



County of Los Angeles
Department of Public Works
Aviation Division

Streamlined Aviation
Sustainability Plan – Appendices

May 2017

County of Los Angeles
Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803



Table of Contents

Introduction to Appendices

Appendix A – Baseline Assessments

Appendix B – Sustainability Initiatives and Strategies

Appendix C – Evaluation Framework





Introduction to Appendices

The following Appendices serve as background and supporting documentation for the Streamlined Aviation Sustainability Plan (Plan) developed for the Los Angeles County Department of Public Works (Public Works) Aviation Division.



Appendix A – Baseline Assessment

A-1 Focus Areas

Baseline assessments were conducted for each of the sustainability focus areas identified in the Plan. Given that this is a streamlined Plan, detailed studies and analyses were not conducted. Instead, information was gathered using desktop research, interviews with Aviation Division staff, coordination with the Airport Operator including distribution of surveys to the five airport managers, and review of available records. Because the Plan is intentionally designed to be a concise document for internal and public distribution, certain details were omitted to maintain a manageable and easily understandable document. The following presents omitted details that were relevant to the planning process and outcomes. This Appendix is not intended to capture all information obtained during the baseline assessments, nor to repeat what is shared in the Plan.

1.1 Airport Projects

N/A; relevant information is summarized in the Plan.

1.2 Business Continuity

Current Context

As documented on the County's website:

“The Aviation Division is responsible for two funds: the Aviation Capital Projects Fund and the Aviation Enterprise Fund. All expenses incurred by the Aviation Division, including matching funds for eligible capital improvement projects, are paid from these funds. The Aviation Division does not draw any funds from the County's General Fund and, therefore, relies heavily on Federal and State airport improvement program grant money to maintain and expand facilities at the County-owned airports. Projects related to maintaining and expanding facilities and infrastructure at the County-owned airports that are not eligible for Federal or State funding are paid for entirely out of the Aviation Enterprise Fund.”

See also Airport Managers Questionnaire Results in Section A-2.

1.3 Materials

Ongoing Initiatives

- All airports recycle waste oil; Brackett Field Airport (POC) has three oil bins available for public deposit of oil, which is recycled on an as-needed basis.
- Whiteman Airport (WHP) repurposed an existing building, reconfiguring the facility for administration offices and a pilot terminal. This building is also being used as a non-profit community center and for civil air patrol activities.



1.4 Water

Current Context

According to the County’s website, the Los Angeles County Watershed Management Division of the Public Works Department is responsible for addressing flood risk management, water quality, water conservation, open space, and recreational needs. This Division is also responsible for periodic inspection of WHP for compliance with water regulations. WHP is closely monitored due to its location in the northern section of the Los Angeles River Watershed. The major tributary that feeds into the Los Angeles River from this area is located one mile southeast of WHP, beginning at Hansen Dam and flowing south along man made culverts.

1.5 Climate & Risk

Ongoing Initiatives

The airports serve as a base of operations for local firefighting efforts by the U.S. Forest Service, California Department of Forestry and Fire Protection, and other agencies. The U.S. Forest Service has a permanent year-round base of operations at General William J. Fox Airport (WJF) and is extremely busy during fire season. In 2016, POC was used by both the U.S. Forest Service and Cal Fire to fight fires.

1.6 Energy

Current Context

Because electricity data was provided in dollars spent, the average electricity rates for the Los Angeles-Riverside-Orange County area as reported by the U.S. Bureau of Labor Statistics were applied to determine total consumption.¹ Table 1 presents the resultant energy consumption from 2010 to 2015.

Table 1 – Total Airports Energy Consumption

Year	Total Energy Consumption (kWh)	% Change
2010	2,279,355.79	
2011	2,184,642.07	(4.16)
2012	2,172,804.07	(0.54)
2013	2,101,671.06	(3.27)
2014	2,154,190.03	2.50
2015	2,124,712.06	(1.37)

Source: Airport Operator, U.S. Bureau of Labor Statistics, and C&S

Ongoing Initiatives

- New generator installed at WJF.
- Several airports are partnering with the utilities to implement energy saving projects:

¹ A more thorough analysis is outside of the scope of this Plan.



- At San Gabriel Valley Airport (EMT), Southern California Edison is carrying out a savings program to upgrade lighting technology starting with the terminal building and some hangars.
- WHP is currently collecting bids from contractors as part of the CLIP program from the Los Angeles Department of Water and Power (LADWP) to upgrade all outdoor lighting to LEDs.
- There are timed lighting fixtures on the WHP terminal building.
- The County conducted a solar siting feasibility study several years ago and a tenant at WHP has since installed a PV array on its hangar. A second master lease holder is currently exploring installation at WHP.
- State regulations required utilities source 20 percent of their energy from renewables by 2010 and achieve 33 percent by 2020 and 50 percent by 2030.

1.7 Community

Current Context and Metrics

The Airport Customer Service Survey is conducted each year and measures the following:

- Public Works Focus Areas:
 - Overall Operations
 - Helpfulness
 - Promptness
 - Courtesy
 - Knowledge
- Aviation Division Focus Areas:
 - Security
 - Safety
 - Runways/Taxiways
 - Public Viewing/Recreation Area
 - Public Restroom
 - Pilot Lounge/Flight Planning Facilities
 - Lighting/Marking Airfield Guidance Systems
 - Fuel Facilities
 - Availability of Pilot Supplies
 - Appearance
 - Aircraft Washing Facilities
 - Aircraft Services

The results are tabulated for each facility in order to determine overall customer satisfaction with a goal of 3.5 out of 5. According to the results from the five most recent years, the average across the five airports has continuously exceeded the goal of 3.5. However, in 2016 the result for Compton/Woodley Airport (CPM) was 3.47, which is below the goal.



With regards to the airports’ economic impact, a report prepared by AECOM in 2013 was referenced. Although dated, this information could be compared to future studies:

Table 2 – Total Annual Impact by General Aviation Airport to the County of Los Angeles

	POC	CPM	EMT	WJF	WHP	Total
Output	\$35,400,000	\$14,700,000	\$21,500,000	\$14,000,000	\$54,500,000	\$140,100,000
Labor Income	\$12,600,000	\$6,200,000	\$7,800,000	\$6,800,000	\$19,000,000	\$52,400,000
Employment	317	110	185	158	412	1,184
Possessory Interest Tax	\$103,000	\$67,000	\$102,000	\$30,000	\$104,000	\$406,000

Source: AECOM and IMPLAN, 2013

Ongoing Initiatives

- Airport Operator has a marketing fund, which was mandated in the last renewal of their contract with the County. This includes a requirement to spend \$65,000 per year in marketing and community outreach including the enhancement of open house events. (There is also a \$50,000 fund for maintenance, which was created to empower airport managers.)
- Open houses are held at all of the airports (a contractual obligation).
 - Other events held at the airports are typically driven by off-airport organizations.
 - As of August 2016, EMT had hosted airport tours for over 45 schools. These included a tour for 10 students from Junior Blind of America, who were given the opportunity to sit in the cockpit of the airplanes.
 - At WHP, the Professional Helicopter Pilots Association held its first meeting in the new conference room facility in the fall of 2016. The Experimental Aircraft Association also hosted its Young Eagles event and a mini career day at the Airport in the summer.
 - Every fourth Saturday of the month kids fly for free at EMT.
- The following presents the public events held at the airports in 2016:



Table 3 – Airport Public Events

Type of Event	# of Events				
	POC	CPM	EMT	WJF	WHP
School Tours	4	20	15	6	2
Open House/Air Fair/Air Show	1	2	1	1	1
Display Days	12	24	12	12	12
Pancake Breakfast/Chili Cook-off				4	2
Boy/Girl Scouts Aviation Badge Days					2
EAA Young Eagle Flying Days					12
Pilot Meet & Greet BBQ	2				
BBQ			1	1	
Poker Run	2			1	
FAAST/Wings Seminars	5				
Totals	24	46	29	25	31
Grand Total	155				

- The Aviation Division undergoes all expected training, e.g., workplace violence, discrimination, best practices. Staff also go to industry conferences, and some are receiving their Environment Sustainability Professional (ENV SP) credential.
- Airport staff training by the Airport Operator is provided mostly in-house (approximately 12 employees at each airport). There is a reimbursement program for flight training expenses for employees.

A-2 Airport Managers Questionnaire Results

A questionnaire was prepared for the Airport Operator and distributed to each of the airports' managers to obtain input on current initiatives, processes and procedures at each of the facilities. The results are provided below.



Table 4 – Questionnaire Results by Airport

	CPM	EMT	POC	WJF	WHP
Maintenance:					
a. Does your airport have a formalized work order process or maintenance plan/tracking program? If so, can you share or describe this?	We use paper form logs and work orders for all maintenance program.	No formalized process other than to record what is broken.	Yes. The airport reviews facilities and grounds on a daily basis, generating work orders addressing immediate maintenance needs. These work orders are assigned equally to all shifts. Additionally, an airport maintenance program is set that looks at the entire airfield from a preventative maintenance perspective. This includes: pavement, buildings/hangars, airfield lighting, ground service equipment, and operations vehicles. One example is a complete airfield signage repair and cleaning project that occurs every October. The work order process works like this: work orders include a marked-up google earth overhead screenshot of the airfield accompanied with a detailed description of what and how the maintenance needs to be accomplished. The work order also allows for the uploading of photos to enhance project comprehension (see attached). When the work order assignment is completed it is submitted to the maintenance supervisor for validation of work completion and quality of work. The work order is signed and archived for future reference.	Some aspects are formally tracked, at this time it's all done manually.	Maintenance is addressed as needs arise. We do have scheduled maintenance and we track all vehicle maintenance in log books. Any hangar or airfield maintenance is noted in our daily logs.
b. Do you conduct regular inspections or rely on requests to initiate repairs/improvements?	We do daily, monthly and yearly logs.	Regular runway inspections, annual hangar inspections otherwise request to initiate repairs.	Both. The airport inspects the airport daily but there will always be maintenance events that are unexpected (requests).	Both.	We inspect all areas of the airport daily and address any items observed. Hangar maintenance requests will often come directly from tenants though as issues are often not visually observable or are inside the locked units.
Energy:					
a. Do any of your tenants have ongoing or planned renewable energy projects (e.g., solar)? If so, please describe.	N/A	No.	Not at this time.	None.	We have a master lease holder with a solar project on their roof and a second master lease holder exploring installation.
b. Have your facilities undergone efficiency upgrades (e.g., LEDs, replacement of HVAC equipment, etc.)? If so, please describe.	All outside lighting is on photocells and our restrooms have motion sensors.	Some internal/exterior building lighting upgrades.	Yes. The airport recently upgraded a number of buildings to the new led standard. All airport tenants were encouraged to participate in the program.	Partial upgrades. Building LEDs and some new HVAC.	We are currently collecting bids from contractors as part of the clip program from LADWP to upgrade all our outdoor lighting to LEDs. We completed indoor led upgrades last year as well. We also have timed lighting fixtures in our terminal building and photocells on all outdoor lighting.
Water:					
a. Have your facilities undergone water conservation improvements (e.g., waterless urinals, etc.)? If so, please describe.	Yes, just only watered tress, usage of wooden chips to keep moisture. Also, we have installed waterless urinals	Waterless urinals at terminal building, desert landscape project around terminal	Yes. The airport has waterless urinals.	None.	We have installed waterless urinals in our bathrooms.



b. What water conservation measures are in place (e.g., no longer watering grass areas)?	We have completely stopped watering grass areas due to the drought.	No longer having grass, tenants not allowed to use water spigots.	Very little irrigation takes place on the airfield preventing much improvement in the way of water conservation.	No longer watering grass.	We have discontinued the watering of grass areas and ensured all water connections on the airfield are locked to stop unauthorized water usage.
Air:					
a. Any measures in place to promote alternative transportation/discourage single-occupancy vehicle use (e.g., bike racks)?	N/A	One bike rack at terminal.	No	Likely not practical due to our proximity to the city and extreme weather conditions.	Not at this time.
b. Does your facility have or have plans for electric vehicle charging stations?	Yes, we use electric golf carts.	Plans in place for an EV charging station.	Not specifically, but the County has shown an interest.	Yes.	Vehicle charging stations are scheduled for installation in the Airport terminal parking lot.
c. Any other emission reduction measures in place such as an anti-idling policy?	No, don't have any policy.	No.	The Airport is a destination and is not subject to the problem.	We do have an anti-idling policy. It applies to airport operations staff. No real enforcement, it is policy.	Not at this time.
6. Any other sustainability initiatives in place you would like us to document?	No.	No.	Not at this time.	None.	No.
7. Any ideas or suggestions for sustainability improvements at your facility?	Upgrade to led lighting, and add solar panels on hangars.	Solar panels on hangar rows if able to support.	Not certain that the airfield has any areas suitable for a solar array installation to supplement electricity use but might be worth a look.	Desert landscaping.	No.



Appendix B – Sustainability Initiatives and Strategies

Once the baselines and general goals were established for each focus area (see Plan), strategies for contributing to these goals were identified using a number of resources including the consultant’s internally developed resources documenting initiatives that have been considered, assessed and implemented on at airports across the country. Additional sources included the County ideas and commitments and external resources such as the Sustainable Aviation Guidance Alliance (SAGA), various projects completed by the Transportation Research Board (TRB) Airport Cooperate Research Program, and the Envision and LEED rating systems. Over 150 ideas were identified.

B.1 – Recommended Short-Term Strategies

In order to determine a holistic set of strategies that could be implemented and will provide value to the County in the short term, strategies were screened and prioritized considering several factors displayed below:



This process led to numerous strategies being recommended for implementation. These have been sorted into:

1. Short-term strategies for Aviation Division implementation. These strategies are summarized in the Plan but additional details are provided in Section B.2 of this Appendix.
2. Short-term strategies for incorporation into Airport Operator requirements based on the current division of roles and responsibilities between the Aviation Division and Airport Operator. Similar to the above, these requirements are summarized in the Plan but additional details are provided in Section B.3 of this Appendix.
3. Sustainability Toolkit for Non-LEED Projects, which incorporates numerous sustainability strategies for non-building projects (given the County’s emphasis on infrastructure projects within the short-term horizon) and positions the County for adherence to the Envision rating system. See Section B.4 of this Appendix.



B.2 – Short-Term Strategies for Aviation Division Implementation

Short-Term Strategies, Contribution to Goals, Timeframe, and Cost Implications										
#	Recommendation (screened and prioritized)	Business Continuity	Materials	Water	Climate & Risk	Energy	Community	Timeframe	Cost to County?	Cost Notes
1	Identify, pursue and report out on transportation funding sources to convert service vehicles to electric or other alternative fuels (see Aviation Division Management Priorities/Goals for 2016/2017). (See also #15.)							Underway (June 30, 2017, deadline)	-	TBD
2	Complete update of business plan (ongoing) and implement measures identified according to the proposed schedule.							Underway	-	
3	As defined in the MAPP Goals for 2016/2017: Work with the County Geotechnical and Materials Engineering Division (GMED) to revise the Airport Pavement Management Program by reviewing current practices and establishing procedures to better manage airport pavement maintenance and pavement preservation projects.							Underway (June 30, 2017, deadline)	-	
4	As defined in the MAPP Goals for 2016/2017: Develop a Project Management Plan for FAA and Caltrans Aeronautics programs to enhance airport project delivery.							Underway (June 30, 2017, deadline)	-	
5	Promote professional development of County staff in relation to sustainability by offering compensation for staff to become Envision Sustainability Professionals or LEED Accredited Professionals.							Underway / Continuous	Y	Minimal cost.
6	Continue with water conservation measures and restrictions implemented during California's severe drought.							Underway / Continuous	-	
7	Continue to host annual waste roundups at two or more of the facilities (coordinated with other County division).							Underway / Continuous	-	
8	Encourage alignment of airport facilities/services with educational institutions (e.g., Antelope Valley College lease of the old museum hangar at WJF).							Underway / Continuous	-	
9	Continue with the annual Airport Customer Service Surveys. For any airport with survey results below the goal, require that a plan be submitted and implemented to address areas of concern. Every two years increase the Airport Customer Service Aviation Division goal by 0.1 until this is increased to 4 out of 5 (goal is currently 3.5 out of 5; achieved 3.79 in 2016).							Underway / Continuous (with updates per recommendation)	-	
10	Ensure that public meetings are at varied times and locations.							Underway / Continuous	-	
11	When a need arises for a new facility/space, evaluate existing buildings on site to determine potential for adaptive reuse.							Underway / Continuous	-	
12	For all new or improved building projects, follow County's LEED policy and require installation or replacement of existing HVAC, plumbing fixtures, and lighting with energy-efficient alternatives. Conduct a cost-benefit analysis for solar water heaters, noting that the energy required to heat water is significant and this could be a major cost-saving measure.							2017 and Continuous Thereafter	Y	May involve additional upfront costs but will be offset by operational savings.
13	Apply the Toolkit for Non-LEED Projects.							2017 and Continuous Thereafter	-	
14	Incorporate identification of alternative funding sources for non-AIP eligible projects during internal, annual Airport Capital Improvement Program (ACIP) discussions, including local, state and federal programs.							2017 (fall) and Annually Thereafter	-	
15	Pursue Zero Emissions and Vehicle Infrastructure (ZEV) Program funds for purchase of electric fleet/service vehicles in FY2018.							2017 (begin coordination)	Y	\$37,500 Based on application prepared for two electric utility vehicles (FAA would match this amount).
16	Share questionnaire results from airport managers indicating inconsistent use of electronic work order system and best practices being used at different facilities with the Airport Operator to further enhance preventative and responsive maintenance procedures.							2017	-	Little effort required.

Short-Term Strategies, Contribution to Goals, Timeframe, and Cost Implications										
#	Recommendation (screened and prioritized)	Business Continuity	Materials	Water	Climate & Risk	Energy	Community	Timeframe	Cost to County?	Cost Notes
17	For new projects or any lighting/signage at the end of their useful life, upgrade to LEDs. This includes airfield lighting and signage. Notes: 1) none of the airports have high-intensity runway lighting, which is the only level not currently eligible for AIP funds. Therefore, FAA funding is available. 2) Initiative also incorporated into Toolkit for Non-LEED Projects.							2017 (begin with upcoming design projects) and Continuous Thereafter	Y	TBD; upfront costs may increase but energy efficiency and reduced maintenance justify LEDs particularly in Southern California due to high energy rates.
18	Show leadership in aviation sustainability by pursuing Envision verification and/or LEED certification (see County policy) for at least one Aviation Division project.							2018 (target for first project to be verified/certified underway)	Y	Verification and certification costs involved.
19	Specify drought-tolerant landscaping for all facilities (County guidance available).							2018 and Continuous Thereafter	-	
20	Establish a sustainability budget to fund projects that are not AIP-eligible and require upfront investment.							2018 (for fund establishment) and Continuous Thereafter	Y	TBD
21	For major projects involving an alternatives assessment (e.g., for a pavement design), identify and prioritize life cycle costs versus capital cost comparisons. Where sensible, fund any upfront incremental difference through the sustainability budget (if not AIP eligible).							2018 (following budget establishment) and Continuous Thereafter	-	Upfront costs may increase.
22	Identify at least three areas (building-top or ground-based) viable for solar photovoltaic panels (referencing the previously prepared solar feasibility study) and market these (via RFP or direct coordination) to solar companies.							2019	-	
23	For materials excavated/removed during construction projects that cannot be reused on the project (refer to the Toolkit for non-LEED Projects and LEED/Envision policy), identify other uses on-airport, at the other County-owned airports, or at other County-owned facilities; if necessary, establish a location for stockpiling of materials for future reuse.							2019 (begin with upcoming capital projects) and Continuous Thereafter	-	
24	Incorporate sustainability criteria into approval process for tenant improvements and establish tenant improvement guidelines (or share County guidelines).							2019 (deadline for inclusion of criteria and development of guidelines) and Continuous Application Thereafter	Y	Minimal cost.
25	Identify and implement steps that would be necessary by the County in order to enable the opening of a restaurant (third-party operated) at WHP. Initial coordination is already underway by the Airport Operator.							2019 (deadline)	-	
26	Work with one of the restaurant operators to implement a pilot composting program and report out on the success and/or challenges of the program. If feasible, move forward with permanent composting. Consider incorporating this initiative into the RFP for a future restaurant at WHP.							2019 (initiation of pilot program)	-	Likely absorbed by operator.
27	Complete an economic impact study in 2019 and compare results to the 2013 study, sharing a summary with the public.							2019	Y	Minimal cost.
28	Coordinate with the Regional Planning Commission to develop Airport Land Use Compatibility Plans (ALUCPs) for individual facilities (excluding POC, which has a plan published in 2015) or to update the County-wide ALUCP.							2020	-	

Short-Term Strategies, Contribution to Goals, Timeframe, and Cost Implications										
#	Recommendation (screened and prioritized)	Business Continuity	Materials	Water	Climate & Risk	Energy	Community	Timeframe	Cost to County?	Cost Notes
29	Retrofit existing hangars with LED lighting unless hangars are within five years of their useful life. Review upcoming hangar inspection schedules or airport construction schedules requiring tenant displacements to coordinate retrofits (avoiding multiple disruptions to tenants).							2020 (deadline)	Y	TBD; upfront costs may increase but energy efficiency and reduced maintenance justify LEDs particularly in Southern California due to high energy rates.
30	Install sensors in all County-owned buildings and areas to control lighting (including outside areas where appropriate, i.e., not affecting airfield safety); if not cost-effective, post signage encouraging users to turn off lights and describing benefits.							2020 (deadline)	Y	Upfront costs but potential for operational savings (though realized by Airport Operator).
31	Install low-flow water fixtures and/or waterless urinals at all facilities (already implemented in several).							2020 (deadline)	Y	TBD.
32	Post signage about the County's diesel anti-idling policy and the benefits/importance of this policy.							2020	Y	Minimal cost.
33	Prepare Greenhouse Gas emissions inventories for each airport in order to understand their contributions to overall County emissions and prioritize projects that will have the greatest impact in achieving emission reduction targets.							2020	Y	Minimal cost.
34	Evaluate the benefits and costs of pursuing third-party verification of the emissions inventory through the Airports Council International – North America (ACI-NA) Airports Carbon Accreditation Program to demonstrate leadership and transparency; make decision based on results.							2020	-	
35	Pending the results of the above, pursue third-party verification of the emissions inventory through the Airports Carbon Accreditation Program to demonstrate leadership and transparency.							2020	Y	Cost associated with verification and registration.
36	Perform a climate change vulnerability assessment of airport land and buildings and identify/implement specific strategies to mitigate risks (this would contribute to the Envision rating system).							2020 (completion of assessment)	Y	Minimal cost for assessment; strategies may require added costs.
37	Complete update to the Rules and Regulations (previously initiated) and incorporate sustainability where feasible.							2020	-	Previously budgeted.
38	Distribute press releases regarding specific airport projects and sustainability accomplishments (coordinate with Envision accreditation/LEED certification initiative; the Institute for Sustainable Infrastructure [ISI] and							2020 (assuming project completion)	-	
39	Assess the optimal location for (considering cost/benefit) and install a rainwater collection tank at one of the airports (at a minimum); reuse water for allowable purposes (e.g., dust control during maintenance and construction projects, tree watering, etc.).							2021	Y	Minimal cost.
40	Implement composting at major airport events including the Air Shows.							2021 (implement at 1 or more events) and Continuous Thereafter	Y	Minimal cost.
41	Work with involved County divisions to implement electronic submittal/review processes for design and construction projects, limiting the use of paper and streamlining administration.							2021	-	May require new system and training.
42	Install additional electric vehicle charging stations for public and employee use, targeting availability at all airports (potentially excluding WJF depending upon potential for use). Leverage federal, state or local funding (FAA funding only available for airport-dedicated vehicles and equipment, i.e., not public use).							2021 (deadline)	Y	Potential to take advantage of funding programs.



B.3 – Short-Term Requirements for Airport Operator

Airport Operator Requirements

Short-Term Requirements, Contribution to Goals, and Timeframe								
#	Requirements	Business Continuity	Materials	Water	Climate & Risk	Energy	Community	Timeframe
AO	In future revisions to the Airport Operator contract or in the issuance of a new Request for Proposal, require the following from the Airport Operator:							2021 (or sooner if opportunity arises)
a	Request that utilities (at least waste, energy, and water) provide actual consumption/quantity data (as opposed to costs only); track and report this information to the County by airport and facility if possible (leveraging existing sub-metering where available). Reporting shall occur during Airport Manager updates at Aviation Commission meetings. Note any periods that are outside of the typical range identifying intended solutions (e.g., fixing malfunctioning equipment) or reasoning for these peaks.							
b	Establish and implement an environmentally preferred product purchasing policy or follow County guidelines (http://dpw.lacounty.gov/epd/drp/countypolicy.cfm and http://dpw.lacounty.gov/epd/drp/paper.cfm). At a minimum, the policy should include procurement of recycled-content and/or compostable paper products, remanufactured toner cartridges, minimized packaging (i.e., purchasing in bulk whenever possible), and environmentally friendly cleaners and solvents for custodial operations.							
c	Recycle all of the following materials at the five airports and coordinate with the waste management service provider if applicable recycling is not currently available: paper, plastics (#1 and 2), cardboard, metal and aluminum containers, and glass containers. Co-locate recycling bins adjacent to all trash cans in public areas at the airports with educational signs encouraging recycling and notifying airport users of acceptable materials.							
d	Provide at least biannual educational training to on-site personnel on waste reduction and recycling practices as well as storm water pollution prevention measures.							
f	Hold a fun run at one of the facilities using the Marketing Fund to invite surrounding community members, airport users, and tenants to come together at the airport; charge a minimal fee to donate collections to a local charity. Coordinate with the County to identify an upcoming project that may necessitate a runway or taxiway closure providing an opportunity for this event at the end of construction.							



B.4 – Toolkit for Non-LEED Projects



LA County Aviation Sustainability Toolkit for Non-LEED Projects

The County has adopted the Envision rating system for non-LEED projects. **In applying this guidance, all credits should be considered by design teams.** However, the following “toolkit” sets a **foundation** for initiating these projects from the Owner’s perspective and positioning the projects for Envision application. Depending on the scale of the projects, the County may not require third-party verification/pursuit of an Envision award. However, the following would still provide benefits given their contribution to the sustainability goals documented in this SMP. **Note: The following are in addition to all regulatory requirements including NEPA, CEQA, Title VI, etc.**



Step 1: N/A or Ineligible Credits*

Due to the nature of maintenance and development at federally funded airports, there are several Envision credits that are typically ineligible or not applicable (N/A). N/A credits do not contribute to the total point calculation and award determination.

- Quality of Life (QL): Many of the local workforce/economy will not be eligible since FAA grant assurances prevent local preference.
- Natural World (NW): Many of the siting credits will not be applicable to maintenance projects (primarily the focus of the County’s 5-year ACIP projects). This is because the project locations will be pre-selected by nature of a maintenance project.
- Resource Allocation (RA): The monitoring of water systems credit will likely be N/A as it relates to operational consumption.

*These should be reviewed for confirmation depending on the project

Step 2: Requirements* for All Projects (organized by Envision credit category)



- For significant projects (>\$2M construction cost) engage intern during design or construction to support local human capital development.
- Except for projects at WJF (due to lack of bus service and remote location), encourage contractor carpooling or alternative transportation modes during pre-bid meeting and/or outreach; make contractors aware of options.
- For projects with potential to disrupt tenants and/or surrounding residents, establish a communications plan to ensure timely notifications and alerts. Include education on the project’s intent and benefits.



- At the onset of design, engage project team and sponsor to discuss sustainability priorities and opportunities.
- During Schematic, consider options to extend project lifespan (may include non-pavement elements, e.g., drainage, electrical, etc.); provide return-on-investment (ROI) estimates for County decision, noting AIP eligibility.
- In Final Design Report, include recommendations with estimated costs for preventative maintenance.
- In Request for Bid Documents (RFB), request environmental/sustainable strategy ideas and lessons learned from contractors.



- Maximize reuse potential of existing materials in rehabs and reconstructions, adhering to FAA standards.
- Identify options for beneficial, cost-effective reuse of suitable, excavated material with on-site emphasis.
- Require construction waste management tracking & reporting in Specifications with target diversion rate (%) of materials from landfills.
- Specify drought-tolerant landscaping, if applicable.
- Require that all vegetation that has to be removed be chipped for on-site mulching or composting.
- Specify LEDs where allowed for all lighting unless ROI > 10 years.



- Identify pre-disturbed areas for construction staging unless this would significantly affect construction efficiency or tenant circulation; provide reasoning if so.
- For projects involving new impervious surfaces, validate scope limits to determine if capacity or operational efficiency needs can be met with a smaller footprint; consider permeable pavements for non-aircraft areas.



- At onset of design, review climate risks and vulnerabilities (e.g., increased potential for flooding, storm surges, high-temperature events, etc.) at airport using County or other resources to determine potential impacts to the project; determine and document if these should affect design decisions.

*Although screened in consideration of FAA standards, federal, state and local requirements may preempt the above; coordinate with the County on any concerns.

Step 3: Credits Required to Achieve Enhanced or Above

Envision includes Levels of Achievement (LOAs) for each credit to drive project teams beyond conventional design. Because the following credits specifically contribute to the SMP goals, the County should require that teams achieve Enhanced or above unless reasoning is provided as to why this is not feasible. Notably, the County is not prescribing measures as to **how** to achieve a higher LOA.

- RA1.6 Reduce Excavated Materials Taken Off Site
- RA2.1 Reduce Energy Consumption
- RA3.2 Reduce Potable Water Consumption (if Project involves water consumption post-construction)





Appendix C – Evaluation Framework

The Aviation Division may choose to leverage the evaluation framework used in the Plan to screen and prioritize future ideas. The following summarizes this framework.

Step 1: Screening – Feasibility and Relevance

Strategy Idea	Highly Applicable/ Relevant to County Airports' Facilities and Operations	Within Sponsor Control	Complies with Regulations (e.g., FAA)
[Enter Here]	Yes/No?	Yes/No?	Yes/No?

If answered Yes for all of the above, Continue to Step 2.

Step 2: Screening – Ripe for Implementation

Strategy Idea	Funding Potentially Available	No Negative Opera- tions & Mainte- nance Implications	Staff Resources Available
[Enter Here]	Yes/No?	Yes/No?	Yes/No?

If answered Yes for all of the above, Continue to Step 3.

Step 3: Prioritization

While the following is not a complete tool for prioritization (given the scope of this planning effort), considering the idea's contribution to the Aviation Division sustainability goals as well as the cost implications will help inform decision-making.

Strategy Idea	Contribution to Goals (Positive, Negative, or Neutral)						Costs (high, medium, low)
	Business Continuity	Materials	Water	Climate & Risk	Energy	Community	
[Enter Here]							