

# WASTE MANAGEMENT ROUNDTABLE TAMPA, FL

*Chair – Rob Freeman LAWA*

*Co-Chair - Jennifer Acton SFO*



# WASTE MANAGEMENT ROUNDTABLE

## AGENDA

### 1. Introduction (5 mins)

Introduction to working groups airport waste management.

### 2. Introduction to TPA Recycling and Waste Management Efforts (20 mins)

*Justin Smith – Project Director / Airport Architect /Sustainability Manager*

*Paul Ridgeway – Director of Maintenance*

- a. Highlights to TPA's recycling and waste management program
- b. Lessons Learned and challenges to TPA's program and initiatives
- c. Q & A

### 3. Industry Project – Let's Talk Dirty: Cleaning Up Capital Waste Management (20 mins)

*Tiffany Jones - Haley & Aldrich*

- a. Defining the problem and identifying desirable outcomes
- b. Recognizing barriers to progress
- c. Solving for opportunity and a sustainable future
- d. Q & A

### 4. Roundtable discussion & call for topics for quarterly call (15 mins)

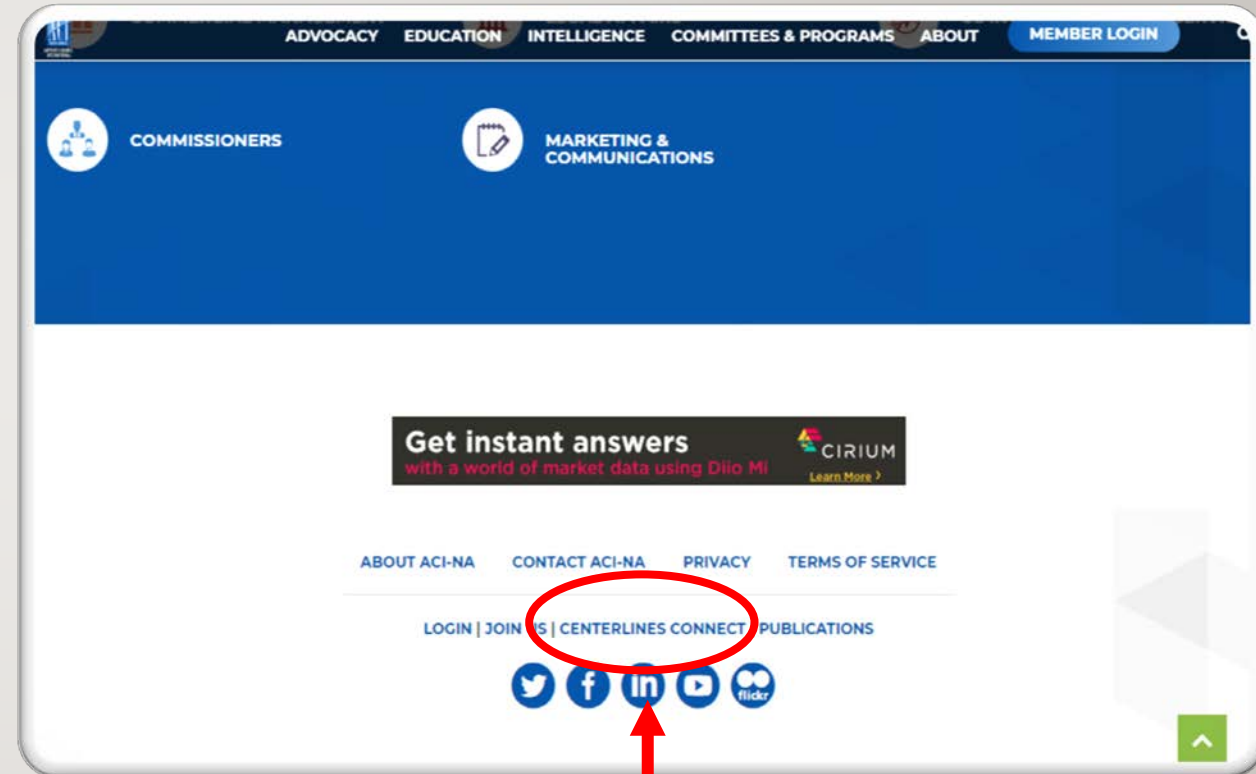
Attendees discuss potential issues for next quarterly Working Group call.



# Navigating Through Waste Management: Centerlines Connect – Cloud share

## STEP 1:

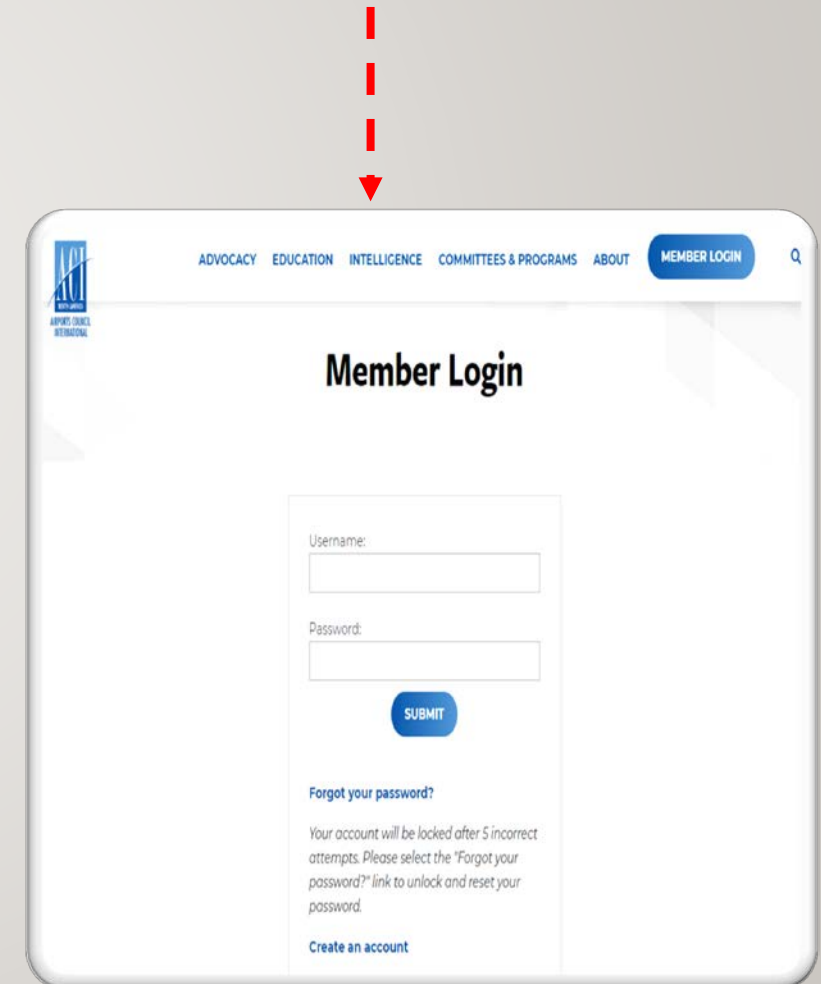
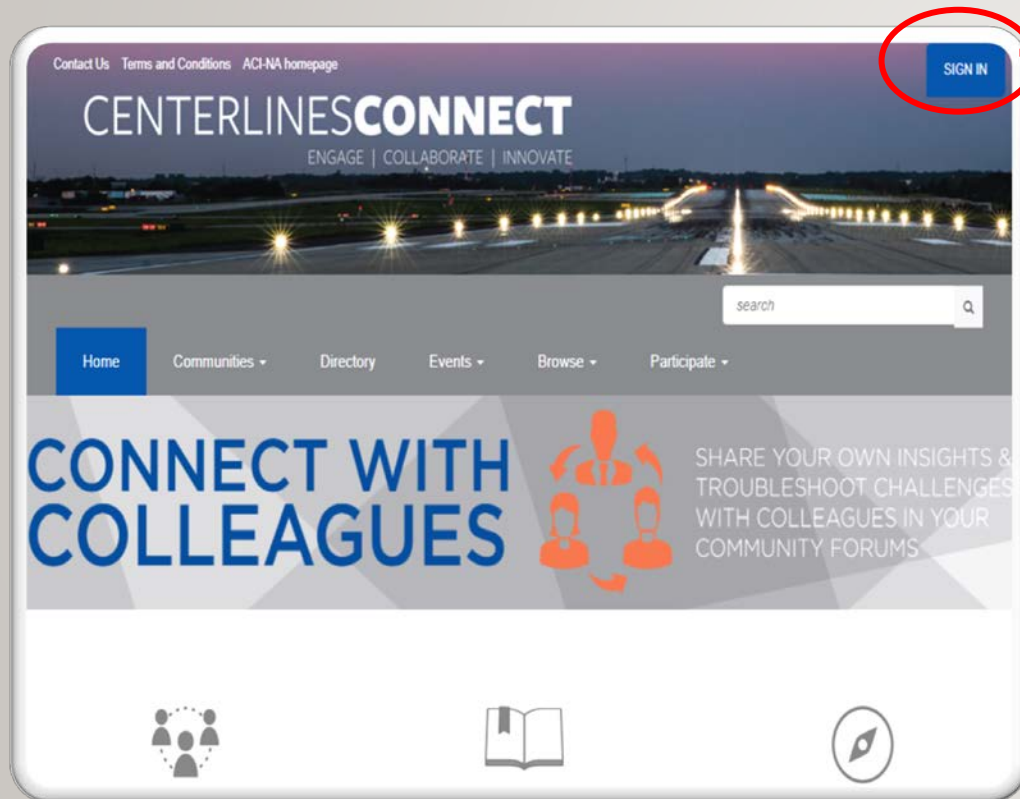
Scroll to the very bottom of the **ACI airportcouncil.org** home page and click “Center Lines Connect”





## STEP 2:

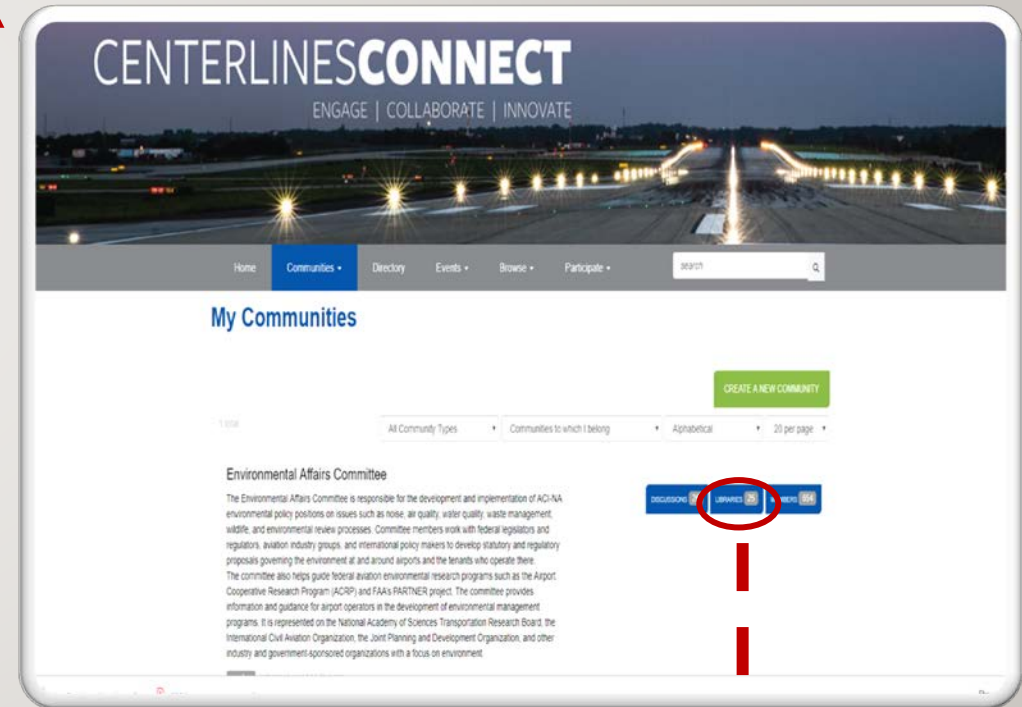
Once you've clicked "Centerlines Connect," Click the sign in button on the top right corner of the page and log In



# STEP:3

Once you've been logged in, Click “Communities” & Scroll down to “My Communities”

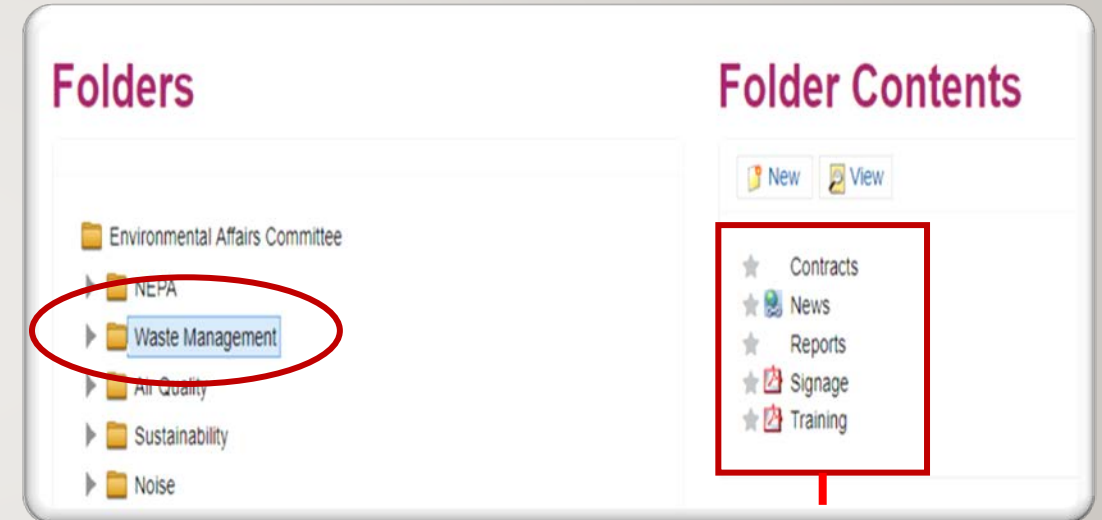
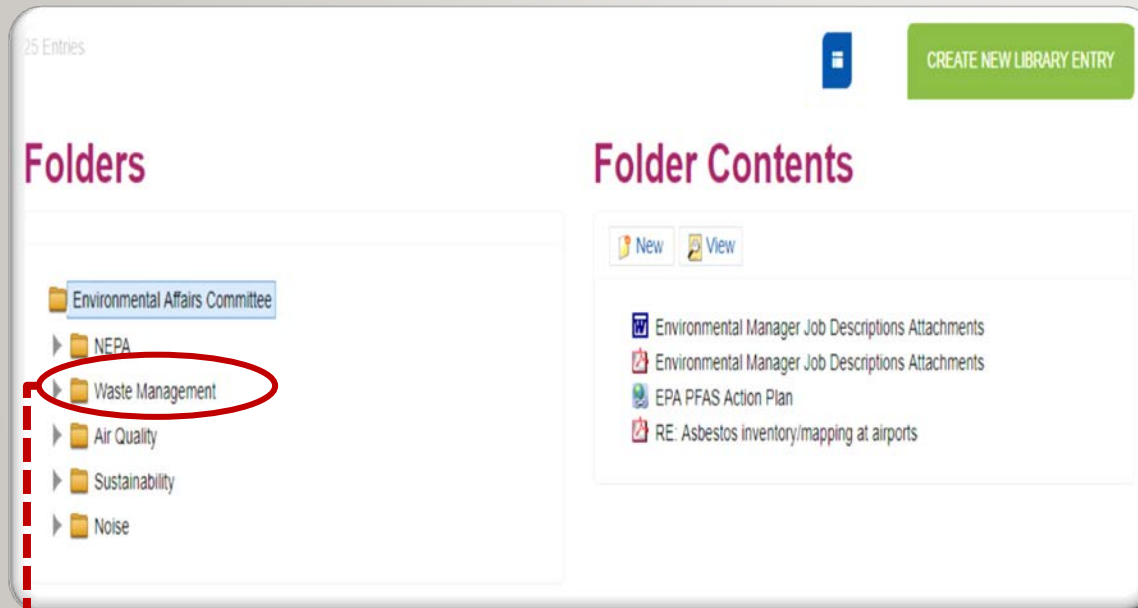
Afterwards then click “Libraries”



## STEP 4:

**Need waste management resource information / signage / contract language /etc?**

**Select the Waste Management Folder & It will navigate you towards the desired folder contents**



## STEP 5:

By clicking through the folder contents, you can learn more information and follow suggested links, and or PDF's.

The screenshot displays the 'Environmental Affairs Committee' interface. At the top, there's a navigation bar with 'Community Home', 'Discussion 27', 'Library 25', and 'Members 654'. A 'BACK TO LIBRARY' button is visible. The main section is titled 'Reports' and shows a report by Jennifer Acton titled 'ACRP Study: Supporting Materials, Case Examples, and Toolkits for ACRP Synthesis 92: Airport Waste Management and Recycling Practices'. The URL <http://www.trb.org/ACRP/ACRPSynthesis92.aspx> is highlighted with a red oval. A red dashed line with arrows points from the left towards the report. To the right of the report, an 'ACTIONS' menu lists 'Statistics', '0 Favorited', '6 Views', '0 Files', '0 Shares', and '0 Downloads'. Below the report, there's a 'Tags and Keywords' section, a 'Comments' section with the text 'Currently no comments.', and a 'Related Entries and Links' section. A red callout box with the text 'Post your comments underneath!' points to the comments section.


Environmental Affairs Committee [SETTINGS](#)

Community Home Discussion 27 Library 25 Members 654

[← BACK TO LIBRARY](#)

### Reports

Following [★](#) [0](#) [RECOMMEND](#)

 ACRP Study: Supporting Materials, Case Examples, and Toolkits for ACRP Synthesis 92: Airport Waste Management and Recycling Practices 04-02-2019 12:03

[Jennifer Acton](#) <http://www.trb.org/ACRP/ACRPSynthesis92.aspx>

**ACTIONS ▾**

- Statistics
- 0 Favorited
- 6 Views
- 0 Files
- 0 Shares
- 0 Downloads

### Tags and Keywords

### Comments

Currently no comments.

### Related Entries and Links

[ADD](#)

Related Entries and Links

[ADD](#)



# STEP 6:

Press the download button & you can view and keep this resource for yourself!

## Environmental Affairs Committee

Community Home Discussion 27 Library 25 Members 654

BACK TO LIBRARY

### Signage



#WMWG

Jennifer Acton

04-02-2019 12:14

ACTIONS

Statistics

0 Favorited

22 Views

1 Files

0 Shares

8 Downloads

Attachment(s)

 [Signage Toolkit.pdf](#) 2.31MB 1 version

DOWNLOAD

Reprinted from

## RESOURCE RECYCLING

# BIN THE KNOW

Preliminary research from Keep America shows how receptacle color, shape and labeling influence recycling participation.

BY BRENDA PULLEY, KELLEY DENNINGS AND KAITLIN PHELPS



Since the 1990s, curbside and drop-off recycling has grown substantially – nearly 90 percent of households now have access, according to recent surveys from Moore Recycling Associates, the American Forest and Paper Association and others. Unfortunately, public space recycling has not kept pace. Recycling options are woefully insufficient in parks, malls, streetscapes and other civic and communal locations. Much of this is the result of limited infrastructure, mostly collection bins, for on-the-go recycling. A study from Keep America Beautiful in 2009 concluded only 12 percent of public spaces have recycling bins.

While recycling is one of the easiest environmental behaviors to adopt, insufficient access to recycling bins is still the primary barrier when it comes to public space recycling. To improve convenience – and ensure “correct” recycling – providing the correct bins is fundamental.

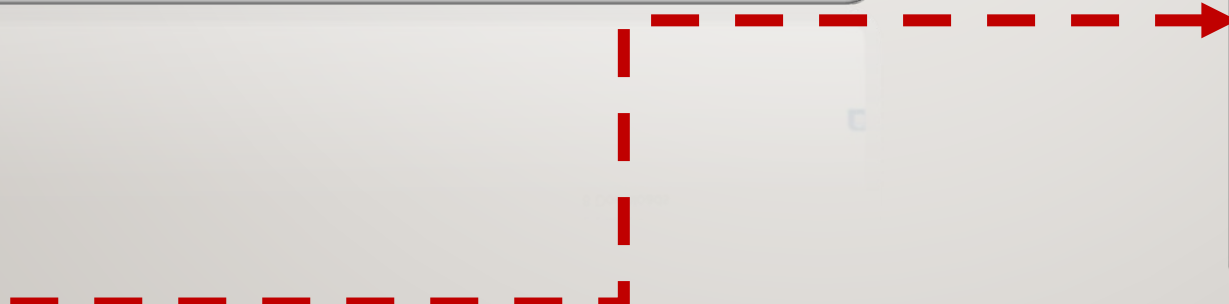
Not all bins, however, are created equal. Some bins are easily recognized as recycling receptacles, and others are presumed to be for trash only. And when it comes to labeling bins, the average person may be woefully confused about the terminology employed by experts. To better understand which features make a recycling bin recognizable to the public, Geotree Washington University and

“compost” and “trash” (see Figure 1).

In general, the results show that while there is more variety in bin shapes identified as recycling, there is also a greater chance of confusion. Specifically, the survey found:

- **Round bins are most often identified as “trash.”** More than half (56 percent) of survey respondents identified a round bin as one designated for garbage. The rectangular shaped bin was most frequently identified as a recycling bin (56 percent). However, roughly one-third of respondents also identified the wireframe (37 percent) or square (35 percent) bin shapes as recycling containers.
- **Bins with corners are most identified for “recycling.”** What differentiates a trash bin from a bin for recycling? More than half of respondents identified a bin with corners (either square or rectangular) as a recycling bin.
- **Bins for “compost” are least identifiable.** No shape was recognized as a compost bin by more than one-third of re-

Survey methodology





# Questions on Navigating through Centerlines Connect- Waste Management –Cloud Share

Contact Jennifer Acton, [jennifer.acton@flysfo.com](mailto:jennifer.acton@flysfo.com) or 650-821-8380



# Recycling & Waste Management Efforts

Waste Management Working Group Meeting

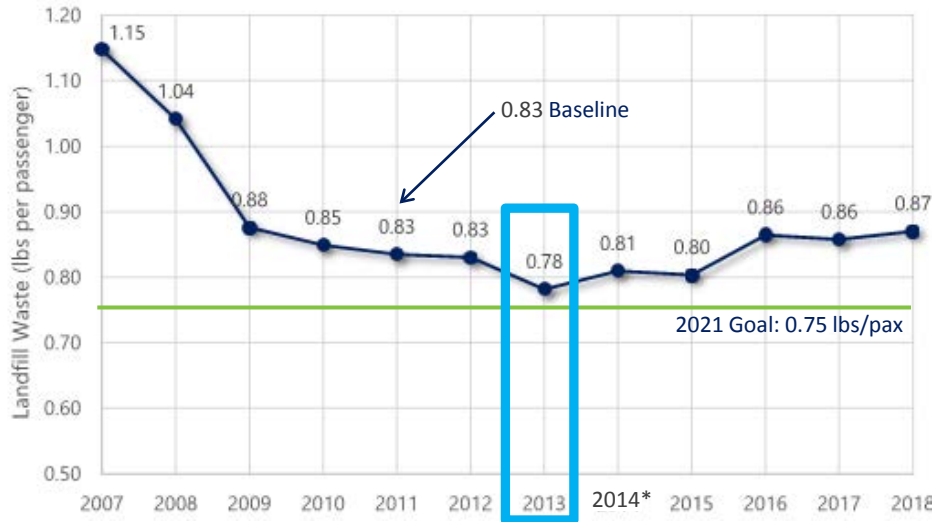
ACI-NA 2019 Annual Conference



Hillsborough County Aviation Authority  
Tampa International, Peter O. Knight,  
Plant City and Tampa Executive Airports

# TPA Solid Waste & Recycling Metrics

Annual Solid Waste Disposal (lbs/pax), 2007-2018



\*Master Plan – Phase 1

\*Concessions Redevelopment

Annual Recycling Rates (%), 2007-2018



\*Master Plan – Phase 1

\*Concessions Redevelopment



# Lets Talk Dirty: Cleaning Up Capital Waste Management

Tiffany Jones

**HALEY**  
**ALDRICH**

# Contents: What are we going to talk about

- 1 Introductions
- 2 Defining the problem and why it is important
- 3 Identify the desirable and non-desirable outcomes
- 4 Recognize barriers to progress
- 5 Solving for opportunity and a sustainable future

# Introductions: The company



- Based out of New England
- 27 offices, over 700 employees
- Over 60 years' experience
- Serve the built environment life cycle:
  - Environment
  - Sustainability and Resilience
  - Government infrastructure



# Introductions: Tiffany N. Jones



- Over 15 years experience with large scale project and capital programs
- 13 years of aviation and sustainability experience
- LEED AP BD+C
- Certified true waste advisor
- Active advocate of sustainability serving on various boards of sustainable interest

# Introductions: Home capital waste management



- \$ = pop quiz with prize
- If you see something you would like or learned and want to share, take a picture and tweet it with #Airports19.
- The best tweet will be chosen for a prize.

# Defining the problem and understanding why it is important

- Defining the problem:

“Current waste management strategies do not facilitate a significant reduction of waste to landfill and exports from airport operations”

- Boundaries

- Operational waste only

- Will be produced on an ongoing basis

- Outside the Boundaries

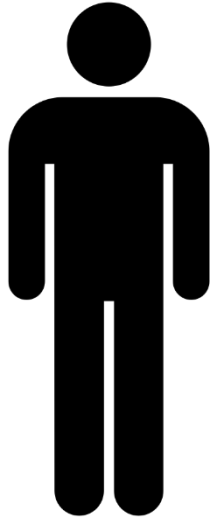
- Construction waste

- Hazardous waste

- International waste designated for incineration



# Defining the problem and understanding why it is important



4.6 lbs. of waste  
per person per day

X



1.73 million domestic  
passengers per day

=

up to 7.95 million lbs. of waste per day traveling through domestic airports

#Airports19

# Defining the problem and understanding why it is important

- **Concerns with traditional means of waste management**
  - **Exporting**
    - International countries are restricting imports of recyclable and non- recyclable waste
      - January 2018 China restrictions
      - 5% to now 2.5 % contamination acceptance rate
    - India looking into restricting waste imports
  - **Landfills**
    - Take up real estate for agriculture
    - Toxins – irreversible soil contamination
    - Greenhouse gasses

# Identifying desirable and non desirable outcomes

- **Desirable outcomes**

1. Reduction in harvesting of raw materials
2. Contribute less to landfills
3. Integrate with the local community for circular economy

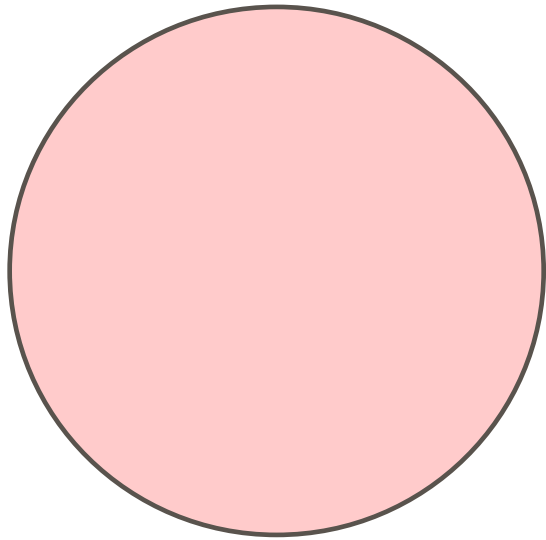
- **Non Desirable outcomes**

1. Increased landfill use
2. Illegal dumping
3. Exporting to other countries
4. Waste to energy (non-closed system)

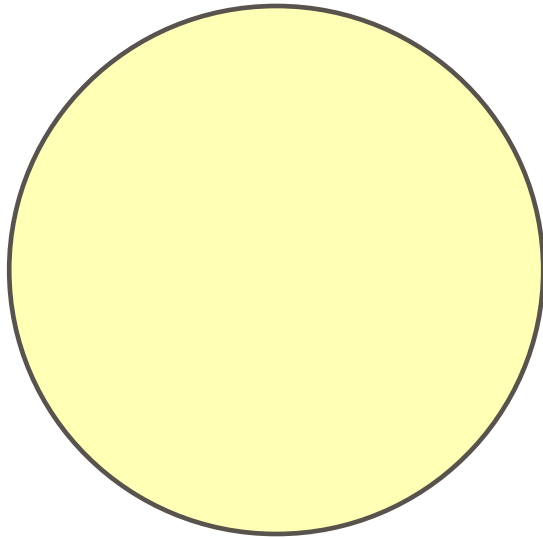


# Recognize barriers to progress

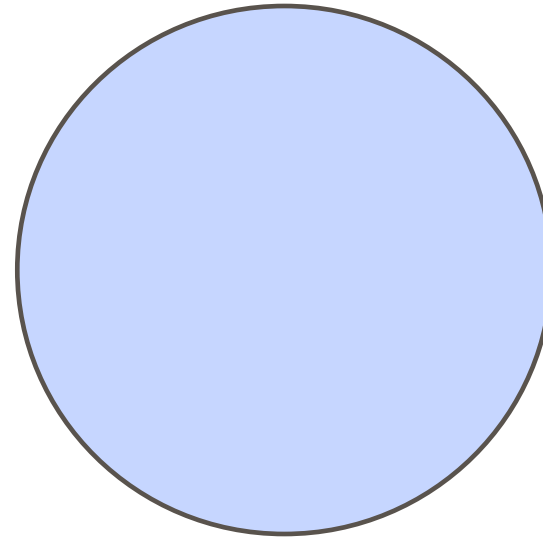
- Identify key stakeholder, their integration to airports operations, understanding their limitations and the inputs and outputs of their operations.



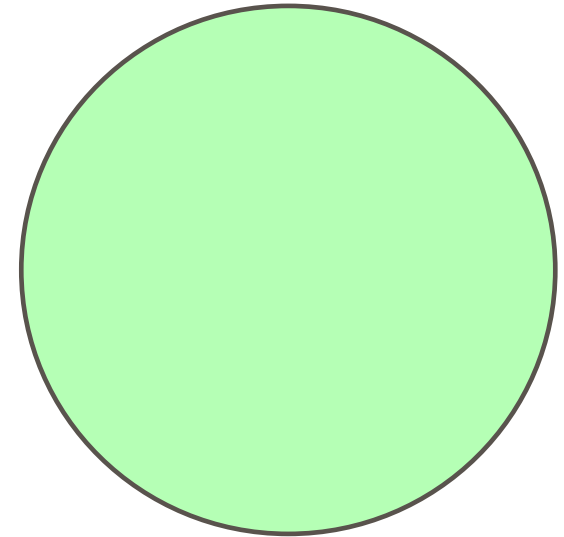
**Key stakeholders**



**Airport Operations**



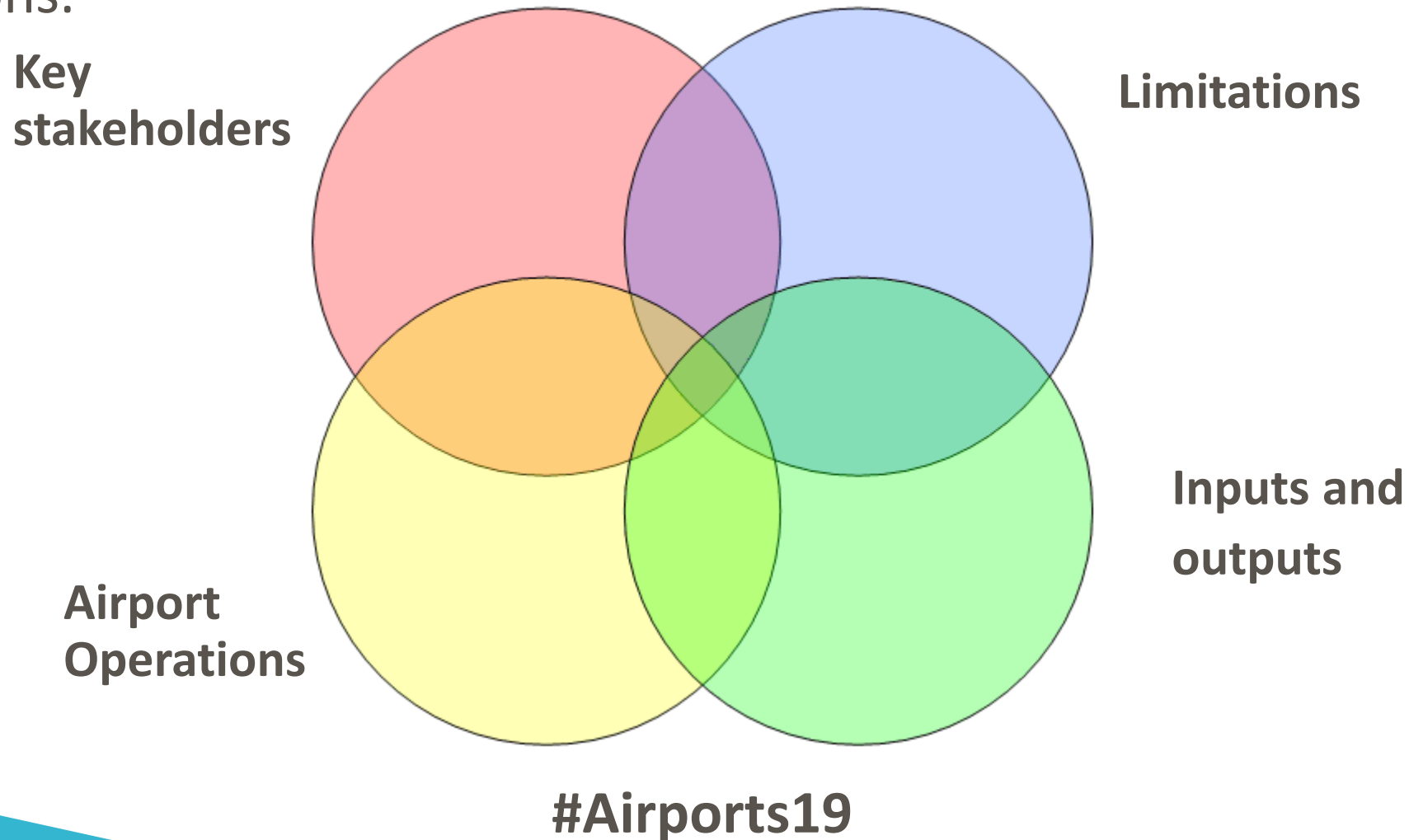
**Limitations**



**Inputs and outputs**

# Recognize barriers to progress

- Identify key stakeholder, their integration to airports operations, understanding their limitations and the inputs and outputs of their operations.

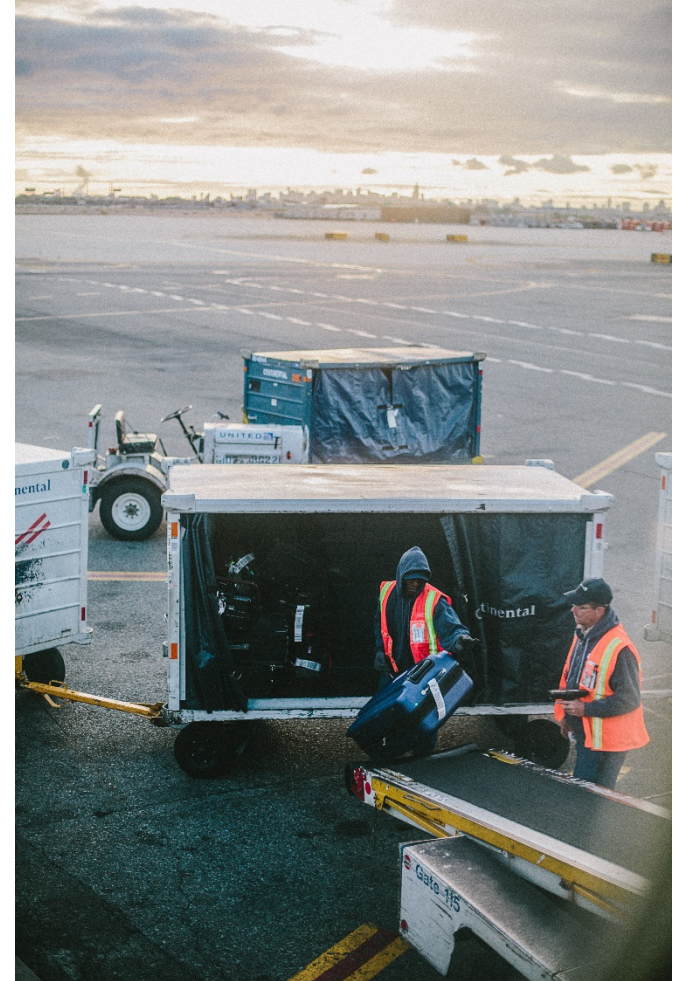


# Recognize barriers to progress

- Identify **key stakeholder**, their integration to airports operations, understanding their limitations and the inputs and outputs of their operations.

## Key Stakeholders

1. Airlines
2. Tenants
3. Passengers
4. Government agencies
5. Service providers
6. Airport operators



# Recognize barriers to progress

- Identify key stakeholder, their integration to **airports operations**, understanding their limitations and the inputs and outputs of their operations.

## Airport Operations

1. Cargo
2. Maintenance
3. Aircraft operations
4. Passenger logistics
5. Service providers
6. Safety (ARFF)



#Airports19

# Recognize barriers to progress



- Identify key stakeholder, their integration to airports operations, understanding their **limitations** and the inputs and outputs of their operations.

## Limitations

1. Operations only at a certain time and location
2. Restricted areas
3. Operations take place in an area that is owned by one party and operated by another.
4. Competing interest
5. Qualified labor
6. Conflicting B2B policies and operations
7. No policies addressing key concerns or issues
8. Geography



# Recognize barriers to progress

- Identify key stakeholder, their integration to airports operations, understanding their limitations and the **inputs and outputs** of their operations.

## Inputs and outputs

1. Organics
2. Plastics
3. Metals
4. Wood



# Solve for opportunity and a sustainable future

- Define your goal:

“Reduce waste to landfill and exports produced from airport operations”

- Actions to obtain the desirable outcomes:
  - Increase diversion of waste to landfill
  - Zero waste purchasing
    - Reduction in harvesting of raw materials
  - Contribution to a circular economy
    - Identify partnerships that could benefit from the outputs of your operations
    - Identify materials that could stay in the cycle of operations
    - Eliminate or severely reduce single use articles

# Solve for opportunity and a sustainable future

- Take a phased execution
  - Redesign the approach
    - Address the current concerns and prepare for the new operations
    - Ask “is this item/ process necessary?”
    - Investigate supply chain management alternatives
  - Policies implementation strategies and tools for success
    - Recognize gaps in current infrastructure and the execution of the policies intent.
    - Make sure the right people are at the table when discussing variances from the norms as it relates to operations.
    - Leave room for incentives

# Solve for opportunity and a sustainable future



- Offer tools for convergence (identify milestones)
  - SMART goal setting
    1. Specific
    2. Measurable
    3. Attainable
    4. Relevant
    5. Time-based

# Solve for opportunity and a sustainable future



- Identify areas of highest influence
  - Airports operations
    - Maintenance
    - Aircraft enplanement area
    - Passenger logistics
    - Policies for tenants
    - Service providers
  - Meet with key stakeholders
    - Airlines
    - Governing agencies
    - Passengers
    - ?



# Solve for opportunity and a sustainable future

- Identify areas of highest influence
  - Meet with key stakeholders
    - Airlines
    - Governing agencies
    - Passengers
  - Outside local 3<sup>rd</sup> parties
    - Coca – Cola Company
      - 2018 Coca-Cola set 2030 goal to collect and recycle the equivalent of every bottle or can it sells
    - Goodr program
      - Delivery of food surplus to local communities



# Conclusion: What we learned

- 1 Defining the problem and why it is important
- 2 Identify the desirable outcomes
- 3 Recognize barriers to progress
- 4 Solving for opportunity and a sustainable future

# Thank you

## Lets Talk Dirty: Cleaning Up Capital Waste Management

Tiffany Jones

Mobile: 404-545-2505

**HALEY**  
**ALDRICH**