subtotal	4,502	4,488	14%	14%
Scope 2 - Airport/Tenant				
Electrical Usage	2,437	2,302	8%	7%
Subtotal	2,437	2,302	8%	7%
Scope 3 - Tenant/Public				
Electrical Usage	2,437	2,302	8%	7%
Subtotal	2,437	2,302	8%	7%
Electrical Usage	2,437	2,302	8%	7%
Subtotal	2,437	2,302	8%	7%
Electrical Usage	2,437	2,302	8%	7%
Subtotal	2,437	2,302	8%	7%
Waste Management [e]	493			
Total Emissions [f]	31,552		100	

a. GAV include Airport employee vehicles, tenant vehicles, and passenger vehicles traveling on-airport roadways.
b. Aircraft emissions based on landing/take-off (LTO) cycle, including start-up.
c. GAV includes Airport employee vehicles, tenant vehicles, and passenger vehicles traveling off-airport roadways.
d. GSE includes tenant operated equipment such as belt loaders, baggage tractors, etc.
e. Waste management represents emission reductions and are reported as negative values.
f. Values may reflect rounding. This total does not account for waste reduction.
Source: KB Environmental Sciences, Inc. Greenhouse Gas Emissions Inventory (2012&2015) prepared for Michael Baker International, 2017.

WHAT HAVE WE ALREADY ACCOMPLISHED?

Solar Energy

The Airport has increased its efforts to reduce fossil fuel reliance and increase sustainable energy production options with the planning and construction of solar farms in addition to the existing solar units at the terminal. The existing solar units were installed in 2011 and are located on the terminal roof. These units have a 75 KW capacity and generate 9,000 KWH/month, which is ~2.4% of the terminal's usage.

Planning for two voltaic solar farms began in 2016. Construction of the first solar farm began in early 2017 and was completed on December 31, 2017. The first solar farm is on 120 acres and produces 20 megawatts of active current (AC) of green electricity that will get fed directly into the City of Tallahassee's power supply. The second solar farm, a 40-megawatt facility is in the design phase and is scheduled to be constructed in 2019.

Solar panels at TLH Terminal

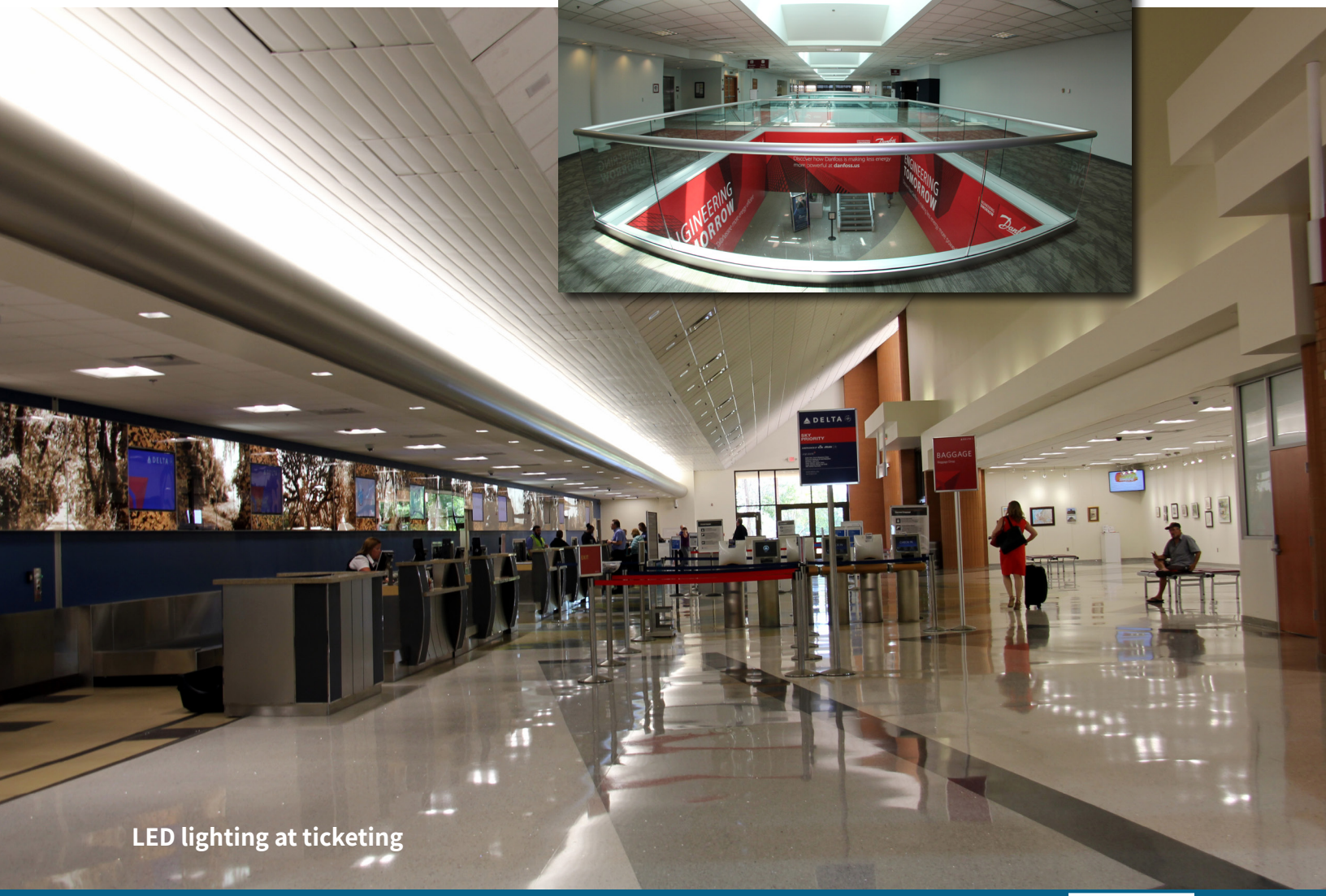
LED Lighting

The Airport currently has a total of 1,064 LED lights installed in the Airport buildings and 907 LED lights installed on the airfield. LED lights have been incorporated into current and future construction projects at the Airport including the terminal modernization project.

Natural Lighting

The Airport terminal has several skylights that allow natural light to filter through from the second floor to the first floor. The natural light at the center of the terminal allows for ample spacing between the LED lights fixtures on both floors thereby reducing energy cost. As part of the Terminal Modernization project, glass walls were incorporated to allow natural light into the building providing passengers exterior views and improved wayfinding.

Terminal skylight



LED lighting at ticketing

Electric Vehicle Charging Stations

TLH has installed several free electric vehicle charging stations in the short-term parking area. The charging stations are in front of the terminal, close to the terminal entrance. Both all-electric or hybrid-electric vehicles capable of receiving a charge for free.

Electric vehicle charging station at TLH

HOW WILL WE REACH OUR GOALS?

The Airport has identified several potential initiatives to meet its energy goals and objectives. These initiatives vary in their type, degree of effectiveness, and cost. Some of these initiatives are new and derived from industry best practices, internal Airport brainstorming, and stakeholder visioning. Others are a continuation, or expansion of initiatives that are already in place. TLH will pursue these initiatives depending on their anticipated likelihood of success, feasibility, and available staffing and budgetary constraints.

- Define an energy management program.
- Make a terminal-wide switch from incandescent bulbs to LED, where allowed.
- Expand the use of daylight harvesting controls that dim/turn off lighting in appropriate daylight conditions.
- Explore opportunities to increase the use of photovoltaic energy options at the Airport.
- Where appropriate, retrofit the Airport with motion sensor lighting in administrative areas to decrease unnecessary energy consumption.
- Identify and evaluate future opportunities for energy conservation and air quality improvements associated with TLH expansions.

Glass wall allowing natural light in the terminal

- Conduct sustainability awareness training for employees to reduce excessive energy use.
- Research grant opportunities for renewable energy, retrofits, and equipment upgrades.

HOW WILL WE MEASURE PROGRESS?

At the January 2018 visioning meeting, several metrics were established for measuring the progress and success in meeting the energy goals and objectives:

- Reduce the annual total airport electricity usage
- Reduce annual total airport electricity costs
- Reduce annual amount of fuel consumption by Airport and tenant vehicles
- Increase the number of alternative fuel vehicles in use
- Increase the annual total megawatt output from solar farms

Golf carts used by TLH FBO

Solar farm at TLH

SIX

TLH TERMINAL LOOP

Chapter 6 NATURAL RESOURCES

TLH property includes 2,490 acres of developed and natural communities including mixed wetlands hardwoods, longleaf pine – xeric oak, upland hardwood forests, upland coniferous forests, and pine flatwoods. These resources provide habitat for a wide variety of vegetative communities and terrestrial wildlife. TLH is conscious of the natural habitats present on its property and is dedicated to preserving them and educating the community on the role natural resources play in creating a sustainable future. This chapter discusses the natural resources found at TLH and their approach to managing them.

GOAL

To protect the Airport's natural environment and water quality

OBJECTIVES

- Implement on-Airport natural resources mitigation to protect species of concern while remaining in compliance with the Wildlife Hazard Management Plan
- Minimize adverse environmental impacts
- Achieve a balance of development and environmental biodiversity values

State Protected Gopher Tortoise

Protected Bent Golden Aster in Leon County

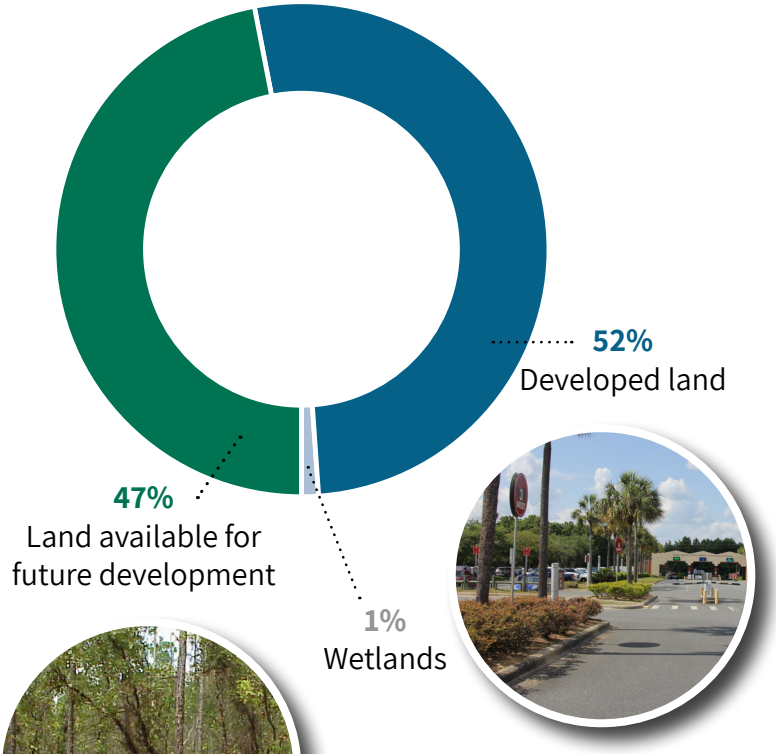
WHERE ARE WE NOW?

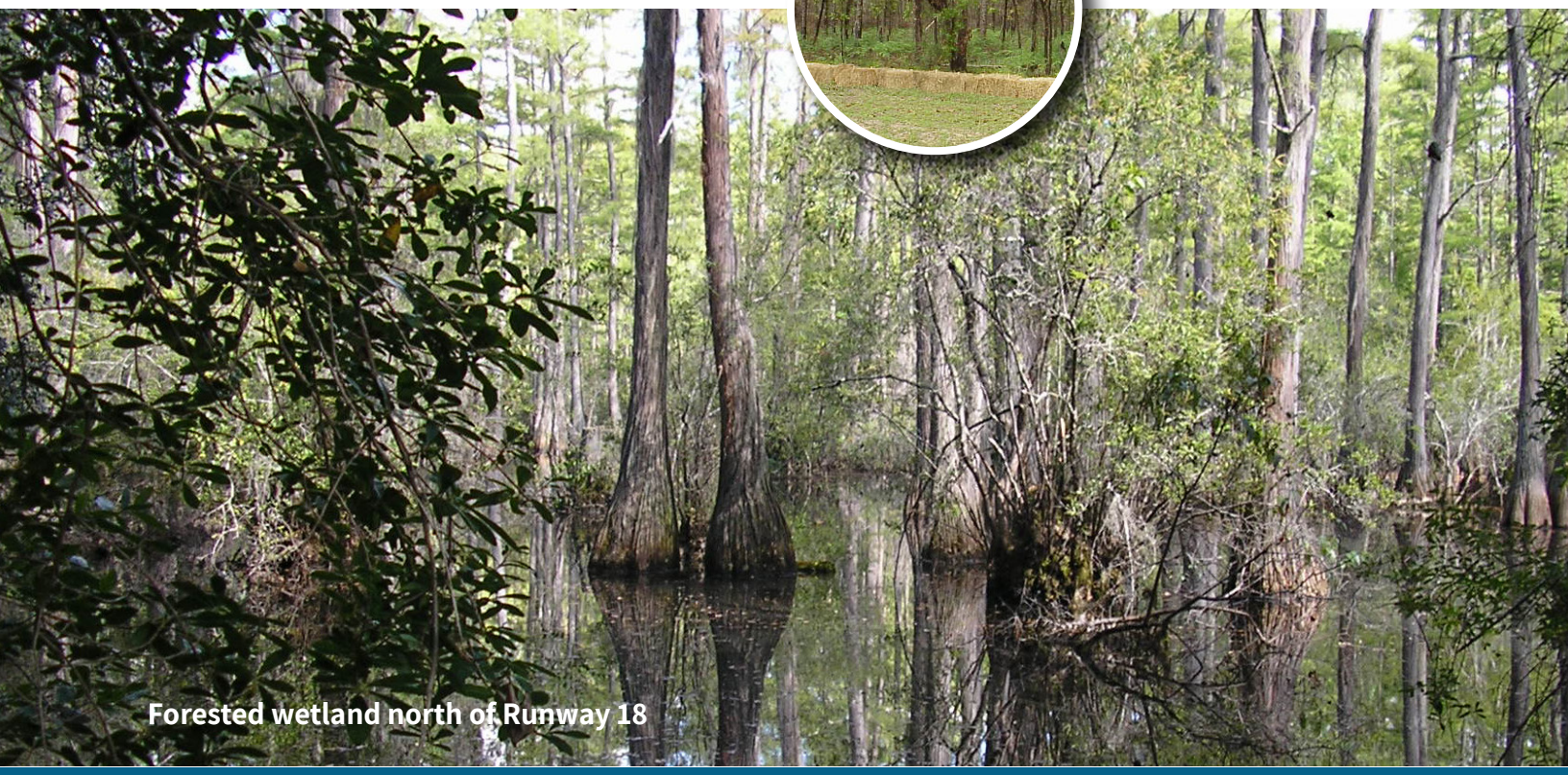
Natural Environment and Wildlife

The Tallahassee area predominantly consists of hilly upland terrain inhabited by pine flatwoods and plantations, mixed hardwood coniferous forests, fallow cropland and other open land habitats, and borders the northern end of the Apalachicola National Forest. The protection of valuable natural resources in and around the Airport is of concern to the City.

Figure 6-1 shows the amount of developed land, land available for future development, and preserved land present at TLH. There is a large amount of developable land present at the Airport, which allows for future Airport expansion and construction of additional facilities. Of the developable area present at the Airport, 1% is wetlands.

FIGURE 6-1 Airport Land Use





Forested wetland north of Runway 18

Figure 6-2 displays the land use and land cover types on Airport property[1]. Sustainability of the Airport is dependent on smart planning and innovative use of green initiatives during expansion projects to increase profitability of the Airport while also ensuring conservation of natural resources. **Figure 6-1** displays the Airport property by developed and available land for future development land use types. Upland forest represents the largest developable area which consists of pine plantations, pine flatwoods and plantations, and mixed hardwood trees and pine forests. As recent as 2015, trees were removed in areas that are adjacent to taxiways and runways to comply with FAA's wildlife hazard management guidelines.

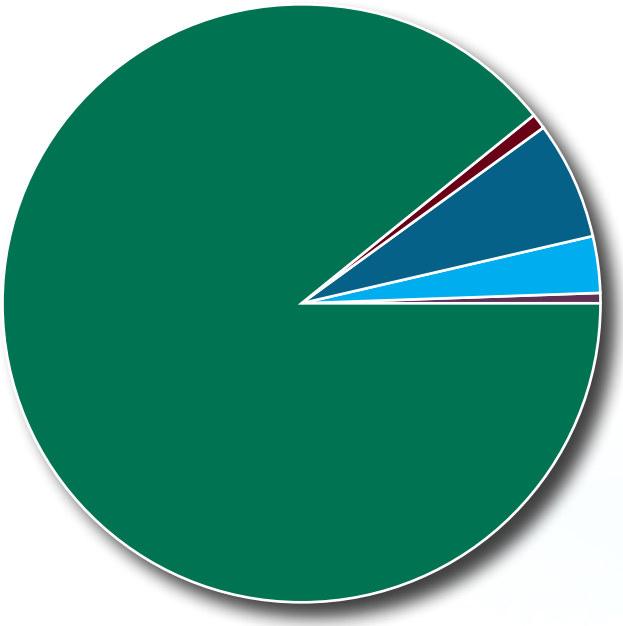


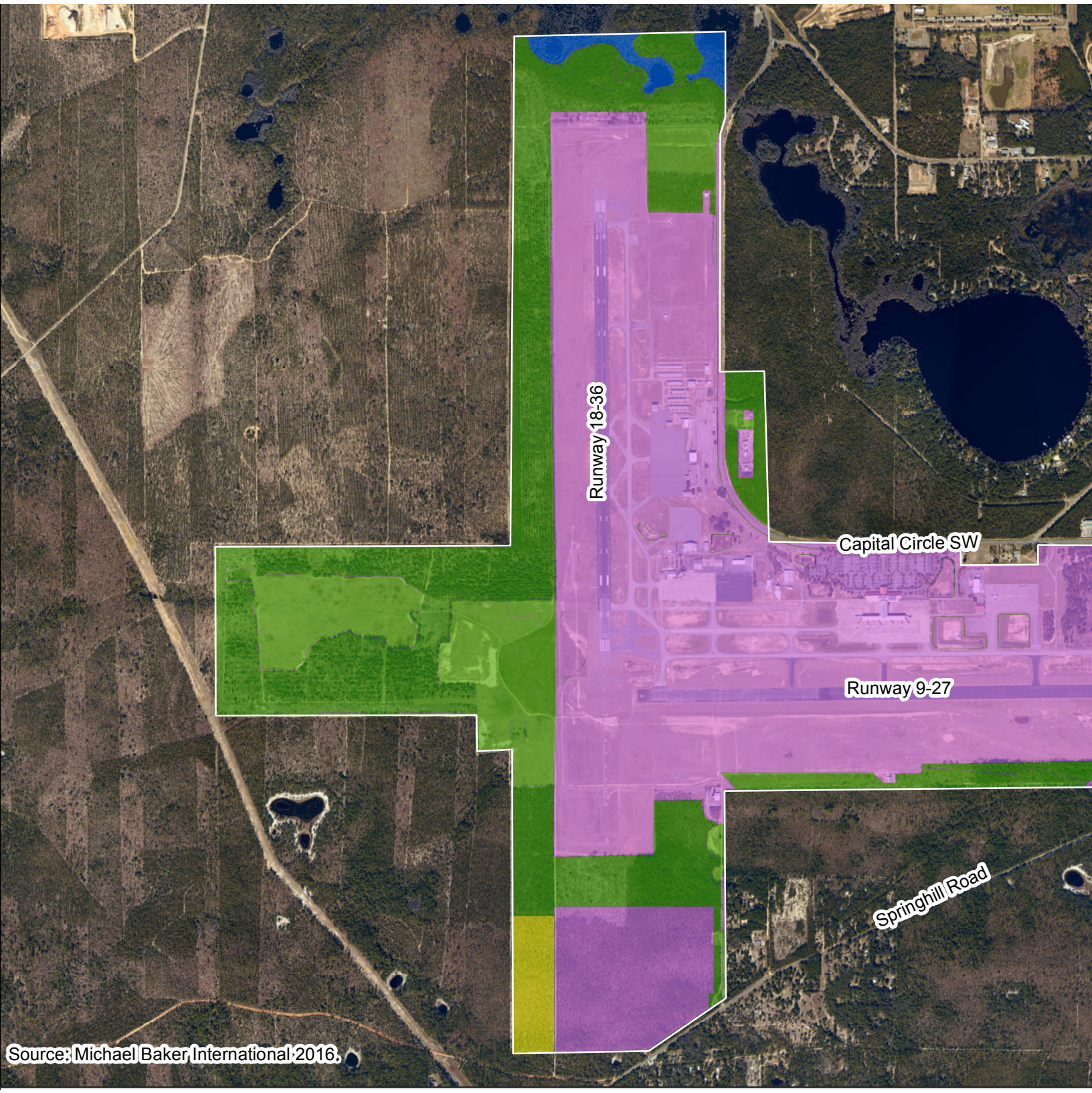
FIGURE 6-2 Developable Land Use Types on Airport Property (Acres)

969	Upland forest
5	Water
33	Wetlands
69	Agriculture
10	Range land

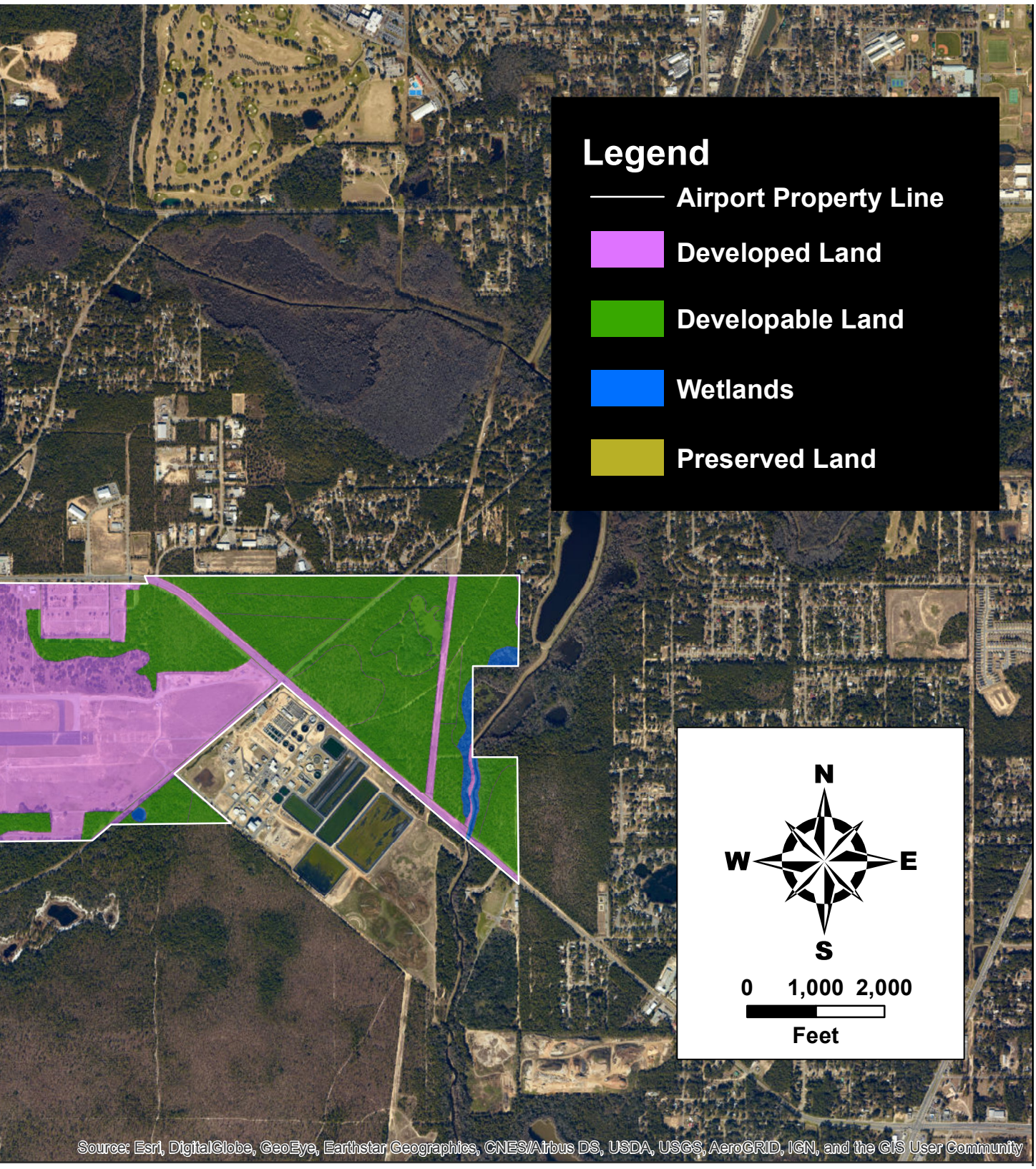
[1] North West Florida Water Management District Land Use and Land Cover Codes GIS Data Layers (2012-2013).

Available land for future development southwest of Runway 18-36, outside the perimeter fence at TLH

FIGURE 6-3



Source: Michael Baker International 2016.


Legend
Airport Property Line
Developed Land
Developable Land
Wetlands
Preserved Land
N
W
E
S
0 1,000 2,000
Feet
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

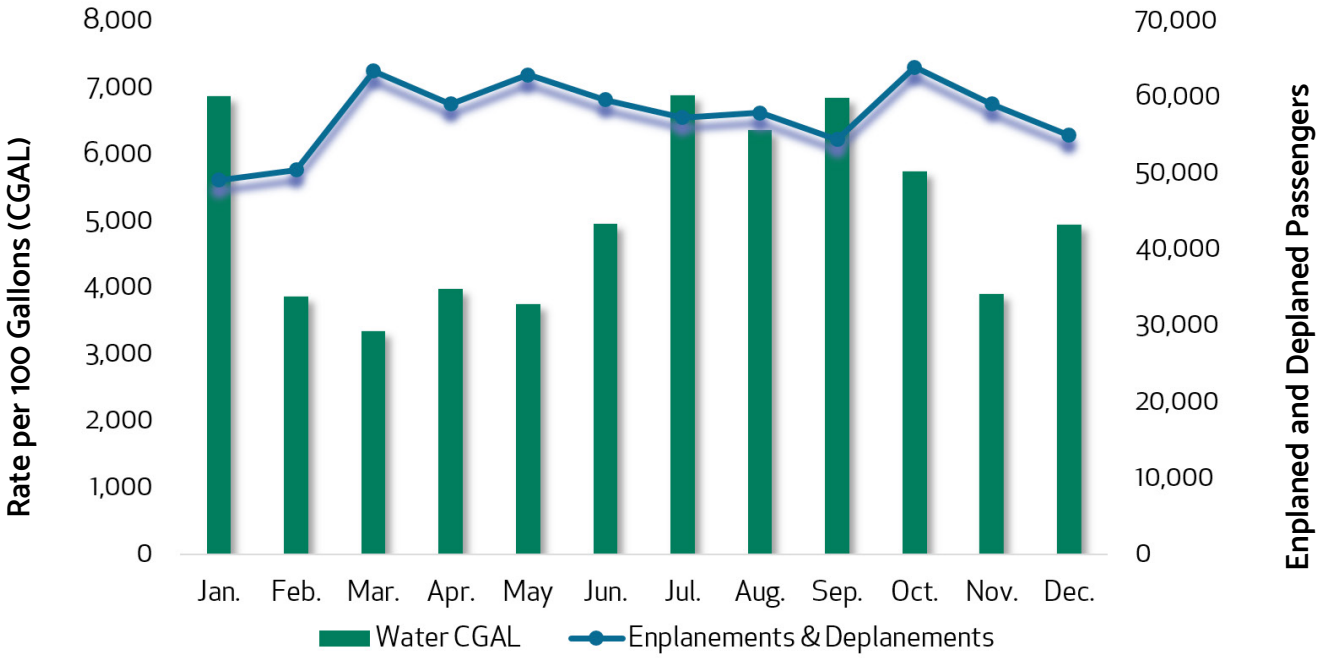
Water Conservation and Quality

Potable water, stormwater, and groundwater, are considered to be of primary importance in Florida and the Southeastern United States. Sustainability of not only the Airport but also the surrounding communities relies on the conservation and the quality of these water resources. Increasing overall efficiency and lowering the usage of potable water results in resource conservation and cost savings.

Figure 6-4 provides a snap shot representation of the total yearly potable water use compared to the foot traffic at the TLH terminal. Foot traffic is determined by the amount of enplaned and deplaned passengers within the Airport.


Sensor flow water faucets at terminal restrooms

FIGURE 6-4 Foot Traffic Related to Potable Water Usage (2015)



WHAT HAVE WE ALREADY ACCOMPLISHED?

Gopher Tortoise Conservation Area

In 1993, TLH established a 30-acre Gopher Tortoise Conservation Area located in the southern portion of the Airport's property, southwest of the tower. A conservation easement was placed on the designated conservation area to ensure no development would occur on that parcel of land.

The Airport developed a Habitat Management Plan for the Gopher Tortoise Conservation Area to outline the management measures that will be implemented to provide for an optimal gopher tortoise habitat. A prescribed burn was done in 2003, followed by a gopher tortoise survey and timber clearing in conjunction with the Florida Department of Forestry in 2005, and a fuels assessment to evaluate the area for another potential growing season burn in 2006.

Beginning in 2003 and continuing through 2007 when full capacity was reached, gopher tortoises that would have been impacted by airport development projects were relocated to the conservation area. State standard relocation permits were acquired for all relocation efforts, and qualified biologists surveyed the areas to be developed to ensure no tortoises remained.

1 TLH Gopher Tortoise Conservation Area before tree clearing

2 TLH Gopher Tortoise Conservation Area after tree clearing

3 TLH Gopher Tortoise Conservation Area 3 months after tree clearing

3

Perimeter Wildlife Fence

In 2002, the Airport used scientific data, specifically on how high a deer can jump to design and construct their perimeter wildlife fence. The fence was designed with 10-foot tall chain link material with 3 rows of barbed wire on top to prevent deer and coyotes from entering the Airport. It included a concrete footer to prevent gopher tortoise and other burrowing mammals from digging under the fence to enter the Airport. The Airport opted to use a concrete footer which would last longer than buried chain link material that would rust over time and would have to be replaced. As an added benefit, the fence posts are protected from corrosion because they are encased in concrete. The concrete footer also provides more stability to the fence. Deterring wildlife from entering the airport especially in areas with high aircraft activity minimizes the risk of a wildlife strike, enhances safe aircraft operation and essentially protects both humans and animals from harm.

Wildlife fence under construction in 2002

Perimeter Wildlife Fence in 2018

Tree Mitigation Bank

In 2005, the Airport established a Tree Mitigation Bank that consists of trees that were planted and preserved in the Noise Mitigation Area. There is a total of 33,485 trees in the Noise Mitigation Area, of which 3,226 trees provided 14,789 tree mitigation credits that the Airport can use for future development. There are 31 species in the bank, the most prevalent of which are water oak, willow oak, cherry laurel, dogwood, live oak, red maple, black cherry and loblolly pine. At the time of the tree bank establishment, 259 trees did not meet the City's Land Development Code criteria for preservation. These 259 trees will be added to the mitigation bank at the Airport's discretion or when additional trees are needed for the Tree Mitigation Bank. These trees also serve as a noise buffer to the surrounding community and provide habitat to native wildlife and plant species.

Newly planted pine trees in 2005 at the Tree Mitigation Bank

Water bottle filler with auto shut-off

Water-Efficient Fixtures

A total of 49 sensor flow faucets were installed in the Airport terminal bathrooms as part of the Airport's renovation efforts. A water bottle filling station was also installed between the drinking fountains on the second floor of the Airport terminal. New buildings are required to use water conserving plumbing fixtures. Tenants are also encouraged to conserve water.

Proactive Stormwater Pollution Prevention

The Airport has an up-to-date Stormwater Pollution Prevention Plan that prevents or minimizes the likelihood of pollutants such as oil and other petroleum products from entering the City's stormwater management system or seeping into the ground and potentially contaminating groundwater. Although, this plan is a regulatory requirement, the Airport proactively engages tenants and provides annual site evaluations of their tenants' facilities as well as providing a yearly interactive training attended by both Airport staff and tenants that handle oil and oil products.

Annual oil-water separator inspection

Stormwater Master Plan

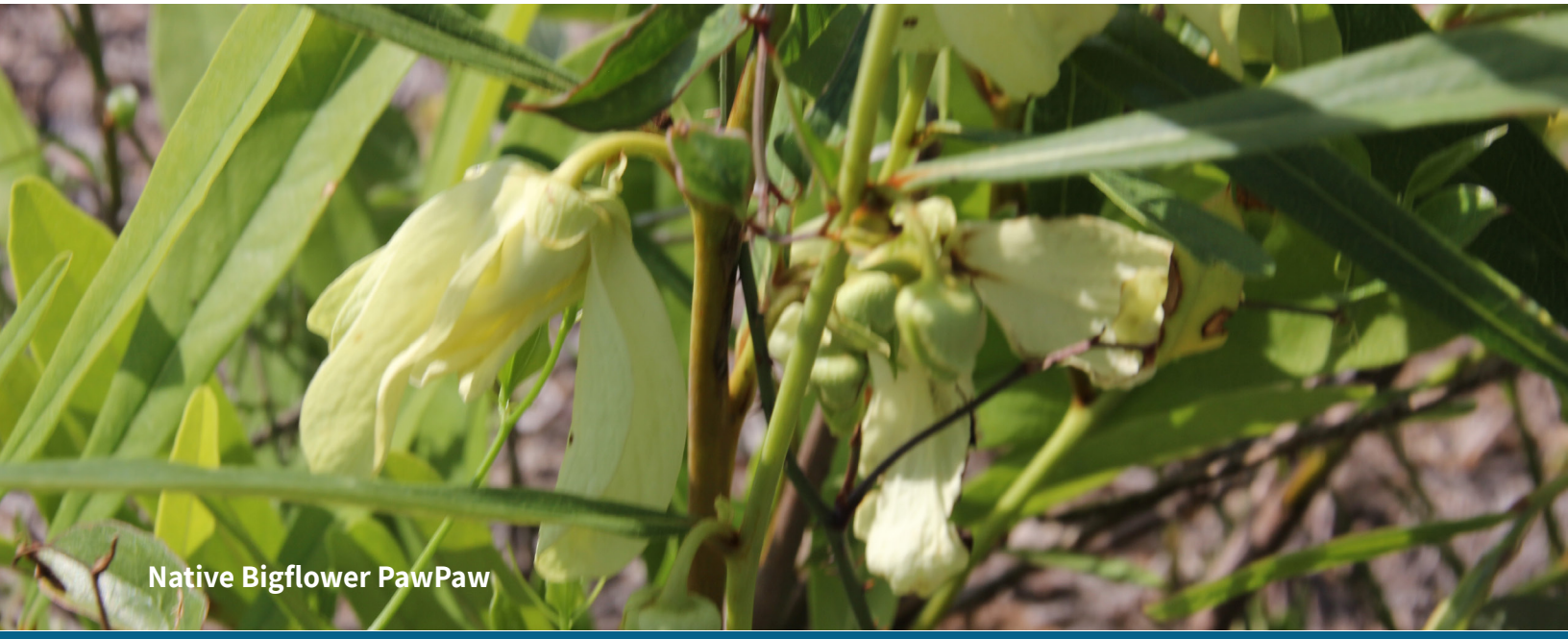
In 2012, TLH updated the Master Stormwater Management Plan for the airport to review and compile previously prepared drainage studies and design reports. As part of the plan, TLH performed geophysical surveys to identify evidence of underground karst features and determine soil characteristics. The plan also included an analysis of the existing drainage system and facilities at the Airport, and made design recommendations for improvements to the Airport's stormwater management system. TLH's stormwater management system consists of 23 drainage basins. A combination of dry ponds, open ditches, swales, oil water separators, and pipes discharge to these basins. Keeping track of the various stormwater management facilities at the Airport allows the Airport to plan stormwater treatment facilities holistically.

Drainage ditch near Taxiway B

HOW WILL WE REACH OUR GOALS?

The Airport has identified several potential initiatives to meet its natural resource goals and objectives. These initiatives vary in their type, degree of effectiveness, and cost. Some of these initiatives are new and derived from industry best practices, internal Airport brainstorming, and stakeholder visioning. Others are a continuation or expansion of initiatives that are already in place. TLH's implementation of these initiatives will depend on their likelihood of success, feasibility, and staffing and budgetary constraints.

- Develop and implement sustainable landscaping guidelines requiring low-maintenance, drought-tolerant, native plants that comply with the Wildlife Hazard Management Plan.
- Update future contract language to require the contractor to develop a plan to protect native vegetation when possible during construction activities.
- Continue to track potable water use at the Airport past baseline to check increase in water conservation.
- Evaluate the potential for installing gray water or rain water collection and reuse devices in future expansions and renovations.
- Provide guidance to tenants for consolidated storage of materials and methods to minimize impacts to the environment.
- Increase protection off Airport wetlands and critical habitats through partnerships with regulatory agencies and local conservation groups.



Native Bigflower PawPaw

HOW WILL WE MEASURE OUR PROGRESS?

At the January 2018 visioning meeting, several metrics for measuring the progress and success of meeting the natural resources goals and objectives were developed:

- Overall composition of Airport land use (acres per land use category)
- Increase the number of plants relocated or donated to a local plant society
- Maintain the number of acres of sensitive Airport land preserved
- Decrease total potable water consumption per year
- Decrease the number of reportable hazardous materials spills (>25 gallons)

Air Traffic Control Tower

TLH Airfield

Lady Lupine

SEVEN

Janitorial Team Member at TLH

Chapter 7 WASTE MANAGEMENT

With growing populations comes increased accumulations of waste to deal with. Identifying and managing waste streams is imperative to conducting a business in a sustainable manner. It reduces the burden on local landfills and waste processing plants. Waste management involves not only the disposal and treatment of waste but the conscious use and possible re-use of materials and supplies. This chapter reviews the current initiatives, storage, and handling of waste at TLH.

GOAL

Improved recycling and reusable product usage while decreasing the amount of total solid waste at the Airport

OBJECTIVES

- Increase recycling efforts
- Identify and address largest sources of waste generation
- Establish methods of calculating and characterizing waste streams
- Partner with airline and rental car tenants with established recycling plans to increase total recycling output

Janitorial Team Member at TLH

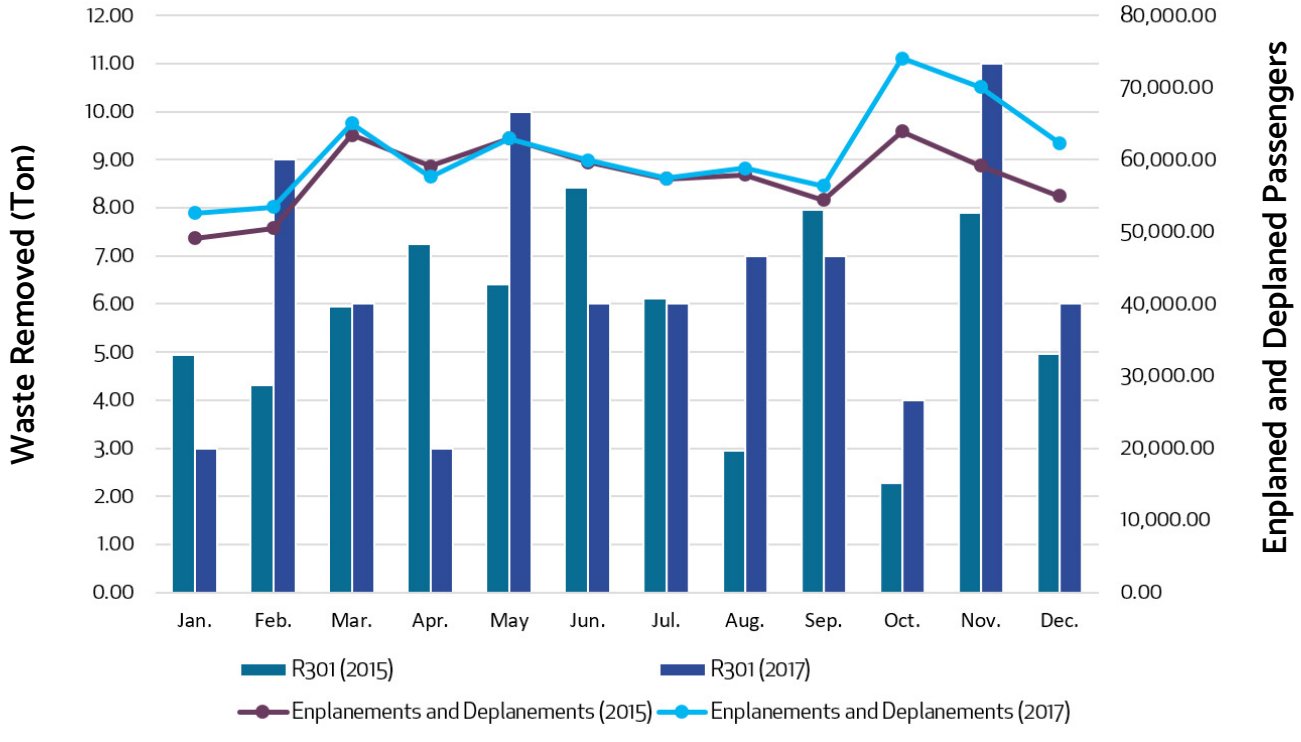
WHERE ARE WE NOW?

R301 – Terminal Trash Compactor

From construction materials to office supplies, TLH uses a variety of materials and products associated with airport operations/management and infrastructure improvements. The Airport is implementing a Reduce, Reuse, and Recycle Plan (3R Plan) in concert with the rollout of the Master Plan Update and this SMP. The 3R Plan is a separate document that details improvements to the Airport's current waste management strategies. Some of these strategies include increasing recycling equipment options in the terminal and developing a waste characterization to evaluate the Airport's waste profile while promoting green waste management. For further clarification on recycling efforts employed by the Airport please refer to the 3R Plan.

R301 is the identifying number for the terminal trash compactor where compactable waste generated inside the terminal is dumped. **Figure 7-1** illustrates the baseline year (2015) and

FIGURE 7-1 Baseline Terminal Waste Generated at TLH (2015 & 2017)



2017 weight (in tons) generated at the Airport in comparison to the number of passengers who used the terminal, represented by enplanements and deplanements. 2017 data was added to show the year that additional recycling bins were added to the terminal. Figure 7-1 shows how even with an increase in foot traffic during October, the addition of terminal side recycling bins has helped to divert/lower recorded trash from going into R301 terminal compactor. The November billing cycle for servicing R301 was higher due to an additional R301 compactor service within that month leading to an increase in service fee cost and increased tons for that month.

Airport Recycling Capabilities

Currently, the Airport has a small-scale recycling initiative that involves cardboard, glass, paper, and plastic. The Airport's current recycling capability is described on the following pages.

The Airport's improvements to recycling operations are discussed in detail in the TLH 3R Plan.

Recycling cans in TLH

Recycling bins at TLH

Single and Multi-Stream Recycling Bins

In October 2017, twelve 38-gallon, multi-stream recycling bins were added to the terminal to increase passenger recycling and improve overall recycling of the Airport. The 12 terminal recycling bins are emptied daily and the contents are hauled to the six-cubic yard, single-stream, front loader recycling dumpster located outside of the fence. The front loader dumpster is serviced by the City on a weekly basis and the contents are taken to Marpan for processing.

TLH has three 35-gallon and one 96- gallon City of Tallahassee (City) recycling containers located under the terminal that take aluminum cans, glass, and plastic products. The containers are picked up by the City Waste Management Department and transported to the Marpan Recycling Facility. Once per week, the recycling bins are emptied on a pre-established route by the City Waste Management Department. In 2016 a single-stream recycling, front loading, eight cubic yard bin was added to increase recyclable output from the Airport. This bin is serviced by the City and the contents are taken to Marpan for processing.

Recycling cans in TLH

Single stream recycling bins

Cardboard Bailing

Two eight cubic yard bins are located outside the security identification display area fence and near the deplaned waste dumpsters. These containers house dry cardboard waste from the Airport. The cardboard is collected once a week, along with the recycled plastic and paper from the bins under the terminal, and taken to the Marpan recycling facility for processing and recycling.

Currently, the cardboard from these containers is not specifically tracked or recorded but is lumped together with the other recycled goods picked up along the City's Waste Management collection route. The lumped sum of recycled goods processed at Marpan is credited back to the City and added to calculate the total recycled goods.

Marpan Cardboard Bins at TLH

TLH Recycling Dumpster

Used Oil and Battery Recycling

As part of the TLH annual SWPPP inspections, the Airport conducts an inventory of hazardous materials that are stored and used by the Airport and their industrial tenants. Multiple industrial tenants at TLH actively recycle used oil, oil filters, anti-freeze batteries, paper and plastic. The proper storage and reclamation of these used products is documented in the Airport's Annual Stormwater Pollution Prevention Plan (SWPPP) Inspection Report. The TLH Annual SWPPP Inspection Report details the Airport's and their industrial use tenants' hazardous and non-hazardous material recycling efforts. **Table 7-1** lists, as of January 2017, the industrial use tenants that are currently recycling petroleum products and other materials that are potential stormwater pollutants.

TLH tenant used oil and antifreeze containers

TLH tenant used oil and oil filter container


TLH tenant used oil filter container

TABLE 7-1 Industrial use Facility Recycling Efforts at TLH (January 2017)

Facility	Recycled Material				
	Oil	Oil Filters	Aluminum	Plastic	Paper
Aircraft Rescue and Fire Fighting				✓	✓
Avis/Budget	✓	✓	✓		
Base Maintenance Complex	✓	✓			
Dade GSE	✓	✓			
Enterprise/Alamo/National	✓	✓		✓	✓
FedEx	✓	✓	✓	✓	✓
Flightline Group	✓				
Florida Fish and Wildlife Conservation Commission	✓	✓			
Hertz/Dollar Thrifty	✓				
Lively Aviation	✓				
MillionAir FBO	✓		✓	✓	✓

Construction Materials Recycling

The Airport recycles construction and demolition debris when possible. A roll off container for construction debris that can be recycled is located near the maintenance facility during large construction projects. Fencing material and other reusable construction debris such as millings from pavement rehabilitation projects are stored for future use.

TLH fencing materials stockpile

HOW WILL WE REACH OUR GOALS?

The Airport has identified several potential initiatives to meet its solid waste and objectives. These initiatives vary in their type, degree of effectiveness, and cost. Some of these initiatives are new and derived from industry best practices, internal Airport brainstorming, and stakeholder visioning. Others are a continuation, or expansion of initiatives that are already in place. TLH's implementation of these initiatives will depend on their likelihood of success, feasibility, and staffing and budgetary constraints.

Water Bottle Filling Station at TLH

- Implement a 3R Plan to reduce the waste stream at TLH through source reduction purchasing strategies, collection station equipment, recycling, and tenant education.
- Contact Airline providers about partnering in recycling efforts.
- Incorporate recycling topics into the staff and tenant stakeholder meetings.
- Encourage passenger participation in the terminal's recycling program via signage and bin labeling.
- Promote recycling at the security checkpoint where passengers discard plastic beverage containers and other recyclables by placing recycling bins in accessible and convenient locations.
- Provide easily accessible recycling areas consistent with the Airport program that facilitate successful collection services for recyclables.
- Use different colored waste bags to easily distinguish recyclables from garbage.

HOW WILL WE MEASURE OUR PROGRESS?

At the January 2018 visioning meeting, we identified several metrics for measuring the progress and success in meeting our solid waste goals and objectives:

- Decrease in the annual estimate of solid waste generated at TLH
- Decrease in the annual cost of solid waste disposal
- Increase in the annual estimated percentage of waste that is recycled

Janitorial Team Member at TLH

EIGHT

TLH STAFF

Chapter 8 IMPLEMENTATION & MONITORING

Successful implementation of an SMP requires a commitment from senior management. The SMP must be integrated into daily operations and supported by a formalized structure that monitors and manages the SMP. Champions are the staff who will monitor and manage each element's goals, objectives, and initiatives. Champions are active participants in sustainability initiatives at the Airport, and they understand the roles and responsibilities for upholding and applying the goals, objectives, and initiatives within their element to the breadth of the Airport's management practices and operations.

In addition, secondary champions and support roles promote shared responsibility for sustainability across departments and stakeholders. **Table 8-1** on the following page lists the proposed champions and roles proposed during the January 23, 2018 visioning meeting.

Sustainability Vision Team Recycle

FIGURE 8-1 Champions and Support Roles

ELEMENT	CHAMPIONS & SUPPORT
COMMUNITY	Primary: Airport Business Services Manager Secondary: Director of Aviation
ECONMIC VIABILITY	Primary: Director of Aviation Secondary: Deputy Director of Aviation Support: Manager, Finance and Administration Support: Airport Business Services Manager
MOBILITY & DEVELOPMENT	Primary: Airport Engineer Secondary: Superintendent of Airport Operations Support: Director of Aviation Support: Assistant Superintendent of Airport Operations
ENERGY	Primary: Assistant Superintendent – Airport Facilities Management Secondary: Airport Engineer
NATURAL RESOURCES	Primary: Airport Engineer Secondary: Assistant Superintendent – Airport Facilities Management
SOLID WASTE	Primary: Assistant Superintendent – Airport Facilities Management Secondary: City of Tallahassee Solid Waste Management


Sustainability Vision Team
Green Growth

The Implementation and Monitoring Program Plan is outlined and contained within a separate document.

Sustainability Vision Team Ecofly

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