APPENDIX 8

REFERENCE MATERIALS AND LITERATURE REVIEW

INTRODUCTION

This list of reference materials was compiled to analyze useful resources for sustainability project teams and airports to reference for further information regarding sustainability. This list was derived from previous literature review efforts as well as sustainability tool inventory collection. While this list provides a foundation of information for airports to reference, it is important to note that new publications and guidance relating to sustainability are continuously in development.

TRANSPORTATION RESEARCH BOARD RESOURCES

1. **ACRP Report 141: Renewable Energy as an Airport Revenue Source**

   Prepared by: Transportation Research Board, 2015
   http://onlinepubs.trb.org/Onlinepubs/acrp/acrp_rpt_141.pdf

   Report 141 contains information on using renewable energy sources at airports through case studies and feasibility assessments of multiple renewable energy options. Key components of *Report 141* include:

   - Evaluation of the airport factors that influence what forms of energy are feasible at an airport
   - Guidance on conducting financial assessments of chosen renewable energy sources
   - Guidance on renewable energy implementation
   - A Renewable Energy Funding Matrix
   - Sample Request for Proposals are referenced within and are available at: http://onlinepubs.trb.org/Onlinepubs/acrp/acrp_rpt_141_AppendixF.pdf

2. **ACRP Synthesis 66: Lessons learned from Airport Sustainability Plans**

   Prepared by: Transportation Research Board, 2015
   http://www.trb.org/Main/Blurbs/172887.aspx

   Synthesis 66 provides a summary of the lessons learned from a sustainability implementation survey sent to airports around the nation. This report organized information from 31 medium and small general aviation and commercial service airports from 20 states. Based on the survey results, *Synthesis 66* provides the following:

   - Advice on the development of sustainability plans
   - Typical drivers, aids, and barriers to implementation
   - Sustainability implementation lessons learned
   - Airport sustainability case studies

ACRP Report 110: Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance

Prepared by: Transportation Research Board, 2014

http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_110.pdf

Report 110 provides guidance on the proper function and use of two tools developed to monitor the impact of sustainability on airports' operations and maintenance; these tools are:

- **Evaluation Process (EP)**: Guides users to scope the analysis and collect relevant data as it relates to sustainability practices for use in the Cost Benefit Tool

- **Cost Benefit Tool (CBT)**: Helps users categorize the data collected in the EP to support the assessment of potential impacts resulting from the implementation of sustainability initiatives on maintenance budgets and resources http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_110.iso[19]

  Video tutorial on how to use the CBT: http://vimeo.com/116156429

3. **ACRP Report 119: Prototype Airport Sustainability Rating System – Characteristics, Viability, and Implementation Options**

   Prepared by: Transportation Research Board, 2014
   http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_119.pdf

   Report 119 contains an exploration and explanation of the Prototype Rating System (Prototype) and how it can be used by airports. The primary components of *Report 119* include:

   - The methods used to create the Prototype
   - A user's guide for the Prototype
   - A list of sustainability best practices
   - Sustainability activity definitions and performance metrics

4. **ACRP Report 80: Guidebook for Incorporating Sustainability into Traditional Airport Projects**

   Prepared by: Transportation Research Board, 2012
   http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_080.pdf

   Report 80 provides guidance on incorporating sustainability into airport projects using the Airport Sustainability Assessment Tool (ASAT) developed as part of this report. To accomplish this, *Report 80* provides the ASAT which allows users to evaluate which sustainability practices would be most applicable based on the conditions at the airport and includes a comprehensive list of suggestions for incorporating sustainable initiatives with traditional airport projects. The ASAT can be found at: http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_080.xls

5. **ACRP Report 19A: Resource Guide to Airport Performance Indicators**

   Prepared by: Transportation Research Board, 2011

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[19] To enhance ACRP Report 110, a downloadable file is available that editable Excel files as well as an informational video. This file can be found at: CD-149: Evaluation Process and Cost–Benefit Tool and instructions for accessing it can be found at: http://onlinepubs.trb.org/Onlinepubs/create-and-burn-iso.pdf

http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_019A.pdf

Report 19A provides users with a list of Airport Performance Indicators (APIs) that can be used to accurately measure an airport's performance across multiple functional areas including general aviation, human resources, and operations. APIs are provided in the following categories:

- **Core APIs**: Important for overall operation or otherwise important to the airport executive level and/or the airport governing board

- **Key APIs**: Important for the operations of key airport departments of functions

- **Other APIs**: Not considered as useful for airport overall operation, to the executive level, or to key airport departmental functions

6. **ACRP Synthesis 77: Airport Sustainability Practices**

   Prepared by: Transportation Research Board, 2016
   http://www.trb.org/ACRP/Blurbs/174993.aspx

   This synthesis was developed to analyze 10 sustainability initiatives that have not been included in the Sustainable Aviation Guidance Alliance (SAGA). Through TRB research, it has been identified on multiple fronts that the SAGA database is in need of re-evaluation and consistent updating. *Synthesis 77* strives to provide 10 primary sustainability initiatives that were generated from researching:

   - Seven airport operators

   - Two airlines

   - One concessionaire

   While this synthesis is not an all-inclusive list of sustainability initiatives, it focuses on the continuing evolution of sustainability and how airports can begin to adapt.

7. **ACRP Synthesis 69: Airport Sustainability Practices – Drivers and Outcomes for Small Commercial and General Aviation Airports**

   Provided by: Transportation Research Board, 2016
   http://www.trb.org/main/blurbs/174223.aspx

   For this synthesis, a total of 303 airports were surveyed and studied to determine sustainability initiatives that have been pursued and are currently being pursued by small airports. Sustainability initiatives were categorized into the EONS categories of:

   - Economic Viability

   - Operational Efficiency

   - Natural Resource Conservation

   - Social Responsibility

   Out of all the airports surveyed, the majority were currently pursuing sustainability initiatives in the realm of energy conservation and renewable energy. Overall, this synthesis presents the

collection of gathered sustainability data from airports who participated in the surveying efforts.

8. **ACRP Synthesis 42: Sustainable Airport Construction Practices**

   Prepared by: Transportation Research Board, 2011
   http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_042.pdf

   Synthesis 42 organizes 480 sustainable construction practices into three categories: Pre-Construction, During Construction, and Commissioning/Post Construction. Additionally, *Synthesis 42* contains a thorough list of sustainable construction case studies, and includes the following informational matrices that sort sustainable construction practices in a variety of ways:

   o Categorized by practice category (Policies and regulations, construction methods, logistics, etc.)

   o Categorized by construction implementation stage categories (Pre, during, and post construction)

9. **ACRP Report 20: Strategic Planning in the Airport Industry**

   Prepared by: Transportation Research Board, 2009
   http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_020.pdf

   Report 20 contains information and guidance on strategic planning and how to properly implement the strategic planning process. The Report provides airports with the tools necessary to appropriately incorporate their sustainability goals into their overall strategic plan. Within *Report 20*, the following tools and information are provided to assist airports in the strategic planning process:

   o A step-by-step framework that allows an airport to efficiently navigate the strategic planning process http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_020workbook.pdf

   o Information and guidance to aid in the understanding or implementation of strategic planning at airports

   o Case studies outlining the strategic planning efforts of airports and airport systems around the country

10. **ACRP Synthesis 10: Airport Sustainability Practices**

    Prepared by: Transportation Research Board, 2008
    http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_010.pdf

    Synthesis 10 was developed to inform interested users on a range of airport sustainability initiatives collected from a comprehensive literature review and online survey. *Synthesis 10* provides the following tools to assist airports when developing and implementing sustainability plans and initiatives:

    o **Management Performance Scale**: Helps assess the extent to which sustainability management practices are integrated into the business process at airports (Appendix B of ACRP *Synthesis 10*)

- **Airport Sustainability Practices Matrix**: Catalogues sustainable airport practices by commercial hub size, location (domestic or international), and type of sustainable practices (land use, waste, noise, etc.)(Appendix D of ACRP Synthesis Report 10)

11. **NCHRP Report 708: A Guidebook for Sustainability Performance Measurement for Transportation Agencies**

Prepared by: Transportation Research Board, 2011
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_708.pdf

NCHRP Report 708 was developed to provide transportation agencies with tools to apply concepts of sustainability in core activities through performance measurement. To assist in this, *Report 708* includes the following:

- Sustainability definitions and issues background
- Theories on the application of sustainability
- A sustainability performance measurement framework
- Methods to evaluate sustainability initiatives and determine effectiveness

12. **ACRP Report 154: Water Efficiency Management Strategies for Airports**

Prepared by: Transportation Research Board, 2016
http://www.trb.org/ACRP/Blurbs/174444.aspx

ACRP Report 154 was developed to walk airports through developing and implementing a water efficiency program. Through numerous real-world examples and tools being utilized, this report offers an abundance of knowledge for airport sustainability teams to inquire about decreasing water usage and increasing water efficiency. Chapter 5 "How to Design a Program" has noticeable parallels to the Florida Airport Sustainability Guidebook that can help airport sustainability teams coordinate integration of the two program types. Further, the report is complemented by a toolbox containing 34 tools "to design and implement airport water efficiency programs".

13. **ACRP Report 159: Pavement Maintenance Guidelines for General Aviation Airport Management**

Prepared by: Transportation Research Board, 2016
http://www.trb.org/main/blurbs/175058.aspx

ACRP Report 159 was created to help general aviation airports extend the life time of airfield pavement through more efficient maintenance methods. Although specifically intended for general aviation audiences, this report can be utilized by maintenance departments from airports of all sizes and uses. This report identifies itself as a "starting point" and recommends supplementation with the following documents:

○ Airport Pavement Recommendation Tool: http://acrp-pavement-tool.tti.tamu.edu

○ Field Guide: https://acrp-pavement-tool.tti.tamu.edu/docs/ACRP-09-11-Field-Guide.pdf

14. **TRB Webinar: Renewable Energy Use and Sustainability Practices at Airports[20]**

http://www.trb.org/main/blurbs/174865.aspx

This webinar highlights the benefits of pursuing renewable energy practices at airports. The major benefits discussed were categorized as financial and public. This information can be beneficial to airports determining if renewable energy initiatives should be incorporated into their sustainability plans. Further, this webinar discussed initiatives that could aid in enhancing the SAGA database.

15. **TRB Webinar: Resources for Evaluating Airport Sustainability Practices[2]**

http://www.trb.org/main/blurbs/172533.aspx

This webinar provides an overview of the SAGA database and how airports can utilize the database to its maximum potential. This webinar stresses the multi-functionality of the SAGA website and how airports could take advantage of it with their sustainability plans. Further, this webinar discusses ACRP Report 119: Prototype Airport Sustainability Rating System – Characteristics, Viability, and Implementation Options.

16. **TRB Webinar: Evaluating and Improving Airport Environmental Sustainability Practices[2]**

http://www.trb.org/main/blurbs/170140.aspx

This webinar highlights two major sustainability-related ACRP Reports:

○ ACRP Report 110: Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance
○ ACRP Synthesis 42: Integrating Environmental Sustainability into Airport Contracts
The two primary takeaways from this webinar include the ability "to better evaluate the day-to-day impacts of sustainability practices and to summarize how to increase the use of contracts as an efficient mechanism for delivering environmental sustainability improvements."

17. **TRB Webinar: Airport Sustainability Practices and Strategies[2]**

http://www.trb.org/main/blurbs/169268.aspx

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[20] Note: All of the webinars have occurred in the past but a recording of each individual webinar can be viewed at the link provided.

This webinar discusses many strategies for airports to pursue sustainability, particularly in green initiatives such as recycling strategies and green technology implementation. This webinar can be beneficial to airport sustainability teams who are in need of sustainable strategy concepts as well as potential tools and technology for implementation. Two ACRP documents are discussed in this webinar:

- ACRP Report 80: Guidebook for Incorporating Sustainability into Traditional Airport Projects
- ACRP Research Project 02-15: Recycling Strategies for the Airport Industry

Within these ACRP documents, there are numerous strategies for airports to analyze and implement where they see fit best.

FEDERAL AVIATION ADMINISTRATION RESOURCES

1. **Report to Congress: National Plan of Integrated Airport Systems**

   Prepared by: The FAA, September 30, 2016
   https://www.faa.gov/airports/planning_capacity/npias/reports/media/NPIAS-Report-2017-2021-Narrative.pdf

   The *National Plan of Integrated Airport Systems (NPIAS)* provides an overview and evaluation of the public-use airports that are important to national air transportation and eligible for AIP funding. Within this document, the following are included:

   - An overview of the composition of the national airport system
   - Overall objectives of the NPIAS and an evaluation of the system's performance
   - Aviation forecasts and how this information will affect airports
   - The overall development requirements and estimates for future costs

2. **General Aviation ASSET Documents:**

   General Aviation Airports: A National Asset (ASSET 1)

   Prepared by: The FAA, May, 2012

   ASSET 2: *In-Depth Review of the 497 Unclassified Airports* (ASSET 2)

   Prepared by: The FAA, March 2014

   Both available at *http://www.faa.gov/airports/planning_capacity/ga_study/*

   ASSET 1 was completed by the FAA to explore and better communicate the role that general aviation airports included in the NPIAS play in the National Air Transportation System. *ASSET 1* provides readers with an overview of the types of services general aviation (GA) airports provide within the national airport system and categorizes the GA airports that facilitate this activity. *ASSET 1* outlines the following information:

   - The societal importance of GA airports

- Four new ASSET categories to organize GA airports based on various characteristics (such as based aircraft, IFR interstate flights, cargo landed weight, and location): National, Regional, Local, and Basic
- The identification of 497 GA airports that did not fit within the four categories (Unclassified) and the plan to address these airports within another study

ASSET 2 documents the review of the 497 facilities that could not be categorized in 2012 as part of *Asset 1*. Key information from this report includes:

- 212 of the previously unclassified airports were classified within one of the four ASSET categories
- 281 of the unclassified airports will remain unclassified within the NPIAS (4 facilities closed before *ASSET 2* was completed and have been removed from the NPIAS)
- A matrix showing the breakdown of the categories of the NPIAS airports organized by state

3. **Airport Improvement Program Handbook**

Prepared by: The FAA, September 30, 2014
http://www.faa.gov/airports/aip/aip_handbook/media/AIP-Handbook-Order-5100-38D.pdf

The *Airport Improvement Program Handbook (AIP Handbook)* provides guidance on the types, eligibility, and steps necessary to receive funding through the AIP. The *AIP Handbook* outlines the following:

- Types of sponsors and entities eligible for grant funding
- Type of projects eligible for funding
- Types of AIP funding available
- Guidance on the grant process

4. **FAA AC 150/5070-6B: Airport Master Plans, Change 2**

Prepared and updated by: The FAA, January 27, 2015
http://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5070-6B-Change-2-Consolidated.pdf

Advisory Circular 150/5070-6B outlines the features and content necessary for an airport to complete the master planning process. The following are included within this document:

- Guidance on the necessary steps and elements of an airport master plan
- Guidance on the development of individual components of an airport master plan
- A listing of potential stakeholders to include in the master planning process
- Guidance on the specific requirements of an airport layout plan set

5. **Sustainable Master Plan Pilot Program (including Lessons Learned)**

   Prepared by: The FAA, December 17, 2012

   Interim Guidance for FAA's Sustainable Master Plan Pilot Program (Interim Guidance): http://www.faa.gov/airports/environmental/sustainability/

   Lessons Learned from the Sustainable Master Plan Pilot Program (Lessons Learned): http://www.faa.gov/airports/environmental/sustainability/

   The *Interim Guidance* and *Lessons Learned* contain a summary of the FAA's Sustainable Master Plan Pilot Program and information collected from the participants. Within the report, the following are included:

   o An introduction of the Sustainable Master Plan Pilot Program

   o Lessons learned from the participants of the Sustainable Master Plan Pilot Program

   o A list of notable sustainability goals, targets, and initiatives found from the Sustainable Master Plan Pilot Program

   o Links to documents completed during the Sustainable Master Plan Pilot Program

6. **Recycling, Reuse, and Waste Reduction at Airports: A Synthesis Document (Recycling Synthesis)**

   Prepared by: The FAA, April 24, 2013

   https://www.faa.gov/airports/environmental/airport_recycling/

   Recycling Synthesis provides guidance on the implementation of recycling and waste management programs at airports. The document contains three major sections for consideration:

   o The establishment of municipal solid waste recycling programs

   o The establishment of a construction and demolition waste management programs

   o A listing of airports that have implemented recycling programs and their lessons learned

FLORIDA DEPARTMENT OF TRANSPORTATION RESOURCES

7. **Florida Transportation Plan**

   Prepared by: Florida Department of Transportation, 2015
   http://www.fdot.gov/planning/ftp/

   The *Florida Transportation Plan (FTP)* defines the overall transportation goals of Florida and was developed to make it more economically competitive, livable, and environmentally sustainable for future generations. The FTP is updated every five years to accommodate and respond to new trends and challenges to meet future mobility needs. The current version of the report provides the following vision for the future of Florida transportation:

- Safety and security for residents, visitors, and businesses

- Agile, Resilient, and Quality transportation infrastructure

- Efficient and reliable mobility for people and freight

- More transportation choices for people and freight

- Transportation solutions that support Florida's economic competitiveness

- Transportation solutions that support quality places to live, learn, work, and play

- Transportation solutions that support Florida's environment and conserve energy

8. **Florida's Strategic Intermodal System Policy Plan**

Prepared by: Florida Department of Transportation, 2015
http://www.fdot.gov/planning/ftp/SIS-PolicyPlan.pdf

The Strategic Intermodal System (SIS) is comprised of Florida's largest and most strategic air, space, water, rail, and highway transportation facilities. There are currently 20 airports that are included in the SIS. Of these 20 airports, seven are Commercial Service SIS Airports, and two are SIS General Aviation Reliever Airports. The remaining 11 are Commercial Service Emerging SIS Airports. Airport eligibility into the SIS and categorization must meet the identified criteria as updated. More information on the SIS criteria can be found on the SIS website: http://www.fdot.gov/planning/sis/. SIS funds can be used for airport facilities in need of additional capacity. The SIS Strategic Plan creates the policies used to designate SIS facilities, where funding should be allocated, and how to establish priorities among these investments. The SIS has identified three objectives within the strategic plan:

1. **Interregional Connectivity** - Ensure efficiency and reliability of multimodal transportation connectivity between Florida's economic regions and between Florida and other states and nations

2. **Intermodal Connectivity** - Expand transportation choices and integrate modes for interregional trips

3. **Economic Development** - Provide transportation systems to support Florida as a global hub for trade, tourism, talent, innovation, business, and investment

In addition to these overarching objectives, a set of emphasis areas were also developed to support the objectives as well as support the overall update and implementation of the SIS Plan. In total, there are seven emphasis areas that the SIS Update identified, two were continued from the previous SIS plan and five are new to the current SIS Update. The two existing emphasis areas as provided by the SIS are:

- Reaffirm statutory intent for interregional, interstate, and international travel

- Continue emphasis on largest and most strategic facilities

The five new emphasis areas are:

- Statewide/regional economic development opportunities

- Freight mobility and trade development

- Innovation and technology
- Modal and system connectivity
- Coordinated planning for SIS, regional, and local facilities

9. **Florida Aviation System Plan 2025**[21]

Prepared by: Florida Department of Transportation, 2012
http://www.fdot.gov/aviation/FASP_details.shtm

The Florida Aviation System Plan (FASP) was developed through the coordination of the FDOT, the FAA, and Florida's public airports through the Continuing Florida Aviation System Planning Process (CFASPP). The FASP involves standard aviation system planning elements provided within most state aviation system plans, and assists in updating and maintaining the Florida Aviation Database (FAD), a comprehensive statewide aviation database. The FASP 2025 includes an analysis of the intermodal aspects of the state transportation system and a strategic aviation planning element that identifies seven strategic goals and the measurements, approaches, and recommendations to achieve these goals:

- Support new technologies and innovation in aviation
- Contribute to sustainable growth while remaining sensitive to the environment
- Provide efficient, safe, convenient, and secure airports
- Enhance Florida's leadership and prominence in the aviation industry
- Protect airspace and promote compatible land use planning around Florida airports
- Promote aviation to business, government, and the public
- Foster Florida's reputation as a military-friendly state

10. **FDOT Guidebook for Airport Master Planning**

Prepared by: Florida Department of Transportation, 2016
www.fdot.gov/aviation/flpub.shtm

The *FDOT Guidebook for Airport Master Planning* was developed for use by airport owners/sponsors, operators, and consultants when developing Florida airport master plans to assist in effective and appropriate master plan studies. All master plans developed for Florida airports must be developed in accordance with the FDOT Guidebook for Airport Master Planning which was updated in May of 2016.

Airport master plans are used to define and implement the long-term development plans of an airport. This includes projecting future aviation demand and developing facilities that can accommodate the projected growth at an airport. The elements of a master plan vary in complexity and level of detail depending on the size, function, issues, opportunities, and conditions of the individual airport but generally include the following:

- Public involvement program
- Existing conditions (inventory)

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[21] The FASP 2035, a comprehensive update, is currently underway.

- Environmental considerations
- Aviation demand forecasts
- Facility requirements
- Alternatives analysis
- Airport Layout Plans (ALPs)
- Facilities implementation plan, including a Capital Improvement Plan
- Financial feasibility analysis

It is of the highest importance to FDOT that the Guidebook for Airport Master Planning be utilized to help the state meet its airport improvement needs in a logical and cohesive manner. To accomplish this, the Guidebook for Airport Master Planning provides the following:

- Guidance on the necessary steps of an airport master plan
- Guidance on the development of individual components of an airport master plan

11. FDOT General Aviation Airport Business Plan Guidebook

Prepared by: Florida Department of Transportation, 2014
www.dot.state.fl.us/aviation/flpub.shtm

The *FDOT General Aviation (GA) Business Plan Guidebook* was developed as a resource to assist GA airports to develop financial strategies geared at a broad range of topics affecting an airport and its fiscal success. In an effort to remain financially self-sufficient, airports have focused on improving their financial health by diversifying their business models to include more non-aeronautical revenue. To accomplish this, the Guidebook provides the following key elements:

- Case studies on airports that completed business plans

- Step-by-step instructions on the business planning process

- Best management practices for airports completing a business plan

12. Airport Compatible Land Use Guidebook

Prepared by: Florida Department of Transportation, 2012
www.dot.state.fl.us/aviation/flpub.shtm

The *Airport Compatible Land Use Guidebook* highlights important information and factors that must be considered when evaluating various land use and development decisions that have the potential to impact public-use airports or military airfields in Florida. Information in the *Airport Compatible Land Use Guidebook* is applicable to individuals, airport sponsors, land developers, professional aviation consultants, state agencies and planners, and local government officials and planners. To accomplish this, the *Airport Compatible Land Use Guidebook* is divided into four distinct sections:

- **Section One**: Provides detail on the specific areas around airports and airfields that need to be protected from tall structures that may interfere with navigable airspace and/or land uses that may jeopardize compatibility

- **Section Two**: Provides detail on state laws, federal regulations, and various processes in place to prevent incompatible development around airports/airfields

- **Section Three**: Provides an overview of the process that all local governments in Florida should follow when they review a development application in order to be compliant with existing state statutes and federal regulations

- **Section Four**: Discusses strategies to prevent or correct land use incompatibilities around airports/airfields and responsibilities related to compatible land use

ADDITIONAL RESOURCES

13. **Florida Airports Council Sustainability Initiatives**

www.floridaairports.org/

In 2010, the Florida Airports Council (FAC) initiated a program to document the sustainability plans, programs, and initiatives that had been completed at Florida airports. To accomplish this goal, a survey was developed by the FAC Sustainability Task Force and was distributed to all FAC member airports to gather information on sustainability policies, initiatives, energy/waste reduction goals, beneficial information, and local "green" or sustainability initiatives/policies. Of all airports, responses were received from 27 airports in Florida. From this survey, a list of airports with various sustainability programs was developed. These sustainability programs include:

- Sustainability or "green" policies

- Sustainable planning/design/construction guidelines or sustainability plans

- Airport and/or airline waste recycling programs

- Local procurement process

- Alternative energy production

- LED lighting (roadways or airfield)

14. **Sustainable Aviation Guidance Alliance Database**

www.airportsustainability.org

The Sustainable Aviation Guidance Alliance (SAGA) was formed in 2008 to create consistent and consensus-based sustainability resources available for all airports. A web-based system was developed by SAGA members to provide users with an extensive list of sustainability actions and initiatives that can be implemented at airports. The SAGA website was developed to be interactive and allow users to learn about sustainability, share ideas and experiences, search sustainable practices based on custom information, and efficiently plan, implement, and monitor sustainability activities. To accomplish this, the website is divided into five modules:

- **Share**: This module allows users to add sustainable initiatives/practices to a library of sustainable initiatives as well as allows users to share case studies, documents, links, and comments on the initiatives/practices

- **Learn**: This module allows users to learn about the definition of sustainability, practical applications of sustainability principles at airports, and methods for integrating sustainability into existing business processes and an organization's culture

- **Search**: This module allows users to search for sustainability initiatives/practices that are meaningful to their organization as well as identify, evaluate, prioritize, and select initiatives/practices that help the airport

- **Plan**: This module provides a scalable framework, based on an individual airport's culture and business model, to assist users in starting, implementing, improving, and maintaining sustainability initiatives/practices. The framework is a systematic approach to set goals, prioritize actions and monitor progress

- **Measure**: This module provides information and guidance on how to measure progress in sustainability, including steps to help airports identify key performance indicators (KPIs) and associated metrics for sustainability goals and practices

15. **TRB AV030 Aviation Sustainability Subcommittee Materials**

www.trb.org/AV030/AV030.aspx.

To provide airports with specific information and resources related to specific aviation topics, the Transportation Research Board (TRB) developed an Information Resource Series to highlight information on particular topic areas from a broad range of sources that are referenced throughout all TRB resources. Related to sustainability, the Committee on the Environmental Impacts of Aviation (AV030) focuses on environmental issues central to airport planning, design, construction, and operation as well as aviation system and aviation technology development issues. Within this Resource Series, TRB provides numerous resources, publications, and news sources on the environmental impacts of aviation. Reports and resources included in the Environmental Impacts of Aviation Information Resource Series include:

- TRB Publications (from all TRB programs)

- Transportation Research Record Series (peer-reviewed papers published in the journal of TRB)

- National Academies Publications (from other units of the National Academies)

- Other Publications (from outside TRB and the National Academies)