

# NAVIGATION

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Planning, Design  
and Construction



Environment



Alternative  
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Leader/Partner



## Annual Sustainability Performance Report Card

It is with pride and excitement that we share the Greater Orlando Aviation Authority's (GOAA) Second Annual Sustainability Report. The report illustrates the efforts of our airport community to reduce operational waste, mitigate environmental impact and support our community through leadership in sustainability. This report also outlines our progress towards meeting the targeted goals established within the Authority's Sustainability Management Plan.



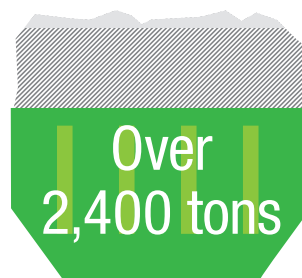
# Reduce Solid Waste

Increase waste diversion from landfill to 50% by 2018

Progress towards Goal (2015):  
Waste diversion rate=18.7%



Construction and Demolition Waste  
Diversion (through 2015)



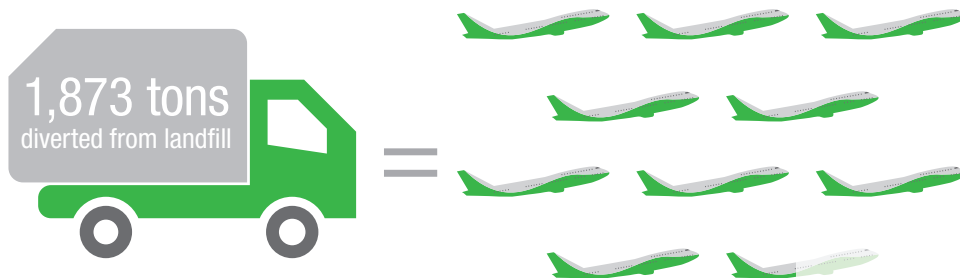
Actual: 94%  
Initial Goal: 75%

Automated People Mover (APM) and Intermodal Terminal Facility (ITF) Construction.

## WASTE DIVERSION AND RECYCLING EFFORTS

- > The Hyatt Regency at Orlando International Airport partnered with the City of Orlando's commercial food waste collection service to divert over 100 tons of compostables from the landfill.
- > GOAA and its partners recycled 3,375 lbs. of textiles from uniforms in 2015 through American Textile Recycling Services.
- > America Recycles Day at Orlando International Airport included 800 participants. The event was hosted to educate employees, business partners, and the traveling public about waste reduction and recycling.

Total Solid Waste Diverted (2015)



Equivalent Weight of approximately 9.4 Boeing 747 Aircraft\*  
\*Operating empty weight of Boeing 747-400 Aircraft



The Bag Monster points a passenger in the direction of a recycling bin at Orlando International Airport's America Recycles Day event in November 2015.



# Reduce Energy Use

Reduce energy use intensity (EUI) 10% by 2018\*

\*Reduction from 2010 baseline year

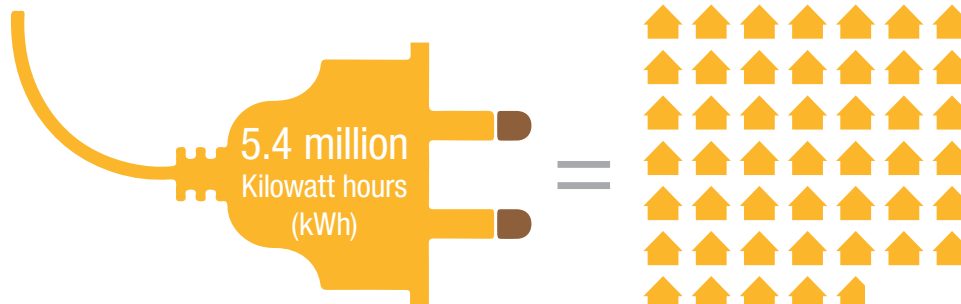
Progress towards Goal (through 2015):  
EUI reduction = 3.5%



35%  
of Goal Reached

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

Total Energy Savings (2010 through 2015)



Equivalent of Powering 467 Homes per Year | 🏠 = 10 homes

Energy Efficient Infrastructure Investments



High efficiency magnetic bearing chillers in Terminal Airside 4 at Orlando International Airport.

## ENERGY REDUCTION EFFORTS

- > GOAA has developed a 10-year “Energy Road Map” and conducted Level 1 ASHRAE\* energy audits for three passenger terminals to determine the energy conservation strategies.
- > At Orlando International Airport, GOAA is implementing the following energy conservation measures:
  - Lighting upgrades throughout campus
  - Enhanced building automation
  - High-efficiency air conditioning unit replacements
- > The Central Energy Plant at Airside 4 will house four efficient magnetic bearing chillers and two cooling towers to further reduce the total EUI.

\* ASHRAE stands for the American Society of Heating, Refrigerating and Air-Conditioning Engineers and a Level 1 audit serves to screen potential conservation measures for further consideration.



# Enhance Water Conservation

Reduce  
potable  
water  
use per  
passenger  
10% by  
2018\*

\*Reduction from  
2010 baseline year

Progress towards Goal (through 2015):  
Per passenger water use reduction from  
2010= 12.1%



## Goal Achieved

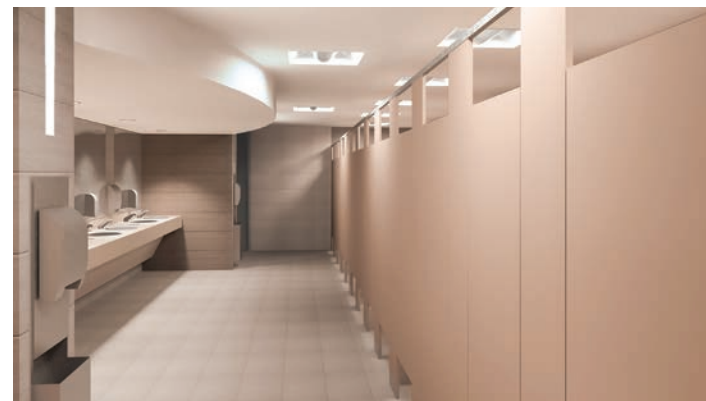
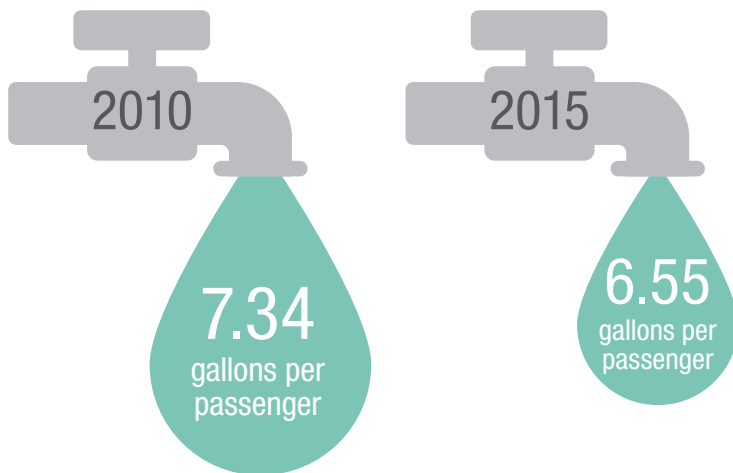


GOAA uses reclaimed water for landscape irrigation.

### WATER USE REDUCTION EFFORTS

- > Passenger terminal restroom renovations include low flow sensors and low flow/dual flush
- > Replacement of two cooling towers from wood to composite will decrease water use by 30%.
- > The south airfield Automated People Mover (APM)/Intermodal Terminal Facility (ITF) is being designed to conserve 30% more water than a traditional building through use of low flow/dual flush toilets and WaterSense equipment and fixtures.

Water Use per Passenger Reduction: 2010 vs 2015



Passenger terminal restroom renovations include low flow sensors and high-efficiency toilets/urinals and faucets



# Integrate Sustainable Practices into Business Procedures and Written Agreements

Incorporate sustainable practices into operational procedures



Concessionaires began using compostable/recyclable materials, utensils and containers after the Food Hall inside Airside Terminal 2 was completely renovated and opened in 2016.

## HIGHLIGHTS

- > The GOAA Purchasing Department provides annual training on Green Purchasing.
- > GOAA has established a default web-based setting for staff office supply purchases of environmentally friendly products.
- > GOAA Purchasing Department staff members recently led the Sustainability Purchasing Workshop for Florida Chapter of National Institute of Government Purchasing (NIGP), and serves as NIGP Sustainability Purchasing Committee Chair.

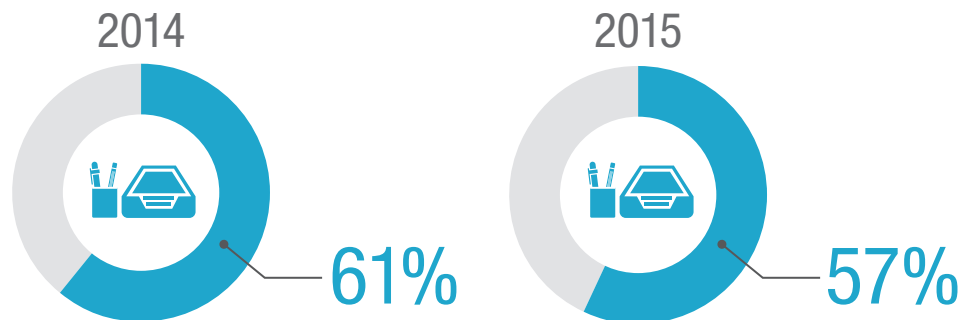
### Progress towards Goal (through 2015)



**2** Concessions Contracts have incorporated sustainable criteria.

GOAA is incorporating sustainability criteria into new contracts.

### Percent of Recycled/Green Office Products Purchased



(February 2014 - January 2015)

(February 2015 - January 2016)

Items purchased ONLY by the Purchasing Department from Office Depot.



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

“Sustainability continues to be a high priority at both Orlando International and Orlando Executive Airports”

- Phil Brown | Executive Director, GOAA

USGBC LEED Certification Building Design and Construction (BD+C), and Building Operations and Maintenance (O+M)

South Airfield Automated People Mover (APM) Intermodal Terminal Facility (ITF) Design and Construction

- > GOAA design standards and guidelines are beginning to incorporate sustainable design criteria as a series of recommendations and modifications based on the lessons learned from the APM/ITF project. LEED, Energy Star, and Water Sense building standards are being used as a baseline on future construction projects and renovations.
- > 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: Certified, Silver, Gold and Platinum. LEED-certified buildings are resource efficient because they are designed and operated to use less water and energy, and reduce greenhouse gas emissions. LEED certification can be obtained for new buildings – Building Design and Construction, or BD+C – and existing buildings - Building Operations and Maintenance, or O+M. GOAA is pursuing LEED certification for new and existing buildings on MCO property.



Construction and renovation projects were highlighted in a recent article published in Centerlines magazine from Airports Council International-North America.



The APM/ITF has been designed to meet the high performance LEED building standards and is on target to pursue certification.



GOAA has begun implementation of the LEED for Building Operations and Maintenance (O+M) certification process with USGBC.



# Minimize Environmental Impact

Low impact design and construction practices

Wildlife hazard and mitigation management program

Water quality monitoring program



## HIGHLIGHTS

- > The APM/ITF site development and design have incorporated low impact and preservation practices with a focus on maintaining wildlife diversity and quality of waterways, habitats, and lakes.



## Water Quality Monitoring



- > To protect our surface waters, GOAA continuously monitors levels of nitrogen, phosphorus and suspended solids at infall and outfall sites at Orlando International Airport and Orlando Executive Airport. Water leaving Orlando International Airport has shown a 54% decrease in phosphorous loads compared to water entering the property.

Orlando International Airport has the 4th largest airport landmass and is only one of ten airports in the US that have a robust in-house Wildlife Management Program.



# Reduce Single Occupancy Commuting and Increase Alternative Transportation

Alternative transportation use

Low emission/electric vehicle parking

Collaboration with ReThink Your Commute



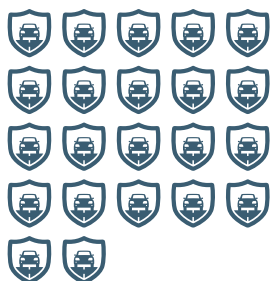
Orlando International Airport was awarded Best Workplace for Commuters by the Center for Urban Transportation Research.

## HIGHLIGHTS

- > Twenty parking spots are designated for high efficiency/electric vehicles, van or carpool vehicles at public and employee lots. Nine electric vehicle charging stations opened in the terminal parking garage in 2013.
- > The GOAA Planning Department developed and disseminated the Transportation Demand Survey and found that 10.5% of GOAA and tenant employees are using alternative forms of transportation.

Number of GOAA badged employees who signed up for Ride-match program with ReThink Your Commute: 2014 vs 2015

2014



2015



Outreach events have assisted in engaging employee participation in the transportation program. Some examples are Earth Day and the transportation event at the Employee Parking Lot.





# Continue Being a Community Leader/ Partner In Sustainability

MWBE/LDB  
Participation

GOAA  
Green Team

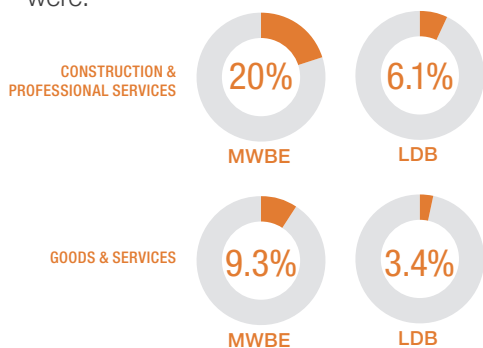
Public  
Sustainability  
education  
events

Industry  
awards



The Florida Department of Environmental Protection recently awarded the GOAA Purchasing Department with a Recycling Recognition Award.

> GOAA promotes the participation of Minority/Women Business Enterprises (MWBE) and Local Developing Businesses (LDB) in contracts. Participation rates in fiscal year 2015 were:



## GOAA Green Team Events



APRIL  
22 Earth Day



NOVEMBER  
15 America Recycles Day



> The GOAA "Passport to Wellness" Program is an incentive-based initiative to promote staff health and fitness. Activities include:

