



Los Angeles World Airports Sustainability Report

June 2010

Los Angeles World Airports
**Global Leader in
Airport Sustainability**

S U S T A I N A B I L I T Y R E P O R T



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Gina Marie Lindsey, Executive Director



Los Angeles World Airports

CDM



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June 30, 2010

Honorable Mayor Villaraigosa:

LAWA is pleased to submit to you our Sustainability Report for 2009. Through its ongoing commitment to becoming the greenest airport system in the world, LAWA continues to incorporate sustainability in all of its operations, development, and construction.

LAWA continues to implement its Sustainable Airport Planning, Design and Construction Guidelines, ensuring that all new and re-designed buildings and infrastructure are planned and built for a sustainable future. Also, Leadership in Energy and Environmental Design (LEED®) standards are being applied to terminals at LAX with great success: the recently completed renovation of the Tom Bradley International Terminal was certified as LEED® Silver (while still remaining on time and on budget) and the Tom Bradley West project is being designed to achieve a higher level of LEED® certification as well. Along with conservation of resources and an enhanced building environment for LAWA's passengers and employees, many features of these "green" buildings, such as energy and water efficiency, will result in substantial monetary savings for the airport.

Challenging economic times underscore the need to carefully balance competing demands for scarce resources and to diligently seek out the most cost-effective means to achieve our Sustainability Plan targets for improvement. As detailed in this report, LAWA's commitment and the talents and dedication of its staff have achieved that balance as we move even further toward our goals of environmental, social, and economic sustainability.

Sincerely,

Gina Marie Lindsey



LAWA'S MISSION AND ORGANIZATION

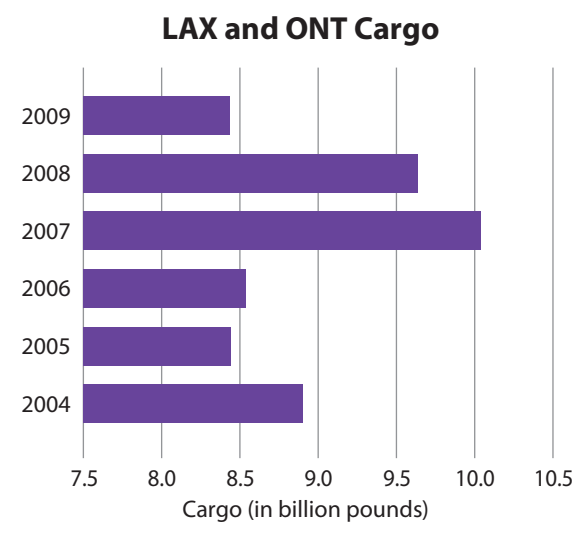
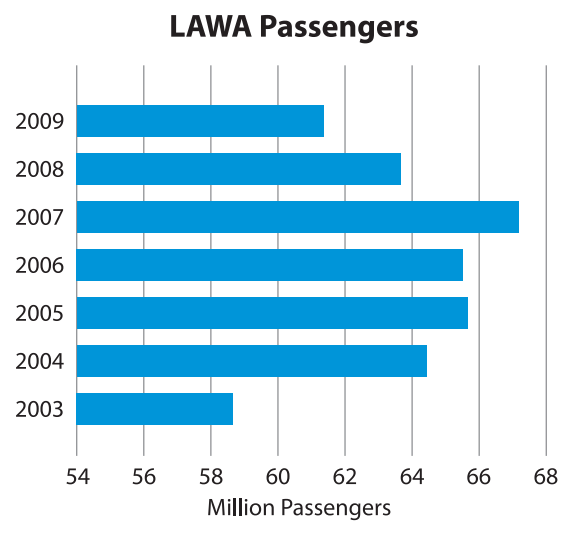
Los Angeles World Airports is the Los Angeles city department that owns and operates a system of three airports: Los Angeles International (LAX), LA/Ontario International (ONT) and Van Nuys (VNY). Each plays an integral role in helping to meet the Southern California regional demand for passenger, cargo and general aviation service. Each airport makes a distinct contribution to the strength of the system as it provides a high level of safety, security and service for its customers, communities and stakeholders. LAX is the sixth busiest airport internationally and third in the U.S. ONT ranks 59 among U.S. airports. VNY ranks 25 internationally in the number of flight operations, and is the world's busiest general aviation airport.

As the aviation authority for the nation's second largest city, and hub of one of the world's most populous metropolitan areas, Los Angeles World Airports (LAWA) is faced with the challenges of providing an airport system to serve a major portion of the Southern California market. LAWA has met this challenge, and at no cost to the taxpayer.

Los Angeles World Airports is a self-supporting department of the City of Los Angeles, governed by a seven-member Board of Airport Commissioners. The Board is composed of public-spirited business and civic leaders who are appointed by the Mayor and approved by the City Council. Policies of the Board are carried out by a professional administrative staff and nearly 2,500 employees who operate and maintain the three airports and one airport property in Palmdale.

Passenger and Cargo Information

At LAX, passenger use is estimated to have decreased by approximately 1 million passengers from 57.7 million to 56.5 million in 2008 and 2009, respectively. ONT's passenger use is estimated to also have decreased by approximately 1 million to 4.9 million in 2009. Cargo amounts have decreased to 2005 quantities.





LAWA AND SUSTAINABILITY

In July 2007, Mayor Antonio Villaraigosa signed Executive Directive Number 10 – Sustainable Practices in the City of Los Angeles - that required all Los Angeles City departments to develop a sustainability program to guide their “functions, practices and policies.” LAWA welcomed this action by the Mayor as, three months prior to the signing of the directive, Los Angeles City Council passed the Greening LAX motion that committed LAX to developing an aggressive program to make it the greenest airport in the world. In response to this motion, LAWA committed to developing a Sustainability Improvement Program to further develop and implement procedures and practices to meet the established goals.

On August 7, 2007, less than one month after the signing of the Mayor’s directive,, the Board of Airport Commissioners adopted LAWA’s Sustainability Vision and Principles. The Sustainability Vision and Principles form the foundation upon which LAWA’s sustainability program is built. From this document, LAWA developed the Sustainability Performance Improvement Management System (SPIMS) as a tool for setting objectives, targets and metrics, implementing initiatives focused on the objectives, and providing continuous improvement in its existing sustainability activities.

Over the next nine months, from August 2007 to April 2008, LAWA worked with over 150 dedicated staff to develop objectives, targets and initiatives to guide

LAWA in its sustainability endeavors. Through SPIMS, LAWA focused on the “Triple Bottom Line” approach to sustainability which provided LAWA with the critical foundation for managing and tracking its sustainability performance and achieving its objectives.



The cornerstone of SPIMS is an integrated and coordinated approach across LAWA’s airports to engage all levels of the LAWA organization to establish and prioritize sustainability objectives, establish specific and measurable targets, identify and enable new activities and initiatives, and monitor and report progress. More information on SPIMS can be found in Appendix A.

The sustainability program is led by the Environmental Services Division. The Division has worked closely with all of the other LAWA divisions to further the objectives of the program in the midst of the largest economic downturn since the 1920s. This report documents the activities performed during 2009, the first full year for the development and implementation of the sustainability targets and initiatives.



LAX Modernization and Sustainability

In February 2007, LAWA began the LAX Capital Improvement Plan that will allow LAX to continue to be a world class airport for future generations. These projects will allow LAWA to become a more efficient airport and increase safety for passengers and ground personnel. With a more efficient airport, aircraft and support vehicles will use less fuel which contributes to pollution. In addition, each of these projects will meet the ambitious LAWA requirements for sustainability. The following projects are part of the program:

Tom Bradley International Terminal Renovation (February 2007 – March 2010)

In March 2010, LAWA completed a \$737-million renovation program of the Tom Bradley International Terminal (TBIT) at LAX, which opened in 1984, that makes traveling through this international gateway safer, faster and more comfortable. The program included major interior renovations to the departures/ticketing lobby, customs and immigration arrivals hall, arrivals corridors and waiting area (meet-and greet); as well as modifications to two of the gates that allow them to accommodate new aircraft such as the Airbus A380 and the Boeing 787.

In recognition of the renovation's efforts to maximize operational efficiency and minimize environmental impacts, the U.S. Green Building Council awarded the building its prestigious Silver LEED-EB (Leadership in Energy and Environmental Design-Existing Building), recognizing the. Significant upgrades to the terminal's environmental management system included:

- automating the building's lighting control system using high-efficiency fluorescent lighting with dimmable ballast, and
- installing more energy-efficient heating, ventilation and air-conditioning (HVAC) systems.

The renovation program also focused on materials and resource conservation, with more than 75 percent of construction and demolition waste recycled or salvaged. For example, the new terrazzo floors and metal ceilings are comprised of 80 percent and 70 percent recycled material, respectively.

Cross Field Taxiway (May 2009 – July 2010)

The Crossfield Taxiway Project (CFTP) will realign the existing World Way West road and construct two bridges over the road - one for aircraft crossing and the other for vehicular traffic. The CFTP will provide another taxiway connection between the north and south airfield complexes at LAX. The CFTP will improve safety and efficiency of aircraft ground movements, as well as alleviate periodic congestion that occurs at existing taxiways.

This project includes demolishing existing structures, removing existing deteriorated concrete and asphalt pavement; constructing Portland Cement



Concrete and asphalt concrete pavement; installing airfield signage and lighting systems and airfield pavement markings; and improving storm drains. During construction, LAX and its contractors are reusing concrete, setting up parking areas for contractor personnel to park their cars using pervious concrete, and using reclaimed water for dust control.

Bradley West (March 2010 – December 2013)

- The Bradley West Project will provide greater capacity to the TBIT's west side with the addition of new gates to accommodate new-generation aircraft and a Great Hall for dining, retail shopping and passenger amenities located beyond passenger security screening. Passengers will experience a quality level of comfort and convenience with:
 - 15 new roomier boarding gates/waiting areas that can accommodate new generation aircraft (Airbus A380 and Boeing 787 Dreamliner), which are more fuel-efficient, quieter and less polluting.
 - Dual passenger loading bridges for faster boarding and deplaning.
 - Great Hall with 140,000 square feet for premier dining, retail shopping, other passenger amenities, and airline club lounges.
 - Upgraded customs and immigration federal inspection areas for more efficient passenger processing.
 - Secured corridors between Terminal 3, TBIT and Terminal 4.

The building will meet LEED Silver standards with the following sustainable attributes:

- Use of low flow and ultra low flow fixtures throughout the buildings.
- Use of lighting controls to minimize electricity use.
- Use of low volatile organic compound emitting materials.
- Use of recycled content building materials.
- Use of regional building materials.
- During construction, use reclaimed water for dust control.
- After construction, work with tenants and concessionaires to install equipment to minimize water consumption and electricity use.
- After construction, perform commissioning activities to ensure optimal use of all HVAC equipment and lighting controls.

LAFD Aircraft Rescue Firefighting Station 80 (Summer 2009 – November 2010)

The Station will replace the current fire station. The current station is 40 years old and has limited storage and training areas. The new facility will be better suited to accommodate the size, volume and nature of operations at LAX associated with newer generation aircraft.



Most members of the public will never be aware of the new station but it will allow better and quicker response to emergencies which will provide peace of mind to LAX's passengers. Even its new location (on the airfield midway between the north and south airfield complexes) will be better situated to respond to any type of emergency.

In addition to these sustainable attributes, the station itself will meet LEED Silver standards with the following sustainable features:

- Use of low flow and ultra low flow fixtures throughout the buildings.
- Use of lighting controls to minimize electricity use.
- Use of low volatile organic compound emitting materials.
- Use of recycled content building materials.
- Use of regional building materials.
- During construction, use of reclaimed water for dust control.

Central Utility Plant (CUP) Replacement

In 1984, LAX modified its existing Central Utilities Plant to a co-generation facility that simultaneously generates electrical power and steam. This process reduces fuel usage by 10% to 30% compared to separate electricity and heating processes. As the Central Utilities Plant generates electricity, steam is produced using waste heat from the plant's turbines. The steam provides heating and air conditioning (by powering steam refrigeration chillers) for buildings in LAX's Central Terminal Area. As part of the modernization, LAWA is replacing the Central Utilities Plant with a more energy efficient facility that will use state of the art equipment to supply the Central Terminal Area with electricity, heat and cooling in an optimal manner. Moreover, the facility itself will be built to LEED Silver standards. Construction will begin in 2011.



REPORT ORGANIZATION

The 2009 Sustainability Report is the third report developed by LAVA to communicate to its stakeholders – staff, passengers, community members, concessionaires, tenants, government officials – the activities and programs developed to become a sustainable partner with all members of Southern California community. The document consists of nine sections for each of the sustainability objectives developed to guide LAVA in setting targets and implementing sustainable initiatives to become the greenest airport in the world.

As part of the SPIMS process, LAVA established clear objectives, set achievable targets and implemented actions necessary to meet these targets and objectives. LAVA established the following fundamental objectives that it will use to continuously evaluate its sustainability progress:

- 1 INCREASE WATER CONSERVATION IN ALL AIRPORT FACILITIES AND FOR ALL OPERATIONS.**
- 2 INCREASE USE OF ENVIRONMENTALLY AND SOCIALLY RESPONSIBLE PRODUCTS.**
- 3 INCREASE RECYCLING AND SOURCE REDUCTION EFFORTS AT ALL FACILITIES AND FOR ALL OPERATIONS.**
- 4 REDUCE ENERGY USAGE AND INCREASE USAGE OF GREEN POWER AT ALL AIRPORT FACILITIES AND IN ALL OPERATIONS.**
- 5 REDUCE EMISSIONS FROM ALL OPERATIONS INCLUDING STATIONARY AND MOBILE SOURCES.**
- 6 REDUCE SINGLE OCCUPANCY TRIPS TO, FROM, AND WITHIN LAVA AIRPORTS.**
- 7 INCORPORATE SUSTAINABLE PLANNING, DESIGN, AND CONSTRUCTION PRACTICES INTO ALL AIRPORT PROJECTS.**
- 8 PROMOTE SUSTAINABILITY AWARENESS TO AIRPORT EMPLOYEES AND THE GREATER COMMUNITY.**
- 9 INTEGRATE SUSTAINABLE PRACTICES INTO INTERNAL POLICIES, BUSINESS PROCESSES, AND WRITTEN AGREEMENTS.**



Objective 1

INCREASE WATER CONSERVATION IN ALL AIRPORT FACILITIES AND FOR ALL OPERATIONS.

In 2009, Southern California continued to experience a severe drought. California water supply utility companies including Los Angeles Department of Water and Power (LADWP) mandated water restrictions for all of its customers. LAWA has used the following methods to increase its water conservation at its facilities:

- LAWA uses reclaimed water from the Westside Water Recycling Project (WWRP) to irrigate over 35% of its landscaped acres. Approximately 40.2 million gallons, or 123 acre-feet, of water is conserved each year with this reclaimed water.
- LAX and ONT’s landscape irrigation system is computer controlled.
- LAWA uses low-flow fixtures in their terminals and buildings.
- LAX’s car wash recycles its own water for reuse.

Using these practices as the starting point for water conservation, LAWA developed four targets to guide its use of reclaimed water and decrease its use of potable water, but, most importantly decrease its overall water use. The targets focus on these LAWA’s strengths.

- Increase by 50% landscaped acreage irrigated by reclaimed water by 2012.
- Increase by 10% use of non-potable/reclaimed water by 2010.
- Increase acres of native or drought resistant vegetation to 10% of landscaped acres by 2012.
- Reduce potable water use by 10% per passenger and/or cargo tonnage by 2012.

Using SPIMS, LAWA developed six specific initiatives to meet this overall objective and four targets. Since 2007, LAWA has made measurable progress in working on some of the objectives while others have proved to be not cost effective due to the changing economic conditions. More importantly LAWA has seen an approximately 14% decrease in potable water use from its baseline year of 2007. In 2007 LAWA used an estimated amount of 10.8 gallons of potable water per passenger. In 2009, LAWA used an estimated amount of 9.3 gallons of potable water per passenger. This decrease in water use has seen an approximate savings of \$500,000 in 2009.

Initiative Status

Initiative	Status
LAWA will work with affected agencies to extend the reclaimed water line to Manchester Blvd for use at the Westchester Golf Course.	<i>Work Complete</i>



Initiative	Status
LAWA will work with affected agencies to extend the reclaimed water line to Sepulveda/Imperial gateway and the Central Terminal Area.	<i>On hold due to cost and feasibility</i>
LAWA will plant native or drought resistant vegetation in all new landscaping projects.	<i>In progress</i>
LAWA will install centralized controls to monitor and regulate irrigation at ONT and VNY.	<i>ONT installed an EvapoTranspiration system with modules, sensors and rain gauges.</i>
LAWA will evaluate the feasibility of installing waterless urinals in LAWA buildings.	<i>LAWA plans to install waterless urinals in Tom Bradley International Terminal in early 2010 to evaluate feasibility.</i>
LAWA will evaluate the feasibility of installing ultra low flow urinals in LAWA buildings.	<i>In review due to staff workload</i>

ONT Irrigation

ONT Plumbing Shop purchased a Hunter EvapoTranspiration (ET) system in February 2009. The ET system has the potential to create a new, water-efficient irrigation program every day based on local weather conditions by measuring solar radiation, air temperature and humidity. In March 2009, Jose Rodriguez installed the ET modules, sensors and a rain gauge with the assistance from the ONT plumbing shop staff, including Ed Pastran, Lou Fuller and Dave Saldivar. In April 2009, Rodriguez, Irrigation Specialist, began to collect water usage information and monitor the effectiveness of the system. It is anticipated that the ET system data will reflect a significant amount of water conservation. After 12 months, Rodriguez will report on the water conservation efforts.



With the newly installed Hunter ET controller are Jose Rodriguez (L), Irrigation Specialist, Dennis Wilburn (middle) Sales Mgr for Hunter Ind. and Ed Pastran (R), ONT's Sr. Plumber.

**Objective 2*****INCREASE USE OF ENVIRONMENTALLY AND SOCIALLY RESPONSIBLE PRODUCTS.***

In 2009, the City Council of Los Angeles strengthened its commitment to purchasing environmentally preferable products by requesting all city agencies to develop an Environmentally Preferable Products Purchasing Program. In the Ordinance (180751), each agency must specify and purchase environmentally preferable products and services where criteria have been established by governmental or other widely recognized and respected third-party authorities (e.g., Energy Star, Green Seal, EPA Recycled Materials Advisory Notice (RMAN) Purchasing Guidelines, Federal Electronic Product Environment Assessment Tool (EPEAT) program guidelines for electronics, State Agency Buy Recycled Campaign (SABRC)). Moreover, each agency must submit to the city an annual report detailing its actions to purchase environmentally preferable products. LAWA has a 10+ year history of promoting the use of environmentally and socially responsible products in its operations. LAWA believes the use of recycled content products is important since it recycles a majority of its wastes. Therefore, LAWA is committed to increasing its use of environmentally and socially responsible products. LAWA has developed the following current practices:

- LAWA includes green procurement language in custodial chemical and paper product RFPs.
- LAWA purchases 30% recycled content paper for its printers and copiers.
- LAWA purchases recycled content paper for its paper towels, toilet seat covers and toilet paper.
- LAWA purchases 30% post consumer recycled content plastic trash bags.

To further its successful program of using environmentally and socially responsible products, LAWA developed the following targets:

- Develop and implement a Sustainable Procurement Program by January 2009.
- Increase use of recycled content products as outlined by the City Council.

Green Procurement

LAWA developed procurement language to purchase environmentally and socially responsible products for custodial products in 2008. With this language included in Requests for Proposals and Requests for Bids, LAWA purchased 100% post-consumer recycled content paper towels and toilet paper for all of its restrooms at LAX terminals and offices. The purchasing of 100% post consumer paper towels exceeds the 2008 success of purchasing 40% post consumer content paper towels. LAWA purchased approximately 700 tons of post consumer recycled paper. Moreover, LAWA purchased 30% post-consumer recycled content paper for its toilet seat covers.



Initiative	Status
LAWA will develop and receive approval of a sustainable procurement program.	<i>Completed for custodial products. Comprehensive program in progress.</i>
LAWA will specify only purchases of copiers and duplex printers, where feasible.	<i>Completed.</i>
LAWA will convert hand soap used throughout LAWA facilities to an environmentally friendly alternative, where feasible.	<i>Completed at LAX and ONT</i>
LAWA will expand its monitoring and tracking of recycled content product use.	<i>Using existing data management program.</i>

Procurement language also requested that all cleaning products be either certified by “Green Seal” – an independent non-profit organization that develops environmental standards for cleaning and other consumer products – or “Environmental Choice.” – a green labeling program created by Environment Canada. With this language, all foam soap, general cleaners and glass cleaners purchased by LAWA are Green Seal products.



Objective 3

INCREASE RECYCLING AND SOURCE REDUCTION EFFORTS AT ALL FACILITIES AND FOR ALL OPERATIONS.

The City of Los Angeles Ordinance 174706 pledged to divert 70% of its solid waste from landfills and incinerators by 2020. This goal was set to minimize the need to build new landfills and save energy by increasing recycling. Recycling is an important initiative in LAWA’s drive to be a sustainability leader. LAX has an extensive recycling program that recycles paper, plastic, glass, metals, wood/pallets, green waste, tires, food, construction debris, oil, textiles, toner cartridges and e-waste. This successful program, headed by Tom McHugh of the Construction and Maintenance (C&M) Division, has been in place since 1990. In its first year, LAX recycled approximately 3,000 pounds of solid waste. LAWA recycled approximately 9,000 tons of solid waste in 1992 when LAX implemented its Source Reduction and Recycling Program. In 2009, LAX recycled approximately 20,000 tons of solid waste. These amounts are consistent with the quantities recycled in 2007 and 2008.

Over the years, LAWA has increased its recycling scope by providing free access for tenants to its recycling programs and by identifying new materials to recycle. In addition, LAWA has recycling containers for paper, plastic and metal in the terminal areas. Since 2004, LAX’s waste diversion rate increased from 54% to 67%. Major LAWA programs to meet this waste diversion rate include:

- LAX and ONT have developed relationships with tenants, concessionaires and staff members to increase awareness of recycling programs.
- LAWA has an extensive construction and demolition debris recycling program. The LAX airport modernization program has recycled extensive amounts of construction debris during the South Airfield Improvement, Tom Bradley International Terminal Modernization and Crossfield Taxiway Projects.

The following LAWA targets show LAX’s commitment to 70% waste diversion goal by setting the 70% target ahead by five years and expanding its outreach to additional tenants.

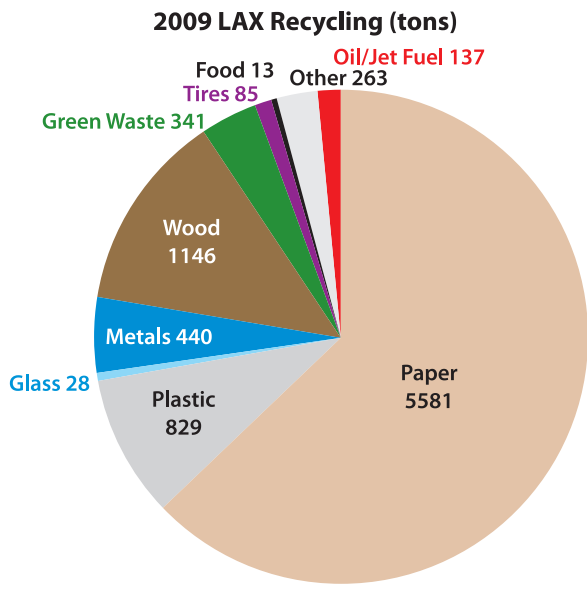
- Divert 70% of waste from landfill disposal by 2015 (using 1998 baseline).
- Expand in-flight recycling pilot programs to six airlines by December 2009.

Drawing upon LAWA’s robust source reduction program, LAWA developed six specific initiatives and two targets.

Initiative	Status
LAWA will develop an off-site composting facility for food waste.	<i>On hold due to cost and feasibility. Planned for implementation of coffee grounds composting in 2010.</i>
LAWA will develop new programs to collect recyclables from passenger areas.	<i>In progress. Installed new recycling containers in the terminals.</i>
LAWA will work with airlines to expand airline recycling program.	<i>Set up programs with Delta and Continental. Working with United, Alaska and Southwest.</i>



Initiative	Status
LAWA will continue its development of a database inventory to track all material	<i>In progress. LSAG recommends that all contractors develop and implement plans to track material flows for recycling.</i>
LAWA will educate employees to decrease use of disposable beverage containers and utensils.	<i>In progress. Environmental Connections, the newsletter of the Environmental Services Department includes information on recycling ideas. New Employee Orientation includes information on recycling at LAWA.</i>
LAWA will increase recycling of batteries, toner cartridges, computers, light bulbs, and other equipment.	<i>In progress. Environmental Connections, the newsletter of the Environmental Services Department includes information on recycling ideas.</i>
LAWA will increase and encourage use of electronic documents.	<i>In progress. All modernization projects use Prolog to minimize paper copies of construction documents. The LSAG recommends that all contractors maximize the use of electronic documents.</i>



The LAWA Source Reduction and Recycling Program provides recycling to their tenants and passengers at no charge and assists them with setting up their own recycling programs. Through these actions, LAX recycled and reused more than 67% of the trash it generated in 2008. Since 2004, ONT's average diversion waste has been 59%. This diversion rate has held steady at ONT.

LAX Waste Diversion

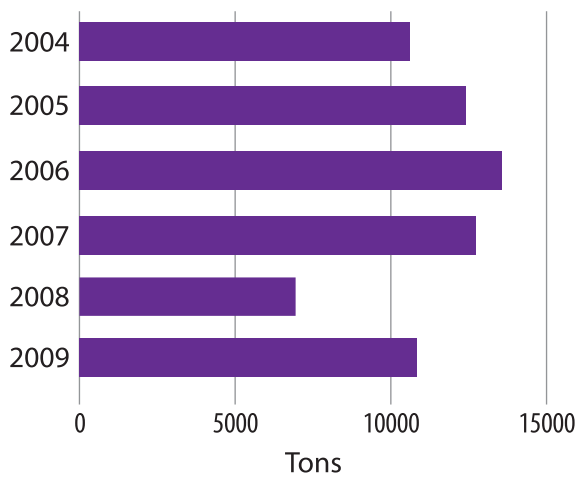
Recycled Materials (tons)	2005	2006	2007	2008	2009
Paper	2,567.72	2,087.90	3,034.25	9,735.03	5,581.38
Plastic	997.06	1,041.12	693.99	690.12	829.29
Glass	9.24	12.95	5.46	22.53	28.14
Metals	391.41	480.96	396.82	645.05	440.10
Wood/Pallets	2,041.71	2,023.46	3,509.78	1,221.41	1,146.21
Green Materials	312.00	405.05	53.45	810.00	341.00



Recycled Materials (tons)	2005	2006	2007	2008	2009
Tires	232.45	91.21	80.02	158.72	85.16
Food	28.73	46.39	56.90	76.05	13.10
Construction Debris/pmb	12,365.00	13,517.69	12,743.57	6,911.43	10,825.09
Other	183.56	155.56	334.55	432.67	400.01
Total Recycled Materials	19,398.89	19,862.30	20,908.80	20,703.01	19,689.48
Total Refuse Generation	33,737.00	33,465.00	33,857.00	32,423.00	30,590.00

LAWA Construction and Demolition Debris Recycling

Construction Debris Recycling



LAX performed extensive modernization of its facilities. These activities produce large amount of construction debris. Since 1997, LAX has recycled close to 119,000 tons of construction debris. More than 75% of the construction and demolition debris from the LAX Tom Bradley International Terminal Renovation Project has been recycled or salvaged. In the past, In the South Airfield Improvement Project, LAWA recycled almost 100% of the concrete and other materials from the demolition of Runway 25 Left to construct a new runway and center taxiway. The same ambitious goals are planned for the remaining LAX Modernization projects.



Objective 4

REDUCE ENERGY USAGE AND INCREASE USAGE OF GREEN POWER AT ALL AIRPORT FACILITIES AND IN ALL OPERATIONS.

Fossil fuel usage is tied to the emissions of greenhouse gases, the continued dependence on imported oil from the Middle East and other countries and the emissions of air pollutants into the atmosphere. LAWA takes a two pronged approach to these issues. First, LAWA has a commitment to the use of renewable or green power. Second, decreasing the amount of oil and natural gas used at its properties is important. In 2009, LAWA has also taken its first steps into developing its own renewable energy sources for the Southern California region.

Specific actions that LAWA has taken include:

- LAX's Central Utilities Plant (CUP) cogenerates steam to heat and air condition LAX's passenger terminals and offices.
- LAWA trains its staff to turn off lights at the end of each day.
- Desktop computers and monitors are automatically shut off each night.
- LAWA installs energy efficient equipment when replacements are required.
- ONT shuts down one runway most nights to save energy necessary to keep it properly lit. This practice saved ONT approximately \$10,000 in energy costs in 2009.

LAWA set two targets for this objective. They are:

- Increase green power use to 25 percent by December 2008.
- Reduce energy use by 10 percent per passenger and/or cargo tonnage by 2010.

LAWA successfully completed the green power consumption target in 2008. In October 1999, the Board of Airport Commissioners (BOAC) adopted a resolution establishing LAWA's participation in the Los Angeles Department of Water and Power's (LADWP) "Green Power for LA" program to purchase electricity from renewable resources. These sources allow LAX to lower its criteria and toxic air pollutants and greenhouse gas (GHG) emissions. In 2008, LAWA purchased 42 million kilowatt hours (kWh) of green power, which is equivalent to 25% of LAWA's total electricity use in 2008. These renewable resources include wind turbines and hydroelectric power. For these efforts, LAWA was ranked 12th by the U.S. Environmental Protection Agency (USEPA) Green Power Partnership Program in the 2009 Top 20 Local Government List. LAWA continued to meet this target in 2009.

To reduce its energy use, LAWA continued to develop and implement the seven initiatives. With the continued commitment of both the Construction and Maintenance Division and the Information Technology Division, LAWA decreased its per passenger energy consumption by 7% in 2009 from its base-line year of 2007. This decrease allowed LAWA to save approximately \$150,000 in energy costs for 2009.

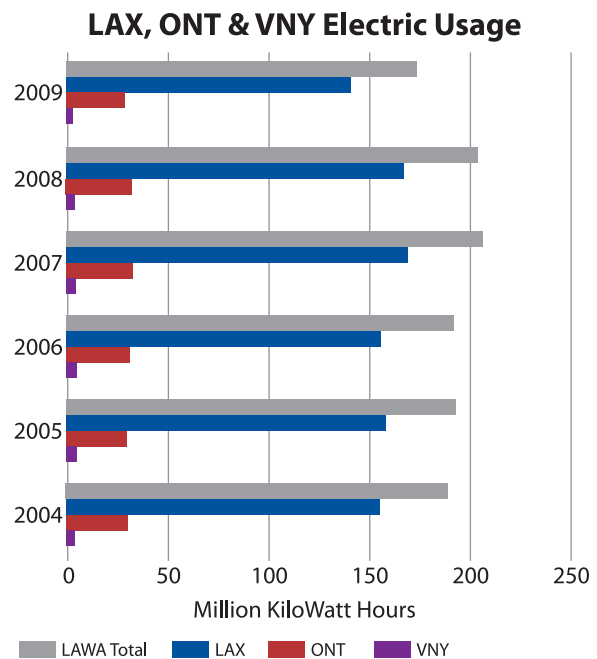


Energy Conservation and Green Power Current Initiatives

Initiative	Status
LAWA will purchase green power from LADWP.	<i>Completed. LAWA purchases 25% green power from DWP</i>
LAWA will install energy efficient light fixtures when changing burned out bulbs.	<i>Completed at LAX and ONT</i>
LAWA will install new or increase efficiency of heating and cooling equipment.	<i>80% Complete</i>
LAWA will purchase more energy efficient computer servers and consolidate existing servers.	<i>60% Complete</i>
LAWA will install energy efficient variable speed motor loads during replacement.	<i>In progress.</i>
LAWA will replace older building-related process energy systems and equipment with energy efficient systems.	<i>In progress..</i>
LAWA will install variable frequency fan drives, where needed.	<i>In progress.</i>

Electricity Usage

Of the seven initiatives for energy, LAWA has identified six initiatives to decrease energy consumption. In 2009, LAWA successfully completed the conversion of incandescent light bulbs to compact florescent light (CFL) bulbs at ONT and LAX. CFLs use less electricity and have a longer use life than incandescent light bulbs. LAX Construction & Maintenance Division completed the conversion in 2009. Outside the buildings, LAWA has installed light-emitting diodes (LEDs) on runways, signs and other outdoor lighting, where feasible.



LAWA continuously upgrades and performs preventive maintenance on its air-handling equipment. As LAWA upgrades and replaces its air-handling units, LAWA installs units with variable frequency drives and soft-start controls which are more energy efficient than the existing equipment. Since these drives do not operate at full load at all times, the energy savings can be substantial. As of May 2009, LAWA Construction and Maintenance Division had converted 80 percent of fan drives.

Computers and servers are a large energy user at LAWA. The use of more energy efficient computer servers and the consolidation of existing servers continue at LAWA. Updating and consolidating servers is a process LAWA continuously works on



to achieve higher efficiency. As of May 2009, 60 percent of computer servers were replaced and other servers were consolidated using VMware. LAWA will continue to replace computer servers with more efficient units, as needed.

Moreover, LAWA has set up personal computers and monitors to automatically shut down each night. This practice saves energy and money since computers are not kept running during non-business hours. It is estimated that automatic shutdowns may save up to \$50 per computer per year in energy costs.

LAX Modernization

As part of its modernization of LAX, LAX is upgrading its elevators, escalators and moving walkways. Many elevators, escalators and moving walkways have reached or exceeded their average 25-year operational lifespan. The elevator/escalator modernization project will replace and rehabilitate deteriorated equipment and systems to meet current standards of safety and operations requirements. In addition, the new equipment will be more energy efficient. Beginning in May 2009, LAWA began the first phase which will focus on the 65 units most in need of replacement/refurbishment in Terminals 2, 3, 5 and 6.

Terminals 1 and 6 have taken on a brighter, more modern look as the result of a refurbishment program now underway throughout the LAX Central Terminal Area. From new, lighter color schemes to the use of energy efficient fixtures, Terminals 1 and 6 have received a first-class upgrade with:

- **Restrooms:** all restrooms were remodeled and upgraded with new water efficient fixtures, tiles, flooring and other finishes; in Terminal 1, a new restroom for use by families or the physically challenged was also added.
- **Lighting:** lamps and light fixtures were upgraded to produce more light while consuming less energy.
- **Ceilings:** stained, discolored tiles and skylights were replaced. The skylights reduce the need for additional lighting.
- **Flooring:** travertine tile throughout the terminal was refinished to restore its original color; stained, damaged floor tiles in the baggage claim area were replaced; new carpeting from recycled content materials reflects the brighter color palette.
- **Walls:** interior and exterior walls were painted; dark wall coverings were replaced with tiles that complement the lighter color scheme.
- **Elevators:** interiors of passenger elevator cabs were remodeled.



LAX replaced the existing lighting with high-efficiency fluorescent lighting, reducing energy consumption while producing more light. Tinted skylights reduce the building's heat load and cut air conditioning energy usage. Low-flow plumbing fixtures in restrooms reduce water consumption. New floor tiles containing a high percentage of recycled material were used in the baggage claim areas.



Subsequent phases will include the remaining 220 units LAX's nine domestic terminals. Elevators and escalators in the Tom Bradley International Terminal were part of the terminal's major renovation.

In addition to the escalator and elevator modernization, LAX began planning for the replacement of the Central Utilities Plant (CUP). The new CUP will be more energy efficient to heat and cool the Central Terminal Area.

In November 2009, LAWA expanded its two pronged approach to include the potential generation of solar power at its Palmdale facility. BOAC approved a three year contract with Jones Lang LaSalle to assist in the development of a process to build a renewable energy project on its 17,500 acre land holding in Palmdale, California. This project has the potential to assist the City of Los Angeles to meet its goal of increasing use of renewable energy to 35% by 2020.

Natural Gas Usage

In 2009, ONT moved the administration offices from Terminal 1 – an older building with inefficient air-handling equipment – into a new, more energy efficient building. A portion of Terminal 1 is still used by the USO and PCI – the parking lot management company. LAWA also continues to use a small conference room periodically for meetings and training. In addition, the terminal is used for special events and movie and television filming. The areas of Terminal 1 that are still used have stand-alone HVAC systems so the entire terminal does not have to be kept at a comfortable temperature. These changes saved ONT \$145,341 in natural gas costs in 2009.



Objective 5

REDUCE EMISSIONS FROM ALL OPERATIONS INCLUDING STATIONARY AND MOBILE SOURCES.

With the San Gabriel, San Bernardino and Santa Rosa Mountains ringing the greater Los Angeles Basin, pollutants from airplanes, cars, power generation and maintenance operations are trapped in the region. These harmful pollutants include particulates from diesel engines, smog producing chemicals and greenhouse gases (GHGs) from the burning of fossil fuels that can impact climate change. LAWA takes an active role in reducing air emissions. Specific actions include:

- LAWA tracks criteria pollutant emissions at LAX and VOC emissions at ONT.
- LAWA has an aggressive alternative fuel vehicle program.
- LAWA has performed a baseline study of its greenhouse gas emissions.
- ONT has converted all ground service equipment (GSE) to electric power.
- LAX continues to evaluate strategies and options for converting ground service equipment to lower emitting equipment.
- LAX has a CNG stations for LAWA vehicles.

LAWA set the following targets to address reducing each of these pollutants:

- Reduce GHG emissions levels to 35 percent below 1990 levels by 2030.
- Reduce VOC emissions 10 percent by 2010.
- Demonstrate Hythane powered vehicles by 2009.
- Convert 100 percent of LAWA fleet vehicles to alternative fuel vehicles (AFVs) or comparable emission vehicles by 2015.
- Convert 50 percent of airport shuttles and 10 percent of taxis to AFVs by December 2010.
- Convert 100 percent of diesel-based ground service equipment to electrical equipment or to the cleanest technology available by 2015.

LAWA has been a leader in the development and implementation of programs to reduce its emissions. As an example, its alternative fuel vehicle programs began in 1993. Alternative fuels currently in use by LAWA include liquefied natural gas (LNG), compressed natural gas (CNG), hybrid electric, solar and propane. LAWA developed nine initiatives to continue to show its leadership in emissions reduction.

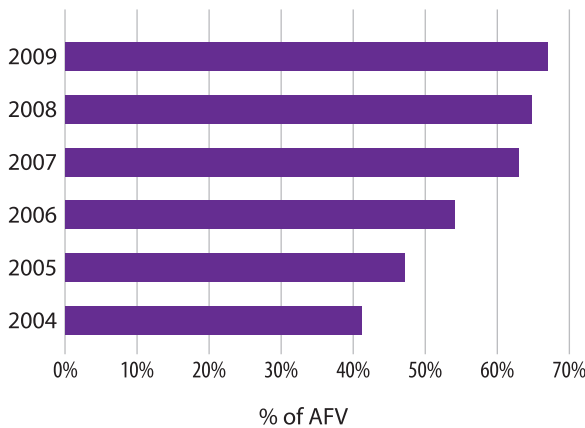
Initiative	Status
LAWA will specify low VOC products.	<i>In progress</i>
LAWA will establish and enforce a commercial vehicle idling policy.	<i>In progress</i>



Initiative	Status
LAWA will continue its program to upgrade electric power and install pre-conditioned air to LAX gates.	<i>Electrified gate installation at LAX and ONT complete. Pre-conditioned air installation at ONT complete. 55% completion at LAX.</i>
LAWA will perform a demonstration of Hythane fuel to power LAWA fleet vehicles.	<i>Initiative dropped due to feasibility and cost issues.</i>
LAWA will work with ONT taxi concessionaires to develop a program to require AFVs for taxis.	<i>In progress. Completion date July 2010.</i>
LAWA will continue to initiate a GSE conversion policy.	<i>In progress.</i>
LAWA will install quick charging stations at all terminals and cargo areas.	<i>None installed in 2009 due to economic conditions</i>
LAWA will work with ONT shared ride vans (PSC) concessionaires to develop a program to require alternative fuel vehicles for shared ride vans.	<i>In progress.</i>
ONT will provide an on-airport turnkey CNG fueling station.	<i>In progress.</i>

LAWA's fleet is the largest AFV airport fleet in the nation and includes over 650 AFVs. Currently at LAWA, over 67 percent of its fleet vehicles and equipment are powered by alternative fuels which is a 2% increase over 2008. Additionally, 100 percent of the LAX courtesy shuttle fleet is powered by natural gas.

LAWA Fleet Alternative Fuel Vehicles



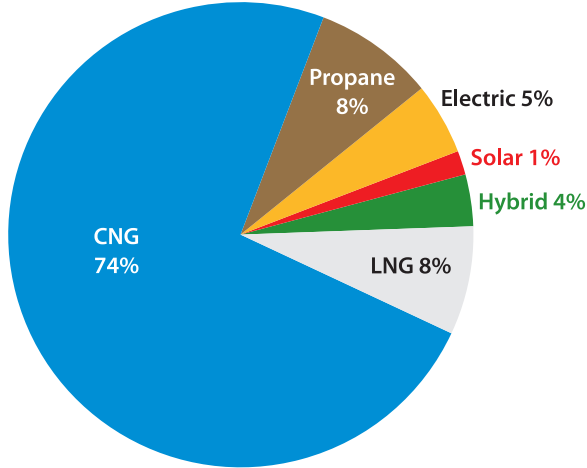
LAWA has an Alternative Fuel Vehicle Requirement Program that applies to all on-road vehicles weighing 8,500 pounds gross or larger. This program is currently in effect and requires the conversion of car rental shuttles, trucks and other large vehicles in use at LAX. LAWA has taken a leadership role to meet this commitment and has met the mid-way milestone for vehicles over 8,500 pounds. The program's priority has been on larger vehicles that make many trips daily to LAX including rental car shuttles, hotel/motel shuttles and off-airport parking lot shuttles. In 2009, LAX rental car shuttle, hotel/motel shuttle and off-

airport parking shuttle fleets were 59.6 percent alternative fuel vehicles. The rental car shuttles have achieved an overall compliance rate of 85.2 percent with seven of the ten rental car companies at 100 percent. LAWA hopes to expand the program to include more off-airport parking lot shuttles.

ONT owns and operates 48 CNG-powered vehicles, which represents approximately 25 percent of the airport's total fleet. In addition, ONT plans to acquire 17 new CNG passenger courtesy shuttle buses within the next two years.



2009 LAWA Fleet Alternative Vehicle Fuel Type



Because of changes in alternative fuel technology, LAWA decommissioned its hydrogen station as a demonstration station, because it was only capable of providing hydrogen at a pressure of 5,000 pounds per square inch (psi). While current hydrogen vehicles require hydrogen to be delivered at 10,000 psi. The demonstration hydrogen vehicles were removed from the LAWA fleet and LAWA decided not to test Hythane vehicles. LAWA decided to focus on CNG and LNG vehicles, as they are readily available and economical to purchase. Moreover, LAWA already has the infrastructure to fuel them.

In 2009, the focus on CNG vehicles expanded to ONT. ONT received approval in September 2009 to develop a CNG fueling station like the one at LAX. The CNG station will be open to ONT and airport tenants and the community, including commercial fleets, consumer vehicles, transit agency buses and local school district buses. The station will feature 24-hour video surveillance, a card reader and training video, 3,000 and 3,600 psi fill options, dispenser hose signs, landscaping and a lighted canopy. The development of this CNG fueling station is projected to save ONT over \$1.8 million over the next 10 years in preferential pricing for LAWA and its passenger courtesy shuttle bus fleet. Construction begins in July 2010 with a scheduled opening date in late 2010.

LAWA continues to decrease emissions associated with ground transportation to and from ONT. LAWA developed a program requiring taxis to convert to AFVs. With the award of the taxi concession agreement at ONT in 2007, the ONT Landside Operations Division has been monitoring the procurement of alternative fuel vehicles. Beginning July 1, 2010 only taxis using CNG or other alternative fuels can pick up passengers at ONT. Concessionaires will continue to submit quarterly reports informing LAWA on their progress in regard to procuring CNG vehicles. In addition, ONT is attempting to develop a program that would require shared ride vans to be AFVs. The current Commercial Ground Transportation Non-Exclusive License Agreement LAWA has with shared ride van companies does not stipulate a direct requirement for AFVs. However, ONT is working on a plan that would require operators of large fleets of shared ride vans to buy CNG vehicles when they have to replace old vehicles.

Ground Service Equipment

Ground service equipment (GSE) includes tugs, baggage loaders, catering trucks and fueling vehicles. At ONT, 100 percent of tenants' GSE are electrically powered. LAWA continues to evaluate strategies and options for GSE emission reductions. Eight Air Transport Association of American, Inc. (ATA)



member airlines have signed an agreement with Rentech, Inc. and Aircraft Service International Group (ASIG) to purchase up to 1.5 million gallons per year of renewable synthetic diesel fuel for use in GSE at LAX beginning in late 2012. The renewable fuel is produced primarily from urban woody green waste, such as yard clippings. It is expected to have a low carbon footprint and minimal particulate and other emissions while meeting or exceeding all applicable fuel standards.

Gate Electrification

In order to reduce the harmful pollutants from the combustion of jet fuel, LAWA continues to upgrade gates to supply electric power and pre-conditioned air to airplanes during loading and unloading. By furnishing gates with these amenities, planes are able to shut off auxiliary power so they do not burn jet fuel while sitting at the gate. As of 2005, 100 percent of the gates at ONT and LAX have electric power which allows planes to shut off auxiliary power. In addition, 100 percent of gates at ONT and 55 percent of gates at LAX use pre-conditioned air.

Quick Charge Stations

Prior to the economic downturn, LAWA installed quick charge stations at gates and cargo areas to promote the use of electric vehicles on a phased basis. However, the severe economic conditions have continued to create uncertainties for airlines, which have prevented the installation of any new charge stations in 2009. As the economic conditions improve, LAWA will review the status of this initiative.

Greenhouse Gas Emissions

Under Mayor Villaraigosa's Green LA Plan, LAWA committed to reducing its GHG emissions to 35 percent below its 1990 levels by 2030. In 2008 and 2009, LAWA performed a GHG inventory to determine its baseline GHG emissions. Its reduction goals are in the following table. LAWA will be developing a mitigation plan for reducing its GHG emissions.

Reduction Goals

Category	Direct and Indirect Emission (CO ₂ e, metric tons)				
	LAX	ONT	VNY	Palmdale	Total
1990 Emissions	111,861	8,858	775	1,139	122,632
2030 Emissions	375,968	22,652	1,819	1,179	401,617
Emission 35% BElow 1990	72,709	5,757	504	740	79,711
Reduction Required	303,259	16,894	1,315	439	321,907



Objective 6

REDUCE SINGLE OCCUPANCY TRIPS TO, FROM AND WITHIN LAWA AIRPORTS.

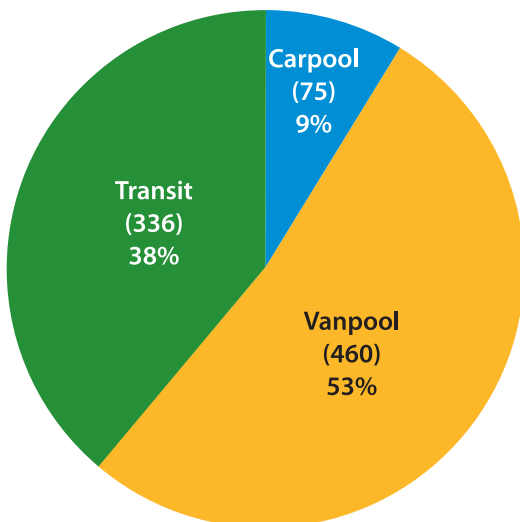
Congestion in and around LAWA’s airports affects the air quality and the quality of life of the millions of passengers, the tens of thousands of employees and the millions of community members who live around the four LAWA properties. Therefore, LAWA has taken specific actions to mitigate these impacts. The actions include:

- LAWA employees participate in the Rideshare Program.
- LAX has a cafeteria for LAWA staff and tenants.
- LAX has FlyAway Program.
- ONT has a Consolidated Rental Car Facility.
- LAX operates a Hotel Shuttle and Rental Car Consolidation Program.
- LAWA works cooperatively with LADOT and other transportation agencies to improve off-airport streets and intersections to reduce congestion.
- LAX has an extensive Traffic Control Program Traffic Operations Center to facilitate traffic flow in the CTA.
- LAX has a cell phone waiting lot.
- The LAWA website has traffic alerts for LAX and a link to LADOT real-time traffic.

LAWA has set five targets for this objective. They are:

- Increase Rideshare participation to 30 percent by 2010.
- Add six new FlyAway locations/stations by 2015.
- Build the LAX Consolidated Rental Car Facility by 2015.

Rideshare Program Participants



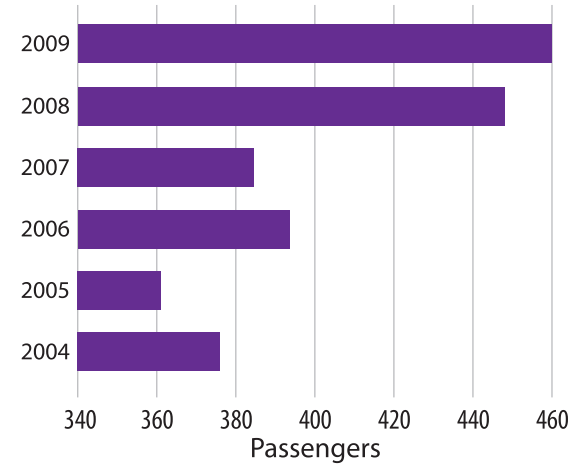
- Require LAX off-site airport shuttles to reduce their trips by 35 percent from a 2004 baseline by 2008.
- Develop Centralized Delivery Facility at LAX by 2010.

Rideshare Program

LAWA’s Rideshare Program has eliminated eight billion pounds of air pollutants and over seven million vehicle miles traveled since its inception, which has led to reduced congestion during peak morning and evening commuting hours at the LAWA airports. In addition, the U.S. Environmental Protection Agency (EPA) considers the program to be one of the most comprehensive programs offered by an employer in Southern California. It also is part of the EPA’s Best Workplaces for Commuters Program, an innovative, voluntary business-government program that distinguishes and provides national recog-



Van Pool Passengers



dition to employers offering outstanding commuter benefits. To be part of this program, employers must meet the EPA’s National Standard of Excellence in commuter benefits.

As of May 2010, the Rideshare Program included 871 participants, which is approximately 24 percent of LAWA’s 3,593 employees. There are 64 vanpool groups and 30 carpools. For the vanpooling program, LAWA provides the commuter van and pays for maintenance and fuel for each vanpool. Participants pay a monthly fare to participate in the vanpool. Although investigating a smaller number of vanpool passenger was one of the initiatives, LAWA will put this initiative on hold as most of the vanpools have

between 10 and 20 people on the wait list. The largest impediment to expanding the vanpool number is the inability, both financially and contractually, to order additional vanpool vehicles.

Expanding Bicycle Facilities

LAWA provides bike lockers, showers and a “Bike Valet” service for LAWA staff who ride their bikes to work. Currently bike lockers are in areas where they are most needed and a new bike rack was installed in June 2009. However, there currently is a lack of funds for additional bicycle storage facilities. Every year, LAWA promotes Bike to Work Week with free breakfast, T-shirts and other giveaways for staff who take part in the week’s events. In 2009, 59 riders participated in the Bike to Work Week.

Initiative	Status
LAWA will investigate the feasibility of reducing the number of LAWA staff to start a vanpool.	<i>On hold - not currently the limiting factor.</i>
LAWA will investigate the feasibility of working more flexible work schedules, including telecommuting options.	<i>On hold due to feasibility and costs.</i>
LAWA will expand its bicycle facilities for easier storage of bicycles.	<i>New bike rack installed.</i>
LAWA will begin to develop a video conferencing/Net Meeting system to minimize travel of LAWA staff to different airport offices.	<i>In progress.</i>
LAWA will open a cafeteria near LAX for LAWA staff.	<i>Complete.</i>
LAWA will continue to develop FlyAway shuttles to LAX.	<i>In progress. Irvine shuttle begins in 2010.</i>
LAWA will investigate improving peak scheduling of the FlyAway shuttles for more convenient use of the shuttles.	<i>In progress.</i>
LAWA will continue to plan the Consolidated Rental Car Facility at LAX.	<i>In progress.</i>



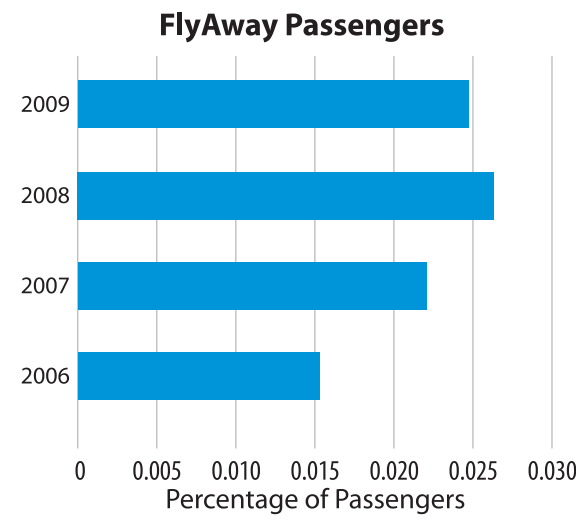
Initiative	Status
LAWA will work with off-airport parking lots to develop programs to reduce the number of trips around LAX's CTA.	<i>To begin in 2010.</i>
LAWA will increase the quantity of traffic information on www.lawa.org.	<i>In progress.</i>
LAWA will develop a Centralized Delivery Facility at LAX.	<i>On hold due to lack of facilities and costs.</i>
LAWA will track and make more efficient use of pool cars.	<i>In progress</i>

Video Conferencing/Net Meetings

Because of the myriad locations of LAWA staff, the implementation of a video-conferencing system will reduce the number of vehicles miles traveled by LAWA staff during the work day. In 2009, LAWA implemented video conferencing capability for one-on-one meetings with the newly installed Gig-e network. With this system, LAWA hopes to minimize the time to travel between buildings and airports as well as the miles traveled during the workday. Moreover, LAWA has the capability to support large video conferences with the purchase of cameras, monitors and microphones for the conference rooms. However, due to the current economic conditions, LAWA has put their evaluation to purchase additional video and audio equipment for specific conference rooms on hold.

FlyAway Program

LAWA designed the FlyAway Program to provide passengers with an alternate, yet convenient, way to reach LAX while at the same time reducing the number of single occupancy trips to and from LAWA airports. Passengers use dedicated, clean-fuel, high-occupancy buses to reach LAX from the FlyAway locations,



which aids in reducing ground traffic congestion and vehicle emissions around LAX and the region. In November 2009, LAWA opened a fourth FlyAway station, which offers shuttles from Irvine in Orange County to LAX. It is estimated that the Irvine Station could serve as many as 72,000 passengers during its first year of operation. Four FlyAway shuttles from Van Nuys, Union Station, Westwood and Irvine bring passengers to LAX. In 2009, more than 1.4 million passengers used the FlyAway shuttles at the four stations. Although FlyAway ridership in 2009 was down, the percentage of passengers did not decrease below 2007 levels.



In addition to the fourth station, LAWA continuously monitors and adjusts FlyAway schedules to improve peak scheduling and convenience of use of the shuttles. During 2009, LAWA cut service hours for the Van Nuys and Westwood FlyAway stations, which netted a total of \$88,000 in savings per month.

Consolidated Rental Car Facility

Since 1999, ONT has operated a Consolidated Rental Car Facility (ConRac) that houses eight rental car companies with tram service from the terminals to alleviate traffic congestion on the terminal roadways. In 2009, LAWA kicked off its plan to build a LEED Gold ConRac by sponsoring a design charrette.

LAX Shuttle Trip Reduction

Three types of shuttles transport LAX passengers to area hotels, rental car facilities and parking lots. LAWA has been developing and implementing programs to reduce the number of each type of shuttle in the Central Terminal Area. In June 2006, a mandatory Hotel Shuttle Trip Reduction Program began. The program planned to ultimately reduce shuttle trips to 35 percent below the 2004 baseline. Additionally, the program specified fines for hotels that exceeded their allowed number of trips per year. The Hotel Shuttle Trip Reduction Program has been tremendously successful, reducing the number of 2009 trips by 64 percent below 2004 levels.

In January 2003, the Board of Airport Commissioners (BOAC) approved on-airport concessions for ten rental car companies at LAX. These ten concessionaires are the only firms permitted to provide curbside pickup and drop-off services at passenger terminals. The program requires on-airport rental car operators to reduce the number of monthly courtesy vehicle trips by at least 20 percent below 2004 numbers. To achieve this goal, LAWA implemented the Rental Car Traffic Movement Plan in 2005. The plan allots each rental car company a certain number of courtesy trips to the airport in a year. If the allocated number of trips is exceeded, the company is issued a fine, similar to the hotel shuttle program. The rental car companies have made a 30 percent reduction in the number of rental car shuttle trips below the 2004 baseline.

LAX has not seen a decrease in the number of parking lot shuttles. Instead, the number of parking lot shuttle trips have increased by 23 percent over the 2004 baseline. Overall, the total number of shuttle trips by each type of shuttle has decreased by approximately 24 percent over 2004 numbers. The total number of trips in 2009 has decreased by over 500,000 compared to 2004. This decrease amounts to over 1.5 million fewer miles traveled in 2009.

LAX Traffic Mitigation Measures

LAX operates a Traffic Operations Center that consists of closed circuit television cameras that view real-time traffic flows within the Central Terminal Area



(CTA). The cameras allow staff to identify unusual incidents that are causing traffic delays and determine whether to adjust the traffic signals. LAWA also mitigates congestion with restrictions on construction trucks and employee traffic during peak traffic periods.

In addition, LAWA works cooperatively with the Los Angeles Department of Transportation (LADOT) and other transportation agencies to improve off-airport streets and intersections to mitigate traffic impacts created by LAWA projects. For example, the intersections of Main Street/Imperial Highway and Pershing Drive/Imperial Highway are to be widened to create additional lanes for traffic. These improvements are mitigation measures for the construction of the Bradley West Terminal project. LAWA worked with LADOT and the City of El Segundo on these improvements. Other off-airport improvements related to the Bradley West Terminal project will be constructed as the level of international travel increases.

LAX broadcasts airport traffic information from the Traffic Operations Center on radio station AM 530 and on www.lawa.org/lax/AiRadio.cfm. The radio station provides real-time information on traffic and availability of on-airport parking. In addition, LAX utilizes portable and fixed electronic message boards to provide real-time information so that motorists can make knowledgeable driving decisions. Eight portable changeable message signs are available at LAX during peak travel times or for special occurrences. The quantity of traffic information on www.lawa.org has increased to traffic alerts, a link to LADOT real-time traffic maps and airport-specific maps showing the current lane closures and detours in the LAX area.



Objective 7

INCORPORATE SUSTAINABLE PLANNING, DESIGN AND CONSTRUCTION PRACTICES INTO ALL AIRPORT PROJECTS.

LAWA finalized Version 5.0 of its LAWA Sustainable Aviation Planning, Design and Construction Guidelines (LSAG) in early 2010. LAWA developed LSAG to be the keystone of its program to design and construct facilities that are sustainable. For new vertical projects, LAWA requires projects to meet LEED® standards. For horizontal projects, all new projects will be required to meet minimum LSAG standards. Version 5.0 will enhance the following current practices:

- LAWA requests that a LEED® Accredited Profession be involved with planning, design and construction projects.
- LAWA incorporates green standards into LAWA’s planning, design and construction projects.

With the inclusion of LSAG and LEED® standards in LAX Modernization, LAWA has made significant progress in meeting the following targets:

- Implement the LAWA Sustainable Airport Planning, Design and Construction Guidelines (LSAG) for all projects begun on or after February 2008.
- Incorporate green standards into all aspects of LAWA’s planning, design and construction processes by 2009.

Sustainable Airport Planning, Design and Construction Guidelines (LSAG)

In January 2007, the Board of Airport Commissioners (BOAC) committed LAWA to incorporate the highest possible LEED® standards in future design and construction projects at LAWA’s properties. LAWA now requires new terminal facilities to be designed to achieve LEED® Silver Certification. In addition, LAWA’s development and implementation of LSAG strengthens its commitment to become the “global leader in airport sustainability”. LASG Version 5.0 is available on LAWA’s website.

Initiative	Status
LAWA will prepare Green Specifications for use in conjunction with LSAG, which will apply to all projects.	<i>On hold since LAWA wants to maximize flexibility for projects.</i>
LAWA will incorporate the Green Standard “New Green Book” into tenant developments.	<i>On hold since LAWA wants to maximize flexibility in tenant requirements.</i>
LAWA will require LEED® APs on planning, design and construction projects, where applicable.	<i>Completed.</i>
LAWA will train LAWA employees on the correct use of LSAG.	<i>Training developed; planned for mid-2010.</i>
LAWA will provide a workshop for all interested tenants and consultants on the requirements of LSAG.	<i>Training developed; planned for mid-2010.</i>



LSAG provides a comprehensive set of airport specific performance standards that consider the unique opportunities and obstacles that arise during typical airport projects when incorporating sustainability. The guidelines include performance standards for planning, design and construction activities that integrate sustainability strategies into the project work.

LSAG applies to projects that involve general construction and maintenance, buildings and facilities, roads, runways, taxiways, infrastructure and other civil projects, both airside and landside. To assist in facilitating the integration of sustainability, the guidelines include a rating system to measure and document the level of a project's success in achieving the requirements of the performance standards. This "LAWA-Sustainable Rating System" is used to track progress and document achievements in implementing the sustainable planning, design and construction practices. Projects will receive a ranking by LAWA depending on the level of sustainability reached in the planning and design and/or construction phases. LAWA modifies LSAG as needed to ensure the innovation and cutting-edge intention of the document through the implementation experience, environmental trends, technological advances and new regulatory requirements.

The LAX Development Program has taken an active role in implementing LSAG for LAWA projects. Each individual project uses LSAG to design, build and update buildings to meet the highest sustainable standards.

Project	Sustainable Objective
TBIT Renovations	<i>Design – LEED® Silver</i>
Crossfield Taxiway Project	<i>Design – LSAG Sustainable Construction – LSAG Sustainable</i>
Bradley West	<i>Design – LEED® Silver Construction – LSAG Business</i>
LAX Aircraft Rescue and Firefighting Station No. 80	<i>Design – LEED® Silver Construction – LSAG Business</i>
Taxilane S	<i>Design – LSAG Sustainable Construction – LSAG Sustainable</i>
Taxilane T	<i>Design – LSAG Sustainable Construction – LSAG Sustainable</i>
Bradley Interim Bus Terminals	<i>Design – LEED® Silver Construction – LSAG Business</i>
Central Utilities Plant	<i>Design – LEED® Silver Construction – LSAG Business</i>

Sustainability Training

With the implementation of LSAG Version 5.0, LAWA has developed the training for LAWA staff, tenants and concessionaires who use LSAG. These training will be performed in 2010.



Green Standards

As LSAG allows flexibility in how project teams include sustainable features in projects, LAVA has no plans to incorporate specific green specifications into their planning, design and construction processes. LAVA believes that, by allowing design and construction teams the flexibility in developing specifications, LAVA can still achieve the objectives of their Vision Statement.



Objective 8

PROMOTE SUSTAINABILITY AWARENESS TO AIRPORT EMPLOYEES AND THE GREATER COMMUNITY.

LAWA believes that a sustainable organization looks beyond environmental stewardship and addresses economic growth and social responsibility through interaction with the surrounding community. Through its Sustainability Vision and Principles, along with its long-standing policies that focus on creating beneficial economic impacts, improving labor and community relations and providing leadership within the aviation community, LAWA is committed to making its facilities great places in which to work and travel. The following programs have been developed to meet the objective:

- LAWA develops educational opportunities for local schools.
- LAWA continues to develop community outreach programs for residences near the airports.
- LAWA provides programs to protect the health and safety of its staff, tenants and passengers.
- LAX continues to expand its public arts program

LAWA set the following targets to make staff, tenants and passengers aware of its sustainability programs:

- Provide training to 100 percent of LAWA staff to make them aware of sustainability programs by December 2008.
- Offer formal training to 100 percent of LAWA tenants and consultants to make them aware of LAWA’s sustainability programs by December 2008.

LAWA is continuing to make LAWA staff, tenants, consultants and community members aware of its sustainability program. The Environmental Services Division communicates LAWA's sustainability efforts in a monthly newsletter, Environmental Connections. Sustainability activities are brought to LAWA staff’s attention as part of a weekly update on airport activities communicated by Gina Marie Lindsey to LAWA staff. While LAWA did not meet the specific targets of this objective, it has continued to communicate its sustainability efforts to staff in less formal manners.

Through its interaction with its staff, tenants, passengers and community, LAWA is providing ways to make the airports more sustainable places.

Initiative	Status
LAWA will provide sustainability education and training to LAWA employees, its tenants and consultants.	<i>In progress.</i>
LAWA will expand its public arts program into new spaces and with new programs.	<i>Expanded to Tom Bradley International Terminal</i>
LAWA will improve communication to its passengers on its sustainability program.	<i>In progress.</i>



Initiative	Status
LAWA will develop an internal and external sustainability communication strategy and plan.	<i>In progress.</i>

Educational and Charitable Programs

Throughout its history, LAWA staff has taken steps to foster close relationships with local educational and charitable organizations. These programs include visiting schools, creating LAWA community facilities and donating time and materials to these organizations. LAWA is committed to the science education of future leaders and encouraging aviation-related career and training opportunities. LAWA wants to lay the foundation for a bright future for today’s students. As described in the Sustainability Plan, LAWA staff continues to be involved with the following programs:

- Aviation Career Education (ACE) Academy
- Gateways Internship Program
- AIRCademics Passport to Art Program
- Wings to Fly Mentoring Program

Other community outreach programs that LAWA participates in include:

Los Angeles Unified School District Aircraft Mechanics School

The Los Angeles Unified School District Aircraft Mechanics School is located at VNY and is a branch of the North Valley Occupational Center–Aviation Center (NVOC-AC). It enables students to earn certification in general airframe and power plant mechanics to become mechanics, instrument technicians, inspectors and fabricators. The program curriculum, approved by the Federal Aviation Administration (FAA), consists of 47 subject areas to prepare students for a wide array of jobs in the aviation-aerospace industry. The Los Angeles Unified School District’s Division of Adult and Career Education operates the NVOC-AC.

Flight Path Learning Center of Southern California

In 2002, the Los Angeles Board of Airport Commissioners (BOAC) approved Flight Path to operate an educational facility and museum in the LAX Imperial Terminal. The Flight Path Learning Center is dedicated to recognizing and preserving Southern California’s aerospace heritage as well to guiding individuals and young people and their educational paths towards careers in science and technology with emphasis on aviation/aerospace. It provides Flight Path with an opportunity to reach thousands of residents and visitors to Los Angeles with historical exhibits, educational tours and programs, research facilities and community events. The Flight Path Learning Center Museum is also the only aviation museum and research center situated at a major airport and the only facility with a primary emphasis on contributions of civil aviation to the history



and development of Southern California. As part of the Learning Center, two annual scholarships are granted for high school students who are interested in aviation, aerospace or aeronautics careers.

LAWA's Community Relations Division also offers tours at the Flight Path Learning Center Museum every Thursday for second through fourth grade students. The students have an opportunity to tour the museum, experience flying by operating a flight simulator and listen to the live broadcast of the air traffic controllers in the tower.

Friends of Ontario Airport

The Friends of Ontario Airport is a unique organization within the aviation industry. As a nonpartisan, nonsectarian organization, it unites people of all backgrounds into a special group with a common interest in aviation and the development and growth of ONT for the benefit of everyone. They have taken a leadership role in informing the public of the aviation services available at ONT, seeking additional air carrier service, encouraging citizen support of the airport and working with aviation industry officials toward the goal of making ONT one of the most convenient air transportation centers on the West Coast. Members meet every other month at ONT to learn about the aviation industry through guest speakers, take behind-the-scenes tours of the airport and participate in group field trips to other aviation related facilities in the area.

Health and Safety

LAWA continues to provide a safe and healthy environment for its staff, tenants and passengers. LAWA has a number of current programs to enhance the safe environment the airports, including:

Airport Police

Since 1946, the LAWA police have been protecting the people who work and visit at LAWA's airports. In 1968, the California legislature granted the LAWA police Peace Officer authority. The Airport Police Division is the fourth largest law enforcement agency in Los Angeles County with 1,100 personnel and has the largest number of canine bomb detection dogs at any airport in the United States.

External Defibrillators

In 2001, BOAC approved the purchase of 50 Automatic External Defibrillators (AED) for LAX. As of 2009, LAWA has 94 AEDs in the terminals at the LAWA airports. In addition, the AED cabinets are wired to the telecommunication center so that LAX emergency personnel are notified when an AED is used. The units are strategically located at security posts in the terminals beyond passenger screening stations and on bicycle patrol units. LAWA has fully trained airport police officers in the use of this life-saving device so that they can be first responders in an emergency.



Emergency Drills

The Office of Intelligence and Emergency Operations has responsibility for developing proper coordination of law enforcement and public safety activities to reduce LAWA's vulnerability to a terrorist event or catastrophic emergency. It manages several specialized units, including the Emergency Services Unit, Canine Detail, Vulnerability Assessment and Analysis Unit, Critical Infrastructure Protection Unit, Dignitary Protection Unit and the Security and Credentials Section.

Medical Personnel

A first aid station is located on the departure level of the Tom Bradley International Terminal and it is open every day from 10:00 a.m. to 10:00 p.m. For travel shots and other non-emergency needs, Reliant Medical Center (located next to LAX) is open 24 hours a day, 7 days a week.

Art Exhibits Program

The purpose of the Art Exhibits Program at LAX and ONT is to educate and entertain the traveling public while emphasizing a cultural experience highlighting what makes Los Angeles unique and interesting. From the lighted pylons that welcome the LAX community as they drive down Century Boulevard to the smaller exhibition locations at ONT, LAWA provides many spaces to introduce local and regional artists to the LAWA community and to provide a more aesthetically pleasing space for the LAWA community.

In 2009, LAWA added the arrivals level of the Tom Bradley International Terminal as an arts exhibit space. A new exhibition consists of 14 video monitors embedded into a forty-foot long, cartoon-style drawing of an aircraft interior to capture the humorous and poignant moments of flight. In its existing space in Terminal 1, LAX has installed over 25 paintings of inspired abstract forms made from acrylic, masking tape, paper and wood. In Terminal 3, multiple ribbons of flagging tape (traditionally used by surveyors) create layers of color and alter the perception of the space. In Terminal 1 at LAX public arts locations in Terminal 1 at the arrivals and departures levels, Terminal 2 at the departures level, Terminal 3 at the arrivals level and in the Tom Bradley International Terminal at the arrivals level.

ONT also has temporary art exhibits in Terminals 2 and 4 at the departures levels. The temporary art exhibits are typically on display for four to six months and highlight local and regional artists using a variety of media. The current exhibits include African bead sculptures, dolls, animals and wearable accessories.

There are no current plans to extend the Art Exhibit Program to VNY.



Internal and External Communication

Through the outreach programs of its Community Relations Division and its Public Relations Department, LAWA is taking steps to increase communication to their employees, passengers, visitors and the surrounding community.

LAWA's Community Relations Division develops and implements ongoing community outreach programs designed to optimize effective two-way communication with residents, visitors and passengers. One of these programs is the Website Infoline, which ensures passengers and visitors receive the information they need to make their local travel experience a positive one by responding to questions and comments submitted through the LAWA website. The Public Relations Department also supports LAWA's goals by establishing and maintaining effective two-way communications with the traveling public, news media, the travel and tourism industry and other stakeholder audiences regarding the policies, procedures, services, operations, development and future plans of LAWA and LAX. The department executes the ongoing passenger services communication program that includes:

- Holding special events on topics of interest to travelers;
- Publishing traveler's guides, such as *All About LAX*, *Smart Travelers Tips*, *LAX Guide for Travelers with Disabilities* and a monthly online newsletter, *LAX Connection*;
- Conducting outreach to thousands of travelers at public events and travel industry shows; and
- Managing the 24-hour, LAX AiRadio 530 AM station that provides up-to-the-minute status on traffic, parking, security and other airport conditions.

LAWA Environmental Services Division attended the SoCal Gas Company Business Efficiency Expo to learn and perform outreach on LAWA's energy strategy. In addition, LAWA was a participant in METRO's publication education campaign that concentrated on air quality issues.



Objective 9

INTEGRATE SUSTAINABLE PRACTICES INTO INTERNAL POLICIES, BUSINESS PROCESSES AND WRITTEN AGREEMENTS.

During the planning stage of the Sustainability Performance Improvement Management System (SPIMS) process, LAWA performed a sustainability assessment of its policies and written agreements. LAWA is committed to sustainability improvement, as evidenced by the numerous existing and planned programs detailed in this report. For the last 30 years, LAWA has performed countless activities that have benefited the environment, the local economy and society. Current practices include:

- LAWA has programs that assist local community members to find jobs and employment training.
- LAWA continues to operate a job center in Inglewood to assist in the hiring of local employees at LAX.
- LAWA has a significant ethics-training program for their staff.
- BOAC adopted LAWA's Sustainability Vision and Principles.
- LAWA has begun to place sustainability language into the procurement process.
- Sustainability requirements are included in written agreements for major projects and new concessionaires.
- LAWA implemented an Environmental Management System (EMS) for ONT's C&M Division in April 2009.

LAWA acknowledges that it needs to further integrate sustainability in a systematic manner, including in its business processes and written agreements. LAWA has set the following target:

- Include sustainability requirements in all written agreements by December 2008.

LAWA placed sustainability requirements into written agreements for LAX modernization projects and some new concessionaires and tenant leases in the fall of 2008. It is slowly incorporating sustainability requirements into existing concessionaire leases and for smaller projects at the airports.

Initiative	Status
LAWA will expand its First Source Hiring Program to all its tenants.	<i>In progress. Planned for August 2010.</i>
LAWA will expand its EMS to LAX C&M Section.	<i>On hold due to reorganization changes.</i>
LAWA will incorporate Sustainability Procurement requirements and documents into the Procurement Wizard.	<i>On hold due to reorganization changes.</i>



Initiative	Status
LAWA will implement a LAWA-wide single document system that will allow more efficient storage and retrieval.	<i>On hold due to feasibility and cost.</i>
LAWA will investigate the feasibility of converting its paper-based timekeeping system into a computer-based paperless system.	<i>On hold due to feasibility and cost.</i>

Jobs and Employment

LAWA's Business and Job Resources Division (BJRD) provides employment and educational outreach services to local community-based organizations and community residents. BJRD provides information regarding employment opportunities to job seekers who are interested in employment with airport tenants, surrounding airport companies and other private companies. LAWA staff assists potential employers by providing them with resumes of job seekers whose skills match the needs of the potential open positions. Some of the programs implemented include the following:

Business and Job Resources Center

BJRD strengthens LAWA's relationships and communications with the community. In support, BJRD established the Business and Job Resources Center (BJRC) in October 2006, to coordinate job-training programs. Using surveys, the BJRC asks LAWA employees about their job training needs. With this information, the BJRC finds providers willing to provide training at the work site or at a convenient location near LAX. The BJRC works with local Work Source Centers and airport employers to enhance community access to airport jobs. LAWA has collaborated with local agencies to develop a job-training program for local LAX residents so that local residents become qualified for LAX-based jobs. Some of the training courses offered to vendors and LAWA staff include conversational Spanish for concessionaires' staff and manager/leadership training in the areas of communication, coaching and interviewing.

BJRD hosted a seminar in April 2010 at the Los Angeles Southwest College, which focused on international trade opportunities available to local companies in the fields of architecture, construction and engineering. Representatives from a variety of agencies presented information about the assistance available to American businesses wanting to expand internationally. The seminar provided businesses with next-step opportunities for referrals to the appropriate government agencies and specialized departments to access these opportunities. Attendees included owners, presidents, CEOs, COOs and other senior management personnel from established and stable small and medium-sized businesses.



As of August 2009, the job-training program has referred 401 candidates, including 276 candidates completing training with 15 training providers - meeting the BJRDC's June 2009 goal. The candidates that completed the training include new employees as well as incumbent workers.

Inglewood Job Center

In January 2008, LAWA opened the Hire Inglewood Program (HIP) at Inglewood City Hall to facilitate the hiring of local community residents who live close to LAX. The purpose of the program is to provide information about jobs in construction, customer service, sales and retail and projects and other resources at LAWA through public computers and knowledgeable staff on-site. Residents complete applications in the HIP office, perform job searches, prepare resumes and research job-training opportunities at the facility. The staff assists in preparing job applications and delivers the applications to the appropriate location at LAWA. LAWA provides prospective employees with information about job training and internship opportunities through partners in Inglewood and locations in other cities. HIP also provides services to business owners by means of literature and information explaining how to do business with LAWA. The center operates Mondays and Wednesdays and every other Friday from 10:00 a.m. to 4:00 p.m.

First Source Hiring Program

LAWA received approval from the Federal Aviation Administration (FAA) in October 2006 to begin implementation of its First Source Hiring Program (FSHP), which ensures that local residents receive priority interview consideration.

The FSHP launched the pilot program in mid-2009. LAWA employers use the database to search for prescreened, qualified and badgeable candidates from the local communities surrounding the airport. In August 2010, at the end of the one-year pilot program LAWA will expand the program for vendors and tenants at LAX to post their open positions. LAWA will assess the prospective job seekers for referral to appropriate open positions. LAWA is now interested in implementing the FSHP with the more than 300 LAX employers. The seventeen agencies in the City's WorkSource System, the Employment Development Department and other community and faith-based organizations will be engaged to provide prescreened, prequalified candidates. In addition, other City of Los Angeles departments may implement the FSHP within the next fiscal year.

The BJRDC's goal is to refer at least two to three prescreened, prequalified candidates per open position to the more than 300 LAX employers; therefore, the program will refer a minimum of 1,200 to 1,800 candidates per week. Currently, the program includes 25 employment centers. BJRDC plans for expansion to more employment centers.



Gateways Internship Program

In 1998, the Inglewood Unified School District, South Bay Workforce Investment Board and LAWA launched the Gateways Internship Program. The program has now expanded to include the Los Angeles Unified School District, Centinela Valley High School District, El Segundo Unified School District, Archdiocese of Los Angeles and various colleges and universities. It consists of a paid College Student Professional Worker Program, a Volunteer Program for participants 16 years and older and an International Student Worker Program. The goal of these programs is to expose program participants to career opportunities in the aviation industries by providing on-the-job practical experience in the aviation field through education, training and mentoring programs and activities. In 2009-2010, 60 students participated in the program that placed them in various divisions at LAX, VNY and ONT or at the FAA.

Environmental Management System

At ONT, its C&M Division implemented an ISO 14001-based Environmental Management System (EMS). The development and implementation efforts in the ONT C&M Division serve as the EMS pilot project for LAWA. The pilot project provides a foundation on which LAWA can build and roll out a comprehensive EMS to LAX. The biggest success of the ONT EMS has been the increase in employee awareness of environmental issues at the airport.

LAWA is now focusing on achieving Initiative 9-2, which focuses on the expansion of the EMS to the LAX C&M Division. The LAX EMS kick-off meeting was held in March 2009. LAX EMS Coordinators visited C&M shops and discussed the EMS with employees to develop EMS objectives and targets between April and June 2009. Thus far, no finalized objectives or targets have been established. In the future, the EMS may expand to include VNY, but no plans have been developed and no timeline defined.