



2017 Annual Sustainability Performance Report Card

It is with pride and excitement that we share the Greater Orlando Aviation Authority (GOAA) Annual Sustainability Performance Report Card. The information provided here illustrates the efforts of our airport partners to reduce operational waste, mitigate environmental impact and support our community through leadership in sustainability while growing to meet the aviation needs of our region.

NAVIGATION

Click on a category or scroll through document

Reduce Solid Waste

Goal: Increase waste diversion rate from landfill to 50% by 2018



Over 95% of construction waste generated from the Automated People Mover/ Intermodal Terminal Facility (AMP/ITF) is diverted from landfills



GOAA Green Team Challenge Plastic Cap Collection



GOAA's Green Team employs "competitive recycling" to encourage airport partners to recycle for a cause. Together, airport staffers collected 1,081 lbs. of plastic caps that were recycled and diverted from the landfill, in support of **Caps of Love**. Caps of Love is a non-profit organization that provides free wheelchairs to disadvantaged handicapped children under the age of 21, while raising money through recycling of bottle caps.

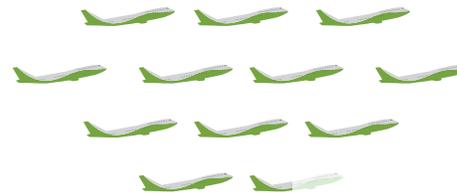
Source: Caps for Love



43.6%
of Goal Reached

Waste Diversion Rate 21.8%

Total Solid Waste Diverted



Equivalent Weight of approximately **11.11 Boeing 747 Aircraft***

*Operating empty weight of Boeing 747-400 Aircraft

10,994 lbs. of textile waste **Diverted**
January–September 2017



Reduce Energy Use

Goal: Reduce energy use intensity by 10% by 2018



Common use terminal equipment allows airlines to share ticket counter/ check-in space, providing for more efficient energy use and passenger flow



Progress Towards Goal (through 2016)



**6.3%
EUI
reduction**

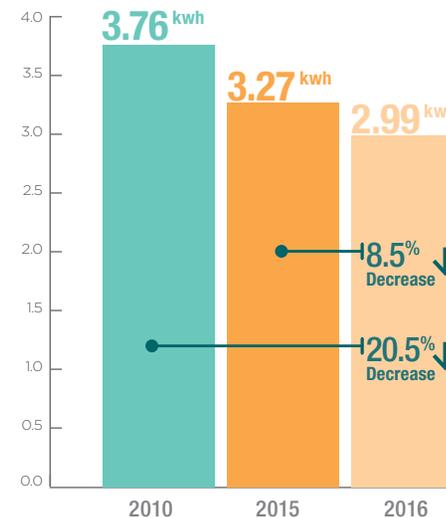
**63%
of Goal
Reached**

Energy Use Intensity (EUI) is a calculation of energy per square foot per year. EUI varies based on climate conditions, user demand, and energy construction measures

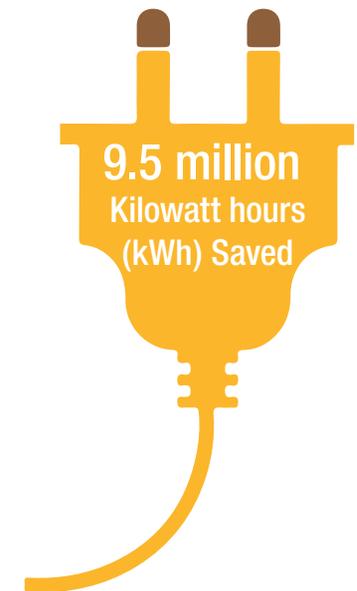
Energy Efficiency Efforts

- > Energy savings from ongoing LED lighting upgrades in garages, terminals and airfield
- > Enhanced building automation
- > On-going high-efficiency air conditioning unit replacements
- > GOAA has developed a 10-year Energy Road Map
- > The Central Energy Plant at Airside 4 houses four efficient magnetic bearing chillers and two cooling towers to reduce the total EUI

Terminal Energy Use (Per Passenger)



Total Energy Savings (2010-2016)



Enhanced Water Conservation

Goal: Reduce potable water use per passenger by 10% by 2018



Goal Surpassed!



Reduction per passenger from 2010

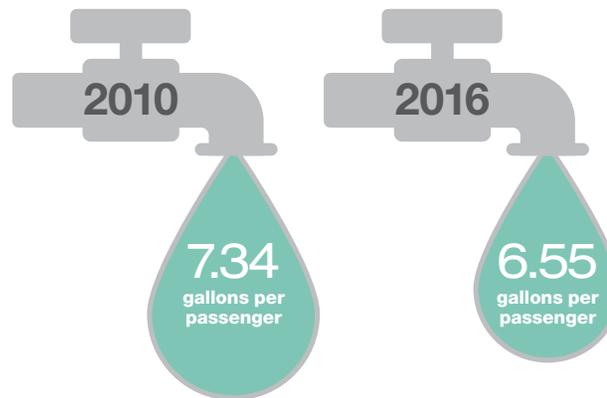


The APM/ITF will incorporate Florida native landscaping to minimize irrigation and fertilizer use

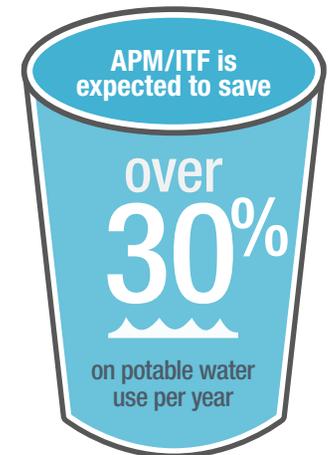
Water Conservation Efforts

- > Low flow sensors and low flow/dual flush in passenger terminal restrooms
- > Replacement of two cooling towers
- > APM/ITF restrooms include aerators, dual flush toilets, high force/low consumption shower heads, and Water Sense labelling on equipment
- > No potable water will be used for irrigation at the APM/ITF and efficient landscape design will result in a 30% water use reduction of non-potable water

Water Use per Passenger



APM/ITF Water Efficiency Designs



Integrate Sustainable Practices into Business Procedures and Written Agreements



GOAA CEO Phil Brown signs the Organizational Sustainability Pledge with the GOAA Green Team in attendance

Highlights

- > The GOAA Purchasing Department provides annual training on Green Purchasing for all GOAA staff
- > GOAA established a default web-based setting for staff office supply purchases of environmentally friendly products
- > Fatima Calkins, GOAA Senior Purchasing Agent, received the Buyer of the Year Award from the National Institute of Governmental Purchasing (NIGP) Central Florida Chapter



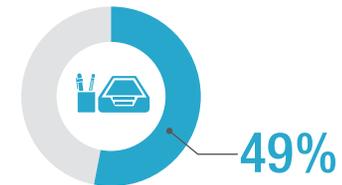
Fatima Calkins, GOAA Senior Purchasing Agent

Revenue Bonds Receive Green Evaluation

GOAA became the first U.S. airport authority to receive S&P Global's Green Evaluation, scoring E1, the highest possible score on their scale. A Green Evaluation is an asset-level environmental credential that builds upon current frameworks of governance and transparency (e.g., Green Bond Principles) and considers approaches for climate resilience and environmental impact, providing investors with a comprehensive picture of the green impact and climate risk attributes of their portfolios.

(source: S&P Global Press Release, August 24, 2017)

Percent Recycled/Green Office Products Purchased



(February 2016 - January 2017)

Items purchased ONLY by the Purchasing Department from Office Depot.

Number of New/Renewed Contracts with Sustainability Language



x2 Doubled Concessions Contract over previous year

Incorporate Sustainable Planning, Design & Construction Practices into all Airport Projects



LEED™, Energy Star, and Water Sense building standards are being used as a baseline on future construction projects and renovations

Highlights

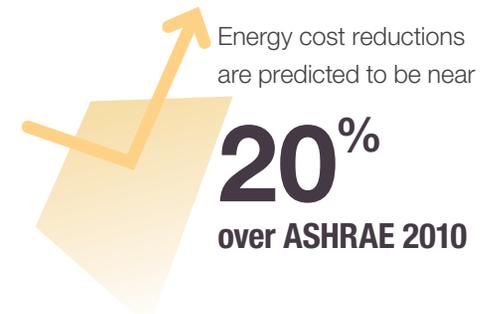
- › Future South Terminal Complex aims to achieve LEED™ Certification

APM/ITF will:

- › Allow passengers to use alternative transportation to access the airport and surrounding community
- › Monitor indoor humidity levels and space controls to protect building air quality and maximize building comfort for occupants
- › Increase use of concrete paving instead of traditional asphalt on roads and parking garage roofs to mitigate heat island effect
- › Only allow the use of carefully selected, low ozone depleting refrigerants

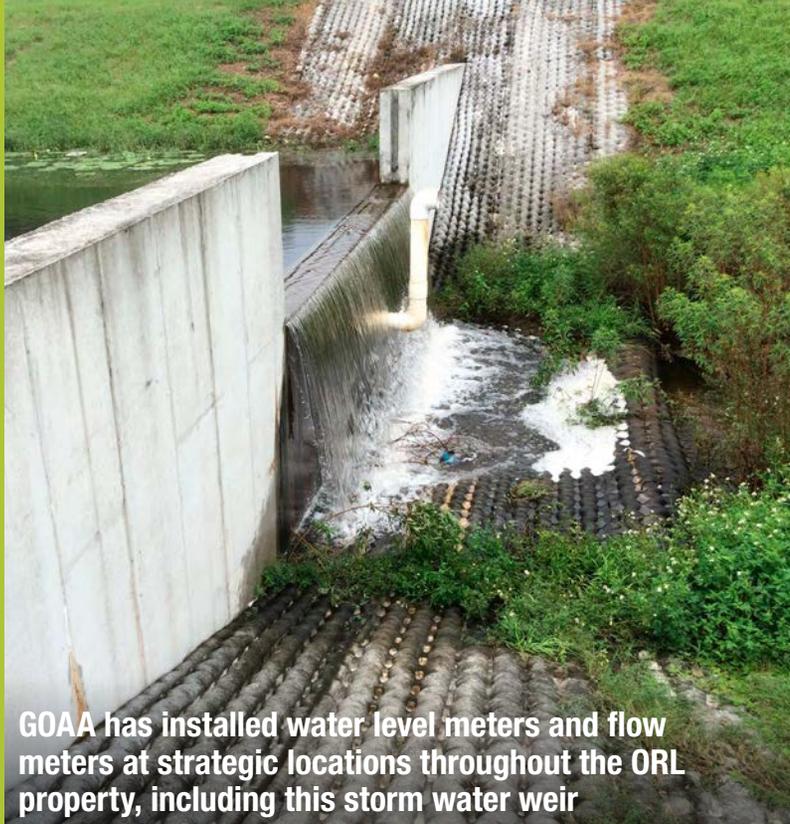
What is the USGBC LEED™ Program?

The U.S. Green Building Council (USGBC) administers LEED™, or Leadership in Energy and Environmental Design. LEED™ is the most widely used third-party verification for “green” buildings with four rating levels. LEED™-certified buildings are resource efficient because they are designed and operated to use less water and energy, and reduce greenhouse gas emissions. GOAA is pursuing LEED™ certification for new and existing buildings (using a campus approach) on MCO property.



The APM/ITF will incorporate LED fixtures, and glass and glazing that reduce heat and glare

Minimize Environmental Impact



GOAA has installed water level meters and flow meters at strategic locations throughout the ORL property, including this storm water weir



GOAA regularly monitors water level and quality at both airports with equipment like this staff gauge installation at ORL

Highlights

- › Low impact design and construction practices
- › Wildlife hazard mitigation and management program
- › Water quality monitoring programs at Orlando International and Orlando Executive Airports
- › GOAA operates an airport noise and operations monitoring system, and hosts a web-based flight tracking system that allows the public to follow, capture and review flight activity around MCO and ORL in near-real time
- › A volunteer Aviation Noise Abatement Committee (ANAC) advocates for the community on issues involving noise

Protection of Threatened Species

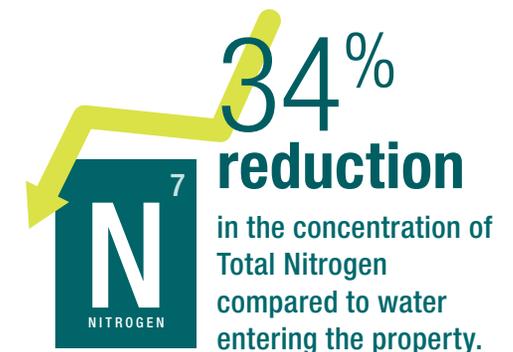


79 Gopher Tortoises safely relocated

within 281.46 acres for future south terminal development

Note: Gopher Tortoise removal was conducted under a conservation permit and an incidental take permit.

Orlando Executive Airport (ORL)



Results from the comprehensive water quality monitoring at the Orlando Executive Airport during 2016.

Reduce Single Occupancy Commuting and Increase Alternative Transportation



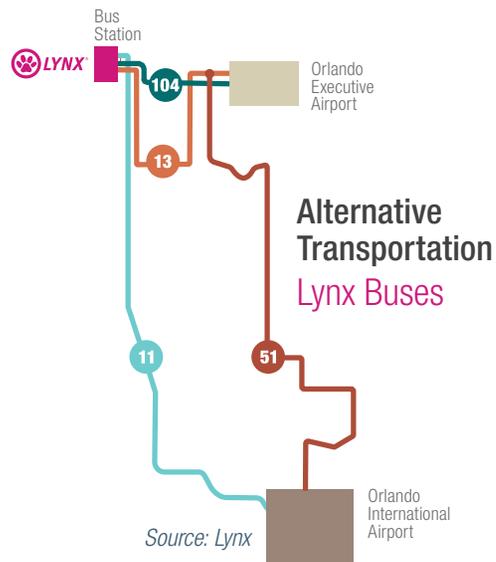
GOAA Department Directors take a ride on Lynx bus routes and Sunrail Commuter Rail to experience alternative transportation access to the Airport

Highlights

- > Outreach events have assisted in engaging employee participation in the alternative transportation program
- > GOAA was named a Best Workplace for Commuters by the University of South Florida's Center for Urban Transportation Research (CUTR)
- > GOAA will meet regional transportation needs as recognized by FDOT. Modes of transportation accommodated by the South APM/ITF:
 - > Rail (Sunrail & Brightline)
 - > Taxis, shuttle buses, public buses
 - > Automated People Movers

Alternative Transportation to MCO and ORL

- > Lynx Bus offers convenient service to world class shopping and entertainment venues, theme parks, and downtown Orlando
- > Two stops at ORL provide hourly round-trip service to the University of Central Florida, and designated Historic Districts in the City of Orlando



SATURDAY,
APRIL 15, 2017
300+
PARTICIPANTS

ORLANDO EXECUTIVE AIRPORT
7TH ANNUAL
RUN FOR THE ANGELS 5K

Proceeds are donated to **Angel Flight Southeast**, a volunteer pilot organization that provides free air transportation to medical facilities for citizens who are financially distressed or otherwise unable to travel via public transportation

Continue Being a Community Leader/ Partner in Sustainability



The Orlando Philharmonic Orchestra performs at Orlando International Airport each year during Liberty Weekend (around the July 4th holiday) and Christmas

Highlights

The GOAA Green Team continues an outstanding program of sustainability education and outreach:

- > Quarterly Sustainability Speaker Series luncheons in 2016
- > Quarterly sustainability newsletter "The Dirt"
- > Monthly volunteer events at Ronald McDonald House and Clean the World



Orlando International Airport Ranked #1 in North America!

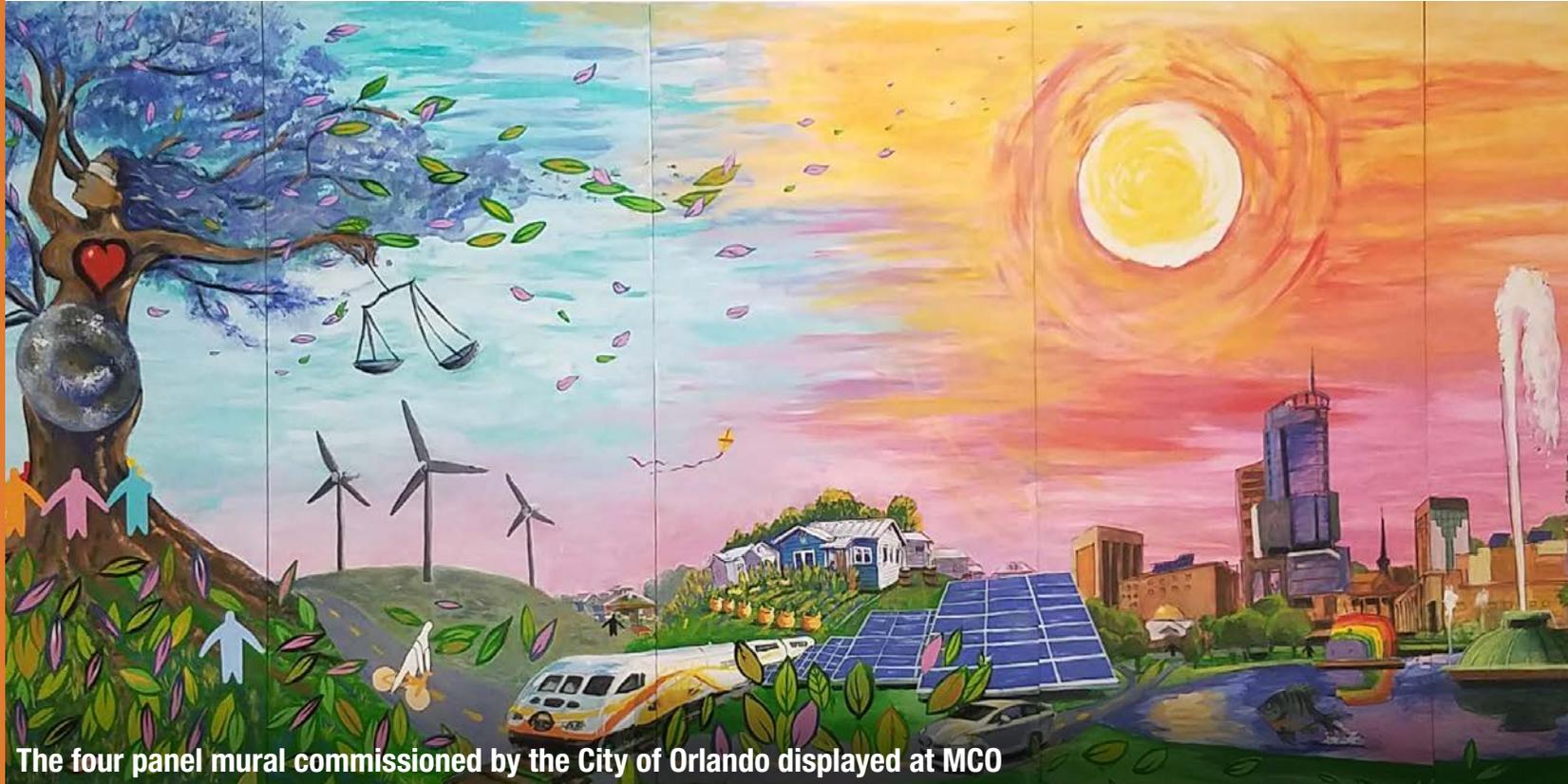


J.D. Power, a global leader in consumer insights, advisory services and analytics has ranked Orlando International Airport as a top airport for Overall Customer Satisfaction in the "mega" airport category (more than 32 million annual passengers)



During the annual Liberty Weekend festivities, GOAA honors an American veteran that has made a significant contribution to aviation in Central Florida with the Colonel Joe Kittinger Award

Continue
Being a
Community
Leader/
Partner in
Sustainability



The four panel mural commissioned by the City of Orlando displayed at MCO

Highlights

GOAA hosted “Sustain Orlando: A Community Response” from May to August 2017. Commissioned by the City of Orlando, the four panel mural was painted by local Orlando artists and made its first stop at MCO.

Local artists include: Harsi Harsi, Charles Mighty, LeAnn Siefferman, Gladiola Sotomayor, and Thomas “Thor” Thorspecken.

**2017
GOAA Passport to
Wellness Program**

-  12 wellness lectures and workshops
-  6 retirement/financial lectures and workshops
-  On-site health screenings
-  On-site fitness classes twice per week

Over **2,000** Participants

EARTH DAY
2017

38 Community Partners

Over **740** Participants

America Recycles Day

36 Community Partners