



Los Angeles World Airports Sustainability Report

June 2009

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, 2009

Honorable Mayor Villaraigosa:

LAWA is pleased to submit to you our Sustainability Report for 2008. LAWA is committed to becoming the greenest airport system in the world and to this end, is dedicated to developing, remodeling, and operating its facilities in a sustainable manner.

LAWA is actively implementing its Sustainable Airport Planning, Design and Construction Guidelines for its ambitious LAX Development Program. LAWA updated the Guidelines in April 2009. LAX's new and re-designed buildings and infrastructure will be designed and built for a sustainable future. LAWA believes that sustainably designing, building, and upgrading will allow for greater energy efficiency which will provide cost savings and environmental benefits over the life of the projects.

As LAWA restructured its operations and continues the design and construction process for the LAX Development Program, we recommitted ourselves to the sustainable vision and priorities that were developed in 2006 and 2007 by the Board of Airport Commissioners and LAWA staff. With the new organization, LAWA further defined its approach and strategies. LAWA continues to make great progress with its green purchasing practices, its award-winning employee Rideshare program, the popular FlyAway Program, the successful Source Reduction and Recycling Program, and the expanding Alternative Fuel Vehicle Program.

LAWA is committed to an integrated and coordinated approach to sustainability using the Sustainability Performance Improvement Management System (SPIMS) at the City's airports. As we continuously improve our sustainability activities, LAWA will use the annual report to communicate to the public its actions which will make LAWA a green airport system.

Sincerely,

Gina Marie Lindsey



Objective 1

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

Water is a precious resource in Southern California and the Inland Empire. LAWA recognizes that it must be proactive in its water conservation efforts especially with the consistent drought conditions experienced in recent years. Therefore, LAWA has set four targets to reduce its water consumption in its everyday operations and find ways to re-use water from local treatment sources. The water conservation targets are:

Target 1A: Increase by 50% landscaped acreage irrigated by reclaimed water by 2012.

Target 1B: Increase by 10% use of non-potable/reclaimed water by 2010.

Target 1C: Increase acres of native or drought resistant vegetation to 10% of landscaped acres by 2012.

Target 1D: Reduce potable water use by 10% per passenger and/or cargo tonnage by 2012.

LAWA is already actively working toward meeting these goals using the following current practices:

Table 1-1 Water Conservation Current Practices

- LAX uses reclaimed water to irrigate 35% of its landscaped acres.
- LAX car wash facility uses recycled water.
- LAX’s landscape irrigation systems are computer controlled.
- The toilets and sinks have been converted to low flow fixtures in the LAX terminals and buildings.

Reclaimed Water Use

LAX uses reclaimed water to irrigate 35% of its landscaped acres with service being limited to only those areas accessible to a reclaimed water supply pipeline. The source of the reclaimed water is the Hyperion Wastewater Treatment Plant located just south of LAX along the coast and operated by the City of Los Angeles Bureau of Sanitation. The Westside Water Recycling Project (WWRP) is a joint effort between the West Basin Municipal Water District and Los Angeles Department of Water and Power (LADWP). Secondary treated wastewater from Hyperion is then sent to the nearby West Basin Water Recycling Facility—the largest recycled water plant of its type in the United States—where it is further treated to become high quality reclaimed water and then distributed to businesses.

The use of reclaimed water reduces the region’s dependence on imported water from Northern California, the Eastern Sierras, and the Colorado River and reduces the volume of secondary treated wastewater that is discharged to Santa Monica Bay. LAX receives disinfected tertiary water—secondary treated



wastewater that has been filtered and disinfected—to irrigate its landscaped areas. Approximately 40.2 million gallons, or 123 acre-feet, of water is conserved each year with this reclaimed water.

Manchester Boulevard Reclaimed Water Line

The reclaimed water line under Manchester Boulevard will be used to irrigate the Westchester Golf Course. As part of Initiative 1-1, LAWA is currently working with the successful bidder who will operate the golf course. The intention of this initiative is to have LAWA work with relevant agencies, like LADWP and the Los Angeles County Department of Health, to complete this application of reclaimed water for golf course irrigation. Planning and permitting is anticipated to begin by late summer 2009.

Sepulveda/Imperial Gateway Reclaimed Water Line

The proposed reclaimed water line between Sepulveda Boulevard and Imperial Avenue will be used by the Central Terminal Area (CTA) for LAX Central Utilities Plant (CUP) cooling tower. As part of Initiative 1-2, LAWA will work with affected agencies to extend the reclaimed water line. Currently, the infrastructure and meters and the water line for irrigation have been installed. The current estimated activation date for the Sepulveda/Imperial water line is August 2010. LADWP estimates that bringing reclaimed water to the CTA would further reduce LAX’s water usage by approximately 90 acre-feet per year.

In 2008, ONT installed an Evapo-Transpiration System to decrease irrigation water use.

Table 1-2 Water Conservation Initiatives

Initiative 1-1	LAWA will work with affected agencies to begin the use of reclaimed water at the Westchester Golf Course.
Initiative 1-2	LAWA will work with affected agencies to extend the reclaimed water line to Sepulveda/Imperial gateway and the Central Terminal Area.
Initiative 1-3	LAWA will plant native of drought resistant vegetation in all new landscaping projects.
Initiative 1-4	LAWA will install centralized controls to monitor and regulate irrigation at ONT and VNY.
Initiative 1-5	LAWA will evaluate the feasibility of installing waterless urinals in LAWA buildings.
Initiative 1-6	LAWA will evaluate the feasibility of installing ultra low flow urinals in LAWA buildings.

Computer Controlled Irrigation System

Although LAX uses reclaimed water to irrigate 35% of its landscaped acres, LAWA believes it is important to conserve both the fresh and reclaimed water it uses to irrigate its grounds. LAX has a computerized irrigation system, which provides one central location for controlling the irrigation in the CTA, the upper



level roadway planters, along Century Boulevard and Westchester Parkway and the Sepulveda Boulevard-Century Boulevard interchange – almost 100% of its landscaped areas. With this centralized system, LAX can easily monitor and control the time and duration for irrigation.

This central control facility has allowed LAX in wet years to limit the duration of irrigation from one central control system. Construction & Maintenance (C&M) personnel no longer need to go to each irrigation system to control the flow of water.

With initiative 1-4, LAWA plans to increase its use of centralized controls for irrigation at both ONT and VNY. The ONT Plumbing Shop installed a Hunter Evapo-Transpiration (ET) system in March 2008, which included the ET modules, sensors and a rain gauge. The ET system can create a new, water-efficient irrigation program every day based on local weather conditions by measuring solar radiation, air temperature and humidity. Over the last year, LAWA has been reviewing the feasibility of installing centralized controls at ONT. At this time, the cost of installing controls is prohibitive; therefore, LAWA will continue to monitor the cost and feasibility of installing centralized irrigation controls.

In 2009,
LAWA will test
waterless urinals for
use in LAX terminals.

Low Flow Fixtures

LAWA has installed low-flow water fixtures on 100% of toilets and sinks in LAX terminals and buildings. As part of Initiative 1-6, LAWA is in the process of obtaining approximately seven to nine waterless urinals for use at LAX's Terminal 1. These will be evaluated over the next twelve months for consideration as part of its conservation measures. In addition, LAWA-owned plumbing fixtures at the other airports have low-flow water fixtures and meet the current standards. As ultra-low flow technology becomes more economically feasible, LAWA will install this technology where feasible as committed in Initiative 1-5.

Native and Drought Resistant Vegetation

Initiative 1-3 commits LAWA to planting native and drought resistant vegetation in new landscaping projects at the LAWA airports. As personnel staffing permits, ONT and VNY follow the lead of LAX and replace vegetation with hardscape or drought resistant plants.



Objective 2

INCREASE USE OF ENVIRONMENTALLY AND SOCIALLY RESPONSIBLE PRODUCTS.

LAWA has a more than 10 year history of promoting the use of environmentally and socially responsible products in its operations. LAWA is committed to increasing its use of environmentally and socially responsible products. Therefore, LAWA has set targets that make systematic changes to its purchasing procedures.

Target 2A: Develop and implement a Sustainable Procurement Program by January 2009.

Target 2B: Increase use of recyclable content products as outlined by the City Council.

LAWA has both purchased recycled content products and performed activities to maximize its purchasing of environmentally and socially responsible products.

Table 2-1 Sustainable Procurement Current Practices

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

LAWA encourages the use of Green Seal products for custodial use.

Green Procurement Language

LAWA has developed procurement language to purchase environmentally and socially responsible products as is described in Initiative 2-1 but did not meet its commitment to develop a Sustainable Procurement Program by January 2009. With this language included in Requests for Proposals and Request for Bids, LAWA has purchased recycled content office paper, recycled content plastic bags, Green Seal custodial and other cleaning chemicals. Green Seal is an independent non-profit organization that develops environmental standards for cleaning and other consumer products. LAWA now includes the following language in their Requests for Bids for custodial products:

‘Los Angeles World Airports prefers the purchase of environmentally friendly custodial cleaning supplies which are deemed to be “Green Seal” and/or “Environmental Choice,” designated products by the California Integrated Waste Management Board, an agency of the State of California.’

In addition, LAWA has teamed with the Clinton Foundation and the City of Los Angeles to create markets for energy savings products. With this partnership,



LAWA plans to lower production and delivery costs for building materials, traffic and street lighting and clean buses.

Initiative 2-2 specifies purchase of only duplex copiers and printers, where feasible. LAWA is developing a procedure to meet this initiative.

LAWA converted to an environmentally friendly hand soap.

LAWA facilities have now converted to an environmentally friendly hand soap, which is used throughout the facilities, where feasible, as described in Initiative 2-3. Language was added to the procurement contracts to encourage the purchasing of this type of “green” soap. For the eleven months from June 1, 2008 through April 30, 2009, LAX used a total of 874,332 ounces of foam soap. LAWA will perform a cost benefit analysis of soap use after one year of use to determine cost savings.

Table 2-2 Sustainable Procurement Initiatives

Initiative 2-1	LAWA will develop and receive approval of a sustainable procurement program.
Initiative 2-2	LAWA will specify only purchases of copiers and duplex printers, where feasible.
Initiative 2-3	LAWA will convert hand soap used throughout LAWA facilities to an environmentally friendly alternative, where feasible.
Initiative 2-4	LAWA will expand its monitoring and tracking of recycled content product use.

Monitoring and Tracking of Recycled Content Product Use

The intention of Initiative 2-4 is to have LAWA expand its monitoring and tracking of recycled content product use. For 2004 through 2007, LAX tracked the use of its recycled content paper usage and in 2006 tracked the amount of recycled content plastic trash bags that were purchased. As more recycled content products are added at LAWA facilities, LAWA will develop a more specific tracking system for recycled content product use. LAWA already uses 30% post-consumer recycled paper, 40% post-consumer paper towels and 20% recycled content trash bags.



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. LAWA’s recycling efforts have paid off in many ways including maintaining a waste diversion rate of more than 67 percent at LAX in 2008. However, LAWA will continue its efforts to increase recycling.

Through their goal of taking a leadership role, LAWA has set the following targets for increasing recycling and source reduction:

Target 3A: Divert 70% of waste from landfill disposal by 2015 (using 1998 baseline).

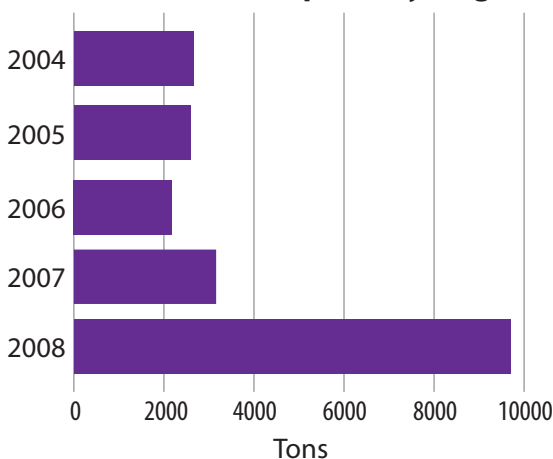
Target 3B: Expand in-flight recycling pilot programs to six airlines by December 2009.

LAWA’s extensive recycling program at its airports and offices have developed many programs to reduce waste.

Table 3-1 Source Reduction/Recycling Current Practices

- ☑ LAX and ONT have developed comprehensive recycling programs.
- ☑ LAX voluntarily removed and recycled 2,200 pounds of mercury from equipment.
- ☑ LAWA has an extensive construction and demolition debris recycling program.
- ☑ LAX developed a pilot program with UAL and SFO to recycle trash on LAX-SFO flights.

LAX and ONT Paper Recycling



LAX Source Reduction and Recycling Program

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 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 2008, LAX recycled approximately 21,000 tons of solid waste, consistent with 2007 numbers.



Most notably, the percentage of construction debris in the total amount has decreased sharply.

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%. LAX is committed to meeting Los Angeles' 70% diversion goal.

Some of the new recycling projects at LAX include:

- New advertising “amenity units” incorporating recycling collection into the unit will be installed throughout the terminals. This is part of LAWA's new advertising concession program, and as described in Initiative 3-2, it helps collect more recyclables from passenger areas.
- Recycling coffee grounds and filters into compost.
- Expanding cooking oil and grease recycling at the airport and exploring the feasibility of an airport-wide collection program.
- Requiring mandatory recycling in airport concession contracts. Currently, this is voluntary.

**In 2008,
LAX recycled
over 10,000 tons
of paper.**

Recycled Materials (in tons)	2004	2005	2006	2007	2008
Paper	2,636.82	2,567.72	2,087.90	3,034.25	9,735.03
Plastic	915.58	997.06	1,041.12	693.99	690.12
Glass	15.15	9.24	12.95	5.46	22.53
Metals	1,245.76	391.41	480.96	396.82	645.05
Wood/pallets	2,321.20	2,041.71	2,023.46	3,509.78	1,221.41
Green Materials	214.09	312.00	405.05	53.45	810.00
Tires	85.78	232.45	91.21	80.02	158.72
Food	35.00	28.73	46.39	56.90	76.05
Construction Debris/ pmb	10,574.00	12,635.00	13,517.69	12,743.57	6,911.43
Other	69.14	183.56	155.56	334.55	432.67
Total Recycled Materials	18,112.53	19,398.89	19,862.30	20,908.80	20,703.01
Total Refuse Gen- eration	33,300.36	33,736.76	33,464.85	33,856.58	32,422.98

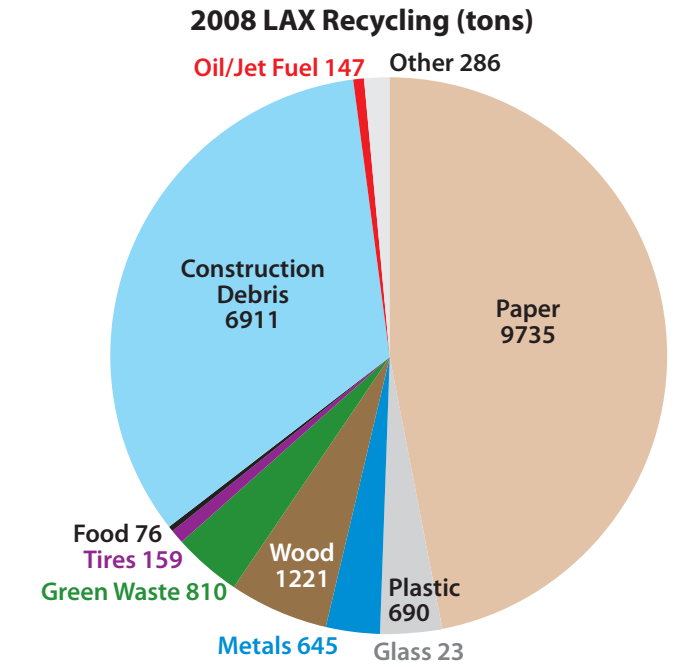


LAWA-Wide Recycling

In addition to the LAX Source Reduction and Recycling Program, ONT and VNY also provide recycling programs to their tenants and passengers. LAWA provides recycling services to tenants at no charge and assists them with setting

up their own recycling programs. Through these actions, LAWA 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. Like LAX, ONT provides free recycling to its tenants and passengers.

LAX and ONT have developed a successful paper recycling program above the LAWA requirement of purchasing only 30% post-consumer paper. In 2008, LAX recycled approximately 10,000 tons of paper including cardboard, newspaper, magazines and miscellaneous office paper and since 2004, ONT and LAWA have recycled over 19,000 tons of paper.



Initiative 3-6 addresses LAWA's intent to increase the recycling of batteries, toner cartridges, computers, light bulbs and other electronic equipment. The Construction and Maintenance employee orientation now includes a section on how to recycle various materials, including e-waste. There is also a plan to have a LAWA-wide "roundup" of e-waste at the airports in 2009.

Composting Program

LAX generates grass clippings and other green wastes from its landscaped acres. These wastes are consolidated and composted for use as mulch for its landscaped areas. From 2004—2008, LAX has composted close to 2,000 tons of yard waste. This program allows LAWA to both save money and landfill space. Composting the green waste generates valuable mulch for re-use throughout the airport. LAWA is also beginning to compost food waste, such as coffee grounds and filters. The intention of Initiative 3-1 is to develop an off-site composting facility for food waste; the planning for this facility is being prioritized.



Table 3-2 Source Reduction/Recycling Initiatives

Initiative 3-1	LAWA will develop an off-site composting facility for food waste.
Initiative 3-2	LAWA will develop new programs to collect recyclables from passenger areas.
Initiative 3-3	LAWA will work with airlines to expand airline recycling program.
Initiative 3-4	LAWA will continue its development of a database inventory to track all material flows.
Initiative 3-5	LAWA will educate employees to decrease use of disposable beverage containers and utensils.
Initiative 3-6	LAWA will increase recycling of batteries, toner cartridges, computers, light bulbs, and other equipment.
Initiative 3-7	LAWA will increase and encourage use of electronic documents.

LAX works with five airlines to expand in-flight recycling.

In-Flight Recycling Program

LAWA constantly searches for ways to increase its recycling. Over the years, LAWA has identified in-flight recycling as a gap in its program. Airplanes have minimal space for storing and segregating materials for recycling. In addition, each airport has a different method for collecting materials for recycling. Therefore, LAX created a pilot program with United Airlines and San Francisco International Airport (SFO) for recycling in-flight wastes for recycling. That pilot program has been completed.

As is described in Initiative 3-3, LAWA is beginning to work with airlines to expand their in-flight recycling program. The program includes Northwest Airlines and Continental Airlines which both implemented an in-flight recycling program. LAWA expects Alaska Airlines to implement a similar program by the end of 2009 with Southwest Airlines coming on-line in 2010. In addition, as part of United Airlines "Blue to Green" program, waste studies are being conducted at the airports they serve. The airline plans to roll out a system-wide in-flight recycling program at a future date. Other airlines are also in the planning stages.

As stated in Initiative 3-4, LAWA will continue its development of a database inventory to track all material flows. A completion date for this initiative has not been established.



LAWA Employee Education

LAWA educates its employees about decreasing the use of disposable beverage containers and utensils through new employee orientation sessions. As of January 2009, LAWA has a section of the new employee orientations devoted to decreasing the use and increasing the recycling of disposable beverage containers and utensils, as is the intention of Initiative 3-5.

Electronic Documents

To increase and encourage the use of electronic documents, as described in Initiative 3-7, LAX has integrated an electronic document system called Prolog into the LAX Development Program database. This electronic database allows LAX employees to enter documents related to LAX Development Program projects into the system. The reviews of the projects are now done through Prolog.



Objective 4

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

With the cost of fossil fuels skyrocketing, and the need to minimize emissions of criteria and toxic air pollutants and greenhouse gases, the efficient use of energy and the incorporation of green power are critical factors in developing and maintaining sustainable operations at LAWA's facilities. LAWA has set the following targets:

Target 4A: Increase green power use to 25% by December 2008.

Target 4B: Reduce energy use by 10% per passenger and/or cargo tonnage by 2010.

LAWA has embraced energy efficiency for over 20 years. LAWA has developed programs both large and small to minimize its energy use.

Table 4-1 Energy Conservation and Green Power Current Practices

- ☑ Twenty-five (25) percent of LAX's power comes from green sources.
- ☑ LAWA retrofitted existing buildings with energy efficient lighting fixtures, ballasts and bulbs.
- ☑ ONT closes one of the runways at night, when feasible, to save power.
- ☑ ONT is actively installing occupancy sensors in administration areas and encouraging employees to turn off the lights.
- ☑ LAX's Central Utilities Plant co-generates steam to heat and air-condition LAX's passenger terminals and offices.
- ☑ LAWA has upgraded 80% of the building air handling units with variable speed drives and soft-start controls.
- ☑ Sixty (60) percent of LAWA computer servers have been upgraded to high efficiency servers.
- ☑ Personal computers and monitors are automatically shut off each night.
- ☑ ONT has moved administration to a newer building so the old Terminal 1 does not need to be heated and/or cooled.
- ☑ When appropriate, inefficient fan drives are replaced with variable fan drives.

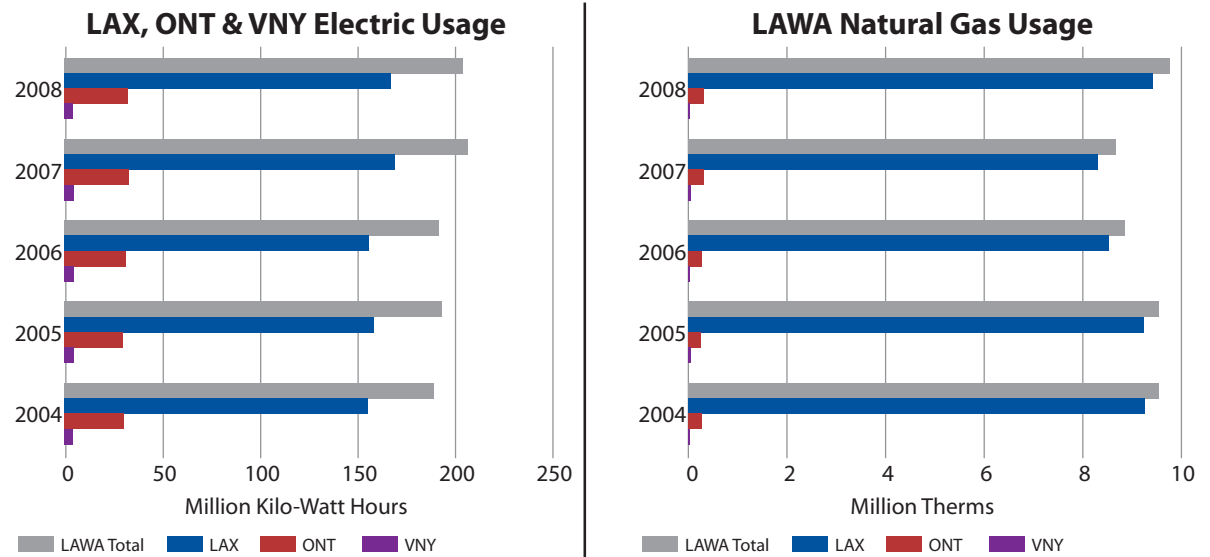
Energy Usage

LAWA uses both electricity and natural gas to fuel its operations. Electricity powers the lights, cools the terminals and offices, allows airplanes to turn off their engines while parked at the gates, and powers other electrical equipment. Natural gas provides electricity and heats the terminals and offices.

From 2004 to 2008, LAWA has increased its overall usage of electricity at both LAX and ONT. These increases can be attributed to an increase in passengers at ONT. At LAX, the increases may be attributed to the electrical conversion

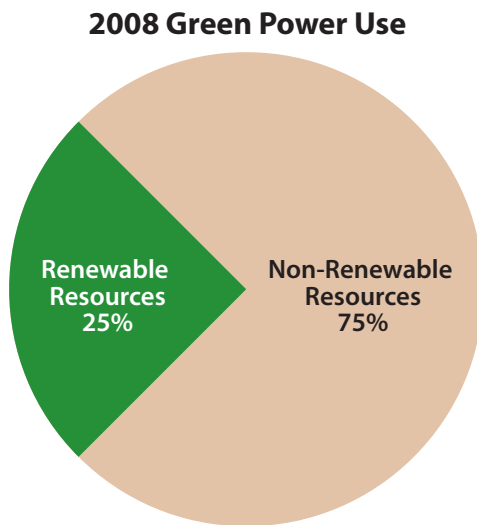


of the arrival gates. The electrical conversion allows aircraft to use electrical power instead of jet fuel to power the air conditioning and electrical systems while parked at the gate.



Green Power

In October 1999, the Board of Airport Commissioners adopted a resolution establishing LAWA's participation in the LADWP's "Green Power for LA" program to purchase electricity from renewable resources. Initiative 4-1 commits LAWA to continue purchasing power from renewable sources. These sources allow LAX to lessen their greenhouse gas emissions and reduce criteria air pollutants. LAX has already met its target for green power since it purchases 25 percent of its power from renewable resources. These renewable resources include wind turbines and hydroelectric power.



Energy Efficient Lighting

Incandescent light bulbs use more electricity and have a shorter use life than compact florescent bulbs. LAWA plans to install energy efficient light fixtures when changing burned out bulbs. LAWA is making progress on Initiative 4-2 by replacing burned out light bulbs with compact florescent bulbs. It is estimated that LAWA has retrofitted 90% of its light fixtures at LAX to higher efficiency light fixtures. Outside the buildings, LAWA has installed light-emitting diodes (LEDs) on runways, signs, and other outdoor lighting, where feasible.

ONT continues to find ways to reduce energy used for lighting. Currently, ONT shuts down one runway most nights to save the energy necessary to keep it



LAWA has installed LEDs on runways, where feasible.

properly lit. Also, occupant sensors are actively being installed in administration areas so lights turn off when there is no one present.

Table 4-2 Energy Conservation and Green Power Initiatives

Initiative 4-1	LAWA will purchase green power from DWP.
Initiative 4-2	LAWA will install energy efficient light fixtures when changing burned out bulbs.
Initiative 4-3	LAWA will install new or increase efficiency of heating and cooling equipment.
Initiative 4-4	LAWA will purchase more energy efficient computer servers and consolidate existing servers.
Initiative 4-5	LAWA will install energy efficient variable speed motor loads during replacement.
Initiative 4-6	LAWA will replace older building-related process energy systems and equipment with energy efficient systems.
Initiative 4-7	LAWA will install Variable Fan Drives, where needed.

Efficient Air-Handling Units

Although LAX produces steam and electricity for heating and cooling from the Central Utilities Plant (CUP), further reduction in energy use is needed. The target of Initiative 4-3 is to increase the efficiency of heating and cooling systems by installing new systems or increasing the efficiency of existing equipment. To this end, 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 speed drives and soft-start controls, which is the objective of Initiative 4-5. With variable speed drives, the units operate at the speed required for the load. Without variable speed drives, the units operate at full load when it is not required. The energy savings can be substantial. With soft start controls, the life of equipment increases due to reduced wear. More importantly, the soft start drive starts the equipment at a lower voltage and increases it slowly until the equipment is at the required voltage. This slow start allows the equipment to operate at its optimal capacity and saves energy. The goal of Initiative 4-7 is to install variable fan drives where needed. Currently 80% of fan drives have been converted.

LAWA has installed variable fan drives on 80% of its equipment.

ONT has moved the Administration offices out of unused Terminal 1, which is an old building, with inefficient air handling equipment, into a new building which is more energy efficient. 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.



Energy Saving Computer Practices

The goal of Initiative 4-4 is to purchase more energy efficient computer servers and consolidate existing servers. Updating and consolidating servers is a process LAWA is continuously working on to achieve higher efficiency. Currently 60% of computer servers have been replaced. Other servers have been consolidated using VMware.

Moreover, LAWA has set up personal computers and monitors to automatically shut down each night. This practice saves energy and money required to keep computers running when no one is using them. It is estimated that automatic shutdowns may save \$50 per computer per year.

Energy Building Related Processes

LAWA is continuously upgrading and replacing broken and outdated equipment. LAWA plans to replace older building-related process energy systems and equipment with more energy efficient systems, which is LAWA's policy when replacing equipment to meet Initiative 4-6.



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

Target 5A: Reduce GHG emissions levels to 35% below 1990 levels by 2030.

Target 5B: Reduce VOC emissions 10% by 2010.

Target 5C: Demonstrate Hythane powered vehicles by 2009.

Target 5D: Convert 100% of LAWA fleet vehicles to alternative fuel vehicles (AFVs) or comparable emission vehicles by 2015.

Target 5E: Convert 50% of airport shuttles and 10% of taxis to AFVs by December 2010.

Target 5F: Convert 100% diesel-based ground equipment to electrical equipment or cleanest technology available by 2015.

LAWA has made great strides in working to minimize its air pollution emissions.

Table 5-1 Pollution Reduction Current Practices

- ☑ LAWA tracks criteria pollutants emissions at LAX and VOC emissions at LA/ONT.
- ☑ 64% of LAWA vehicles are alternative fuel vehicles.
- ☑ LAWA has performed a baseline study of greenhouse gas emissions and has begun plans to meet 35% reduction by 2030
- ☑ LAWA has identified sources of GHG emissions and is establishing a mitigation plan.
- ☑ LAX has begun the conversion of ground service equipment to lower emitting equipment .
- ☑ There is a natural gas station at LAX for LAWA vehicles.

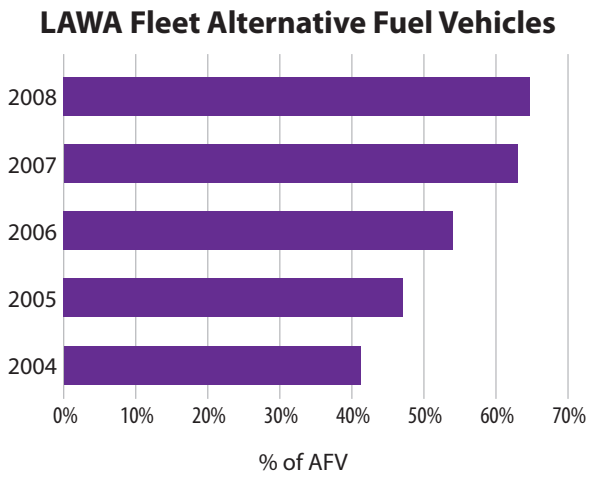
Criteria Pollutant Emissions

As part of LAX and ONT’s air emission permits, LAX and ONT are required to track their criteria pollutants from their stationary sources. LAWA operations emit pollutants from a myriad of activities most notably boilers, heaters, painting, fuel dispensing, and cleaning activities. In the Los Angeles Basin, pollutants which are ozone precursors are of particular importance.



LAWA is making efforts to reduce emissions of volatile organic compounds (VOCs) which are ozone precursors. The goal of Initiative 5-1 is to reduce VOC emissions by specifying low VOC products, such as paints and solvent. Initiative 5-2 is also intended to reduce VOC emissions, with the implementation of a vehicle idling policy for off road diesel vehicles, such as construction equipment. Currently LAWA follows the California Air Resources Board (CARB) standards for specifying low VOC products and vehicle idling policy. The CARB vehicle idling policy limits idling time of off road diesel vehicles to 5 minutes.

Alternative Fuel Vehicles

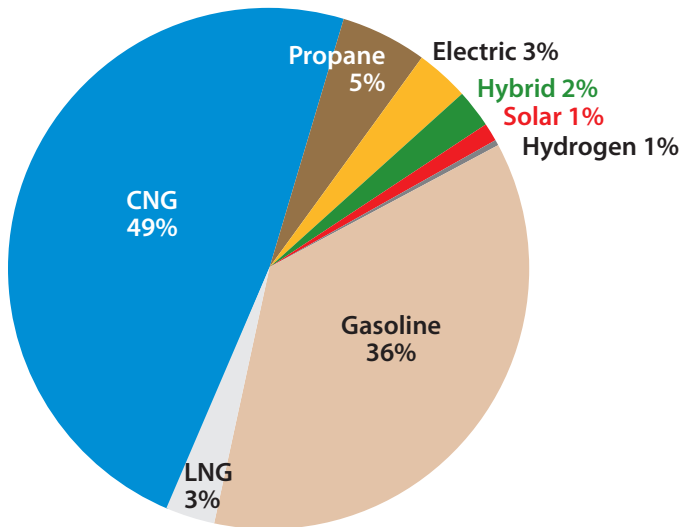


LAWA began its conversion to alternative fuel vehicles (AFVs) in 1991 when the Board of Airport Commissioners adopted a resolution authorizing the testing of two electric vans for use at LAX. Since then LAWA has made significant progress in converting its entire vehicle fleet to AFVs. LAWA has a fleet of pool vehicles, 84% of which are powered by compressed natural gas, which employees are encouraged to use for meetings and site inspections, instead of their personal gasoline powered vehicles. In May 2008 these vehicles were used more than 300 times. In addition to sedans used by LAWA staff, LAWA has light-duty pick-up trucks, sweepers, dump

trucks, transit buses, forklifts, and personlifts that operate on alternative fuels. Currently, LAWA's fleet is comprised of 64% alternative fuel vehicles.

A wide variety of alternative fuels are used to power LAWA's fleet vehicles including: liquid natural gas (LNG), compressed natural gas (CNG), gasoline/electric hybrids, and electric.

2008 LAWA Fleet Vehicle Fuel Type



LAWA is interested in using cleaner-burning Hythane—a mixture of hydrogen and methane—to fuel its fleet vehicles.

The goal of Initiative 5-4 is to demonstrate a Hythane powered vehicle that could be used for LAWA fleet vehicles. So far, a Hythane vehicle has not been demonstrated. Until 2009 LAWA had a hydrogen station at LAX, however, it has been decommissioned because it was a demonstration station. As a demonstration station, it was only capable of providing hydrogen at



a pressure of 5,000 pounds per square inch (psi); current hydrogen vehicles require hydrogen to be delivered at 10,000 psi. The demonstration hydrogen vehicles have been removed from the LAWA fleet for the time being. LAWA is currently focusing on using CNG and LNG vehicles, since they are more readily available, more economical to purchase than experimental technology, and LAWA already has the infrastructure to fuel them.

LAWA's fleet is comprised of 64% alternative fueled vehicles.

There is currently a natural gas station at LAX to fuel LAWA vehicles. A new CNG station is also being planned on airport owned property for public use. The new station is planned to be in operation by 2010. Initiative 5-10 proposes ONT provide an on-airport turnkey CNG fueling station. Currently ONT is waiting to get approval to proceed and if the CNG station is approved, it could begin operating as soon as spring 2010.

LAWA endeavors to decrease emissions associated with ground transportation to and from ONT. The goal of Initiative 5-5 is for LAWA to develop a program requiring taxis to be alternative fuel vehicles. Beginning July 1, 2010 only taxis using compressed natural gas or other alternative fuels can pick up passengers at ONT. ONT is also attempting to develop a program that would require shared ride vans to be AFVs, which is also the intent of Initiative 5-9. ONT is currently working on a plan that would require operators of large fleets of shared ride vans to buy CNG vehicles when old vehicles have to be replaced.

Table 5-2 Pollution Reduction Initiatives

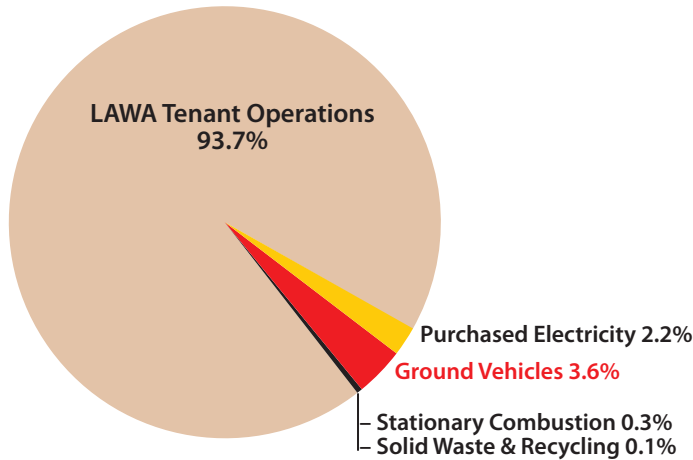
Initiative 5-1	LAWA will specify low VOC products
Initiative 5-2	LAWA will establish and enforce a commercial vehicle idling policy
Initiative 5-3	LAWA will continue its program to upgrade electric power and install pre-conditioned air to LAX gates
Initiative 5-4	LAWA will perform a demonstration of Hythane fuel to power LAWA fleet vehicles
Initiative 5-5	LAWA will work with ONT taxi concessionaires to develop a program to require alternative fuel vehicles for taxis
Initiative 5-6	LAWA will continue to initiate a ground service equipment conversion policy
Initiative 5-7	LAWA will install quick charging stations at all terminals and cargo areas.



Greenhouse Gas Emissions

Under Mayor Villaraigosa’s Green LA Plan, LAWA has committed to reducing its greenhouse emissions to 35% below its 1990 levels by 2030. In 2008, LAWA performed a greenhouse gas inventory to determine its baseline greenhouse gas emissions. LAWA is performing the final review of the inventory.

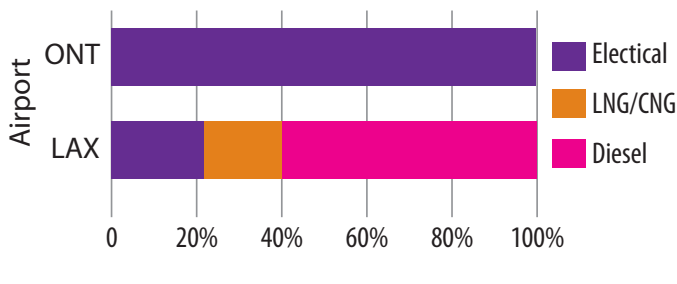
Reduction Needs by Emission Source



For its baseline, LAWA used readily available information from 1990. When 1990 data was not available, LAWA used post-1990 data and trend information to develop its baseline. LAWA used data from 2005 for existing conditions since major construction on the South Runway made 2006 and 2007 unviable. The 2030 GHG forecasts were developed using information from LAWA forecasts, the Southern California Association of Governments forecasts, and the Federal Aviation Administration’s Terminal Area Forecast.

LAWA is committed to reducing the greenhouse gas emissions created by its own operations as directed in the City of Los Angeles Green LA Plan. LAWA will continue to convert its vehicle fleet to alternative fuels and purchase 25% of its power from non-GHG emitting sources. Non-LAWA generated emissions make up the majority of greenhouse gas emissions at the airports; therefore, LAWA will work with airlines, tenants, and concessionaires to reduce their greenhouse gas emissions beyond the 35% City of Los Angeles goal.

Ground Service Equipment Fuel Type



Ground Service Equipment

Ground service equipment (GSE) includes tugs, baggage loaders, catering trucks, and fueling vehicles. The goal of Initiative 5-6 is to implement a ground service equipment conversion policy. At ONT, 100% of tenants’ GSE are electrically powered. At LAX, 41% of tenants’ GSE are powered by electricity or natural gas.

Gate Electrification

In order to reduce the harmful pollutants from combustion of jet fuel, LAWA is upgrading gates to supply electric power and preconditioned air to airplanes during loading and unloading. By furnishing gates with these amenities, planes are able to shutoff auxiliary power so they do not unnecessarily burn jet fuel



while sitting at the gate. The objective of Initiative 5-3 is to continue upgrading the gates at LAX. As of 2005, 100% of the gates at ONT and LAX have electric power which allows planes to shutoff auxiliary power. Also, 55% of LAX and ONT gates use pre-conditioned air.

Quick Charge Stations

LAWA has installed quick charge terminals at gates and cargo areas to promote the use of electric vehicles. The aim of Initiative 5-7 is to install quick charging stations at all terminals and cargo areas. Severe economic conditions created uncertainties for airlines and prevented the installation of any new charge stations in 2008.



Objective 6

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

In 2007, approximately 68 million people traveled through LAX, ONT, VNY and PMD. Along with the approximately 70,000 people who work on or near the four airports, these facilities are convergence points for commuters, employees, and passengers. Moreover, LAX’s air cargo system handled more than 3.4 million tons of goods in 2008—ranked 5th in the United States for air cargo movements. LAWA needs to seek efficiencies in its on and off-site transportation systems. To this end, LAWA is committed to reducing the number of single occupancy trips with the following targets:

In 2006, LAWA received a Gold Medal in the USEPA’s Best Workplaces for Commuters Race to Excellence.

Target 6A: Increase Rideshare participation to 30% by 2010.

Target 6B: Add six new FlyAway locations/stations by 2015.

Target 6C: Build the LAX Consolidated Rental Car Facility by 2015.

Target 6D: Require LAX off-site airport shuttles to reduce their trips by 35% from a 2004 baseline by 2008.

Target 6E: Develop a LAX Centralized Delivery Facility by 2010.

LAWA has taken the following steps to reduce single occupancy vehicle trips.

Table 6-1 Trip Reduction Current Practices

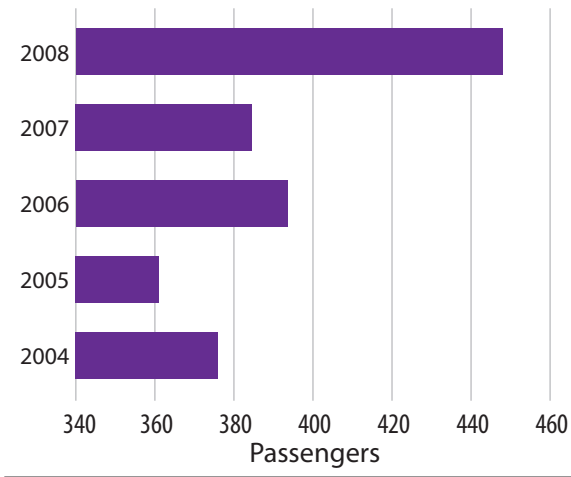
- 25% of LAWA employees participate in the Rideshare Program.
- LAWA instituted a nine-80 work schedule for employees.
- LAX has a cafeteria for LAWA and tenant staff.
- LAX established a FlyAway program for Van Nuys, Westwood, and Union Station.
- FlyAway shuttle schedules are continuously being monitored and updated.
- ONT has a Consolidated Rental Car Facility.
- LAX established a Hotel Shuttle and Rental Car Consolidation Program.
- LAX Car Rental Shuttles have reduced their trips by 58% since 2004.
- LAX has an extensive Traffic Control Program Traffic Operations Center to facilitate traffic flow in the CTA.
- www.lawa.org has traffic alerts for LAX and a link to LADOT real-time traffic.
- LAX has a cell phone waiting lot.

LAWA Rideshare Program

LAWA’s Rideshare Program has eliminated millions of commuter miles and reduced congestion during peak morning and evening commuting hours. The Rideshare Program consists of 63 subsidized vanpools that carry between 6 and 8 people and 75 registered carpools. LAWA provides the commuter van, pays for maintenance and fuel for each vanpool. LAWA staff pays a monthly



Van Pool Passengers



fare to participate in the vanpool. These vans provide rides for over 400 LAWA staff and tenant employees on a daily basis. There is currently a waiting list of twenty-three groups of riders waiting for vanpool vehicles to become available. The goal of Initiative 6-1 is to increase vanpool ridership by decreasing the number of employees to start a vanpool. However, at this point it is not necessary to reduce the number of employees to start a new vanpool since there are currently more groups than vanpool vehicles. If budget allows, LAWA plans to add 8 more vehicles for vanpools by June 2010.

In May 2009, LAWA received its 13th consecutive Regional Rideshare Diamond Award. LAWA received the Innovative Rideshare Program Award for its Redeployment Transportation Assistance (RTA) Program. The Regional Diamond Awards Program showcases rideshare programs of employers who reduce traffic congestion by providing their employees with a full range of rideshare commuter options, services and programs. The program’s co-sponsors are the Los Angeles County Metropolitan Transportation Association, the Ventura County Transportation Commission and the Orange County Transportation Authority.

In 2009, LAWA won its 13th consecutive Regional Rideshare Diamond Award.

The award honored LAWA for its efforts to assist redeployed employees with their new commuting efforts. Redeployment became necessary because air travel decreased nearly 40% in 2008 and 2009. To avoid layoffs, LAWA reassigned employees at ONT and PMD to other work locations. Rideshare distributed memos to each redeployed employee to remind them of the availability of its services and held in-person meetings with them to answer questions, provide customized transit trip plans and vanpool formation assistance. Through the RTA Program, LAWA gained two new vanpools with 13 new vanpoolers, three new carpoolers and five new transit riders from among the 50 redeployed employees. This represented an overall commute mode shift of 42 percent from driving alone to ridesharing.

In addition, LAWA has 75 registered carpools which carry 2 or more people to LAX, ONT, and VNY. The carpools are provided premium parking at LAX, ONT, and VNY. For all registered carpools that commute at least 50% of their working days using the Rideshare Program, LAWA offers one free car wash per month and one free car detailing per year. Each month workers who carpool at least 75% of their work days and turn in a tracking form to the Rideshare Office are entered to win one of five \$50 fuel cards. The intent of Initiative 6-12 is for LAWA to track and make more efficient use of carpools. The employee incentives



encourage employees to register carpools, which helps the Rideshare Office track carpools. Employees can get assistance in finding a carpool through the Rideshare Office or by using www.ridematch.org.

The U.S. Environmental Protection Agency considers LAWA's Rideshare Program to be one of the most comprehensive programs offered by an employer in Southern California. In 2007 it saved 480,000 gallons of gasoline.

Table 6-2 Trip Reduction Initiatives

Initiative 6-1	LAWA will investigate the feasibility of reducing the number of LAWA staff to start a vanpool.
Initiative 6-2	LAWA will investigate the feasibility of working more flexible work schedules, including telecommuting options.
Initiative 6-3	LAWA will expand its bicycle facilities for easier storage of bicycles.
Initiative 6-4	LAWA will begin to develop a video conferencing/Net Meeting system to minimize travel of LAWA staff to different airport offices.
Initiative 6-5	LAWA will open a cafeteria near LAX for LAWA staff.
Initiative 6-6	LAWA will continue to develop FlyAway shuttles to LAX.
Initiative 6-7	LAWA will investigate improving peak scheduling of the FlyAway shuttles for more convenient use of the shuttles.
Initiative 6-8	LAWA will continue to plan the Consolidated Rental Car Facility at LAX.
Initiative 6-9	LAWA will work with off-airport parking lots to develop programs to reduce the number of trips around LAX's Central Terminal Area.
Initiative 6-10	LAWA will increase the quantity of traffic information on www.lawa.org
Initiative 6-11	LAWA will develop a Centralized Delivery Facility at LAX.
Initiative 6-12	Track and make more efficient use of pool cars.

Flexible Work Schedules

Initiative 6-2 commits LAWA to investigate the feasibility of working more flexible work schedules, including telecommuting options. LAWA employees are encouraged to work a "9/80" or "4/40" work schedule in order to reduce congestion and commuter miles. In 2008, the "9/80" and "4/40" work schedules combined saved approximately 750 round trips. Currently the telecommuting program has not been developed. LAWA will need to further investigate the feasibility of telecommuting.



Expanding Bicycle Facilities

LAWA provides bike lockers, showers, and a “Bike Valet” service for LAWA staff who ride their bikes to work. The aim of Initiative 6-3 is to increase bicycle facilities for easier storage of bicycles. Currently bike lockers are being moved to the areas where they are most needed and a new bike rack will be installed in June 2009. In a given week 38 round trips to LAX are made by bicycle, which projected over a year’s time means almost 2,000 vehicle trips are saved. 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 program.

Video Conferencing/Net Meetings

Initiative 6-4 calls for LAWA to begin developing a video conferencing/Net Meeting system to minimize travel of LAWA staff to different airport offices. LAWA has implemented Video Conferencing capability for one to one meetings. This capability is important since LAWA personnel are located at different airports and in many different locations within the airports. LAWA hopes to minimize travel miles during the work day and the time to travel between buildings and airports. Moreover, LAWA has the capability to support large video conferences with the purchase of cameras, monitors, and microphones for the conference rooms. LAWA will begin to evaluate if video and audio equipment should be

purchased for specific conference rooms. In addition, LAWA’s Gig-e network, which is being installed, will allow LAWA to deploy services such as video conferencing.

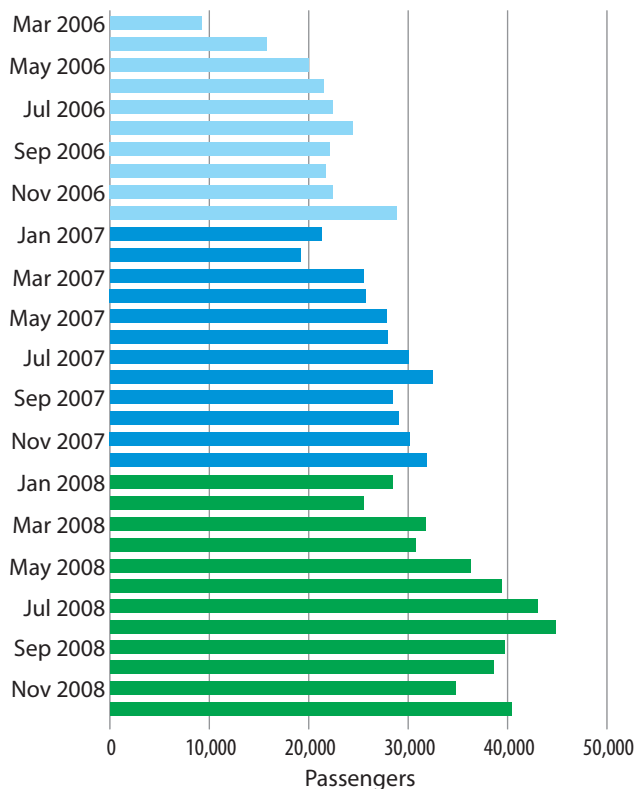
Cafeteria

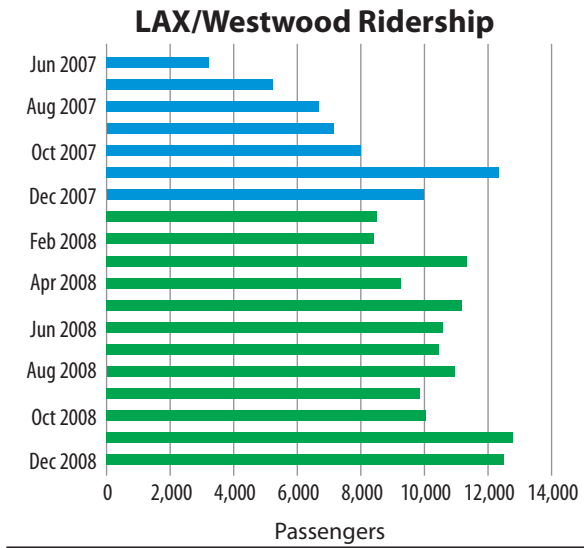
Due to the high concentration of employees who work at LAX, LAWA committed to open a cafeteria near the Airport so that LAWA staff do not need to travel by car to Sepulveda and Century corridors for meals. In 2008 the cafeteria, The World Way West Grill, opened along World Way West (Initiative 6-5). The Grill provides a convenient location for employees to get breakfast, lunch, and snacks. In addition, LAWA employees receive discounts at terminal restaurants and the cafeteria at the Theme Building.

FlyAway Program

LAWA designed the FlyAway Program to provide passengers with an alternative, yet convenient, way to reach LAX while

LAX/Union Station FlyAway Ridership





at the same time reducing the number of single occupancy trips to and from LAWA airports. At LAX, three FlyAway shuttles from Van Nuys, Union Station and Westwood bring passengers to LAX. Since its inception in 1975, the Van Nuys FlyAway has transported 23 million passengers.

The Union Station FlyAway was instituted in March 2006. In its first twenty two months, the Union Station FlyAway transported over 500,000 passengers. This total is a threefold increase over its projected annual total ridership. The Union Station FlyAway has seen a continuous monthly increase since its inception. In 2008 the Union Station FlyAway transported over 400,000 passengers.

FlyAway participation increased by 200,000 in 2008.

The Westwood FlyAway began ferrying passengers from Westwood to LAX in June 2007. In 2008, the Westwood FlyAway transported approximately 125,000 passengers. Like the Union Station FlyAway, the Westwood FlyAway has seen a continued increase since its inception. In 2008, the three FlyAway shuttles transported over 1.5 million passengers to and from LAX – an increase of 200,000 passengers from 2007.

LAWA is making progress on Initiative 6-6, which is the continued development of FlyAway shuttles. In 2009, a fourth FlyAway is planned to begin operating between Irvine and LAX. Also, FlyAway schedules are continuously being monitored to improve peak scheduling for more convenient use of the shuttles, as described by Initiative 6-7. The FlyAway increased the number of shuttles in the early weekday mornings to meet demand.

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. Initiative 6-8 commits LAWA to planning a consolidated rental car facility at LAX, which LAWA has included in its current master plan.

LAX Shuttle Trip Reduction

A Mandatory Hotel Shuttle Trip Reduction Program began in June 2006. The program set up a plan to ultimately reduce shuttle trips to 35% 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 very successful, the number of 2008 trips were 58% below 2004 levels. Success of the program is partly due to the consolidation of hotel shuttle



In 2008, the number of trips by hotel shuttles decreased by 58% compared to 2004 levels.

services. The consolidation program incorporates the shuttles of nine Gateway LAX hotels along the Century Boulevard corridor and provides one bus route for every three hotels depending on demand and location.

In January 2003, the Board of Airport Commissioners 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 at passenger terminals. The program requires on-airport rental car operators to reduce the number of monthly courtesy vehicles trips by at least 20% below 2004 numbers. The Rental Car Traffic Movement Plan was implemented in 2005. Under the plan, each rental car company is allotted a certain number of courtesy trips to the Airport in a year and a fine was set for exceeding the allocated number of trips. The rental car companies have made a significant reduction in the number of rental car shuttle trips.

LAWA staff will work to develop a trip reduction plan similar to those for hotel and rental car shuttles for parking lot operators (Initiative 6-9).

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 CTA. The cameras allow staff to identify unusual incidents which are causing traffic delays and determine whether adjustments are needed to the traffic signals.

Airport traffic information is broadcasted 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 motorists can make knowledgeable driving decisions. Eight portable changeable message signs are available at LAX during peak travel times or for special occurrences. Initiative 6-10 is to increase the quantity of traffic information on www.lawa.org. In 2008, the information available on the website was improved with the addition of traffic alerts and a link to LADOT real-time traffic maps.

Central Delivery Facility

LAWA committed to develop a Centralized Delivery Facility at LAX (Initiative 6-11). The facility will reduce the number of trucks in the Central Terminal Area and prevent delays due to commercial trucks stopping in passenger areas. LAWA is exploring options for the Centralized Delivery Facility.



Objective 7

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

LAWA is continually evaluating and updating its facilities to meet the changing air travel and cargo needs of the region and to provide safe airport operations. Over the next five to ten years, a wide range of projects will be planned, designed and executed at LAWAs airports, including civil landside and airside activities, renovation of existing buildings, construction of new facilities and general construction and maintenance activities; specifically the LAX Development Program. These projects provide LAWAs with tremendous opportunities to incorporate sustainable planning, design and construction practices into its future facilities and operations. LAWAs has set the following targets:

Target 7A: Implement the Airport Sustainable Planning, Design and Construction Guidelines for all projects begun on or after February 2008.

Target 7B: Incorporate green standards into all aspects of LAWAs planning, design and construction process by 2009.

LAWAs has developed Sustainable Guidelines for all planning, design and construction projects.

Table 7-1 Sustainable Design Current Practices

- ☑ LAWAs has developed and is implementing the Sustainable Airport Planning, Design and Construction Guidelines for LAWAs-sponsored projects.
- ☑ LAWAs requires LEED® Accredited Professionals on planning, design and construction projects.
- ☑ LAWAs is incorporating green standards into LAWAs planning, design and construction processes.

Airport Sustainable Planning, Design and Construction Guidelines

In January 2007, the Board of Airport Commissioners committed LAWAs to incorporate the highest possible LEED® standards in future construction projects at LAWAs airports. In addition, LAWAs development and implementation of the Sustainable Airport Planning, Design and Construction Guidelines (Guidelines) strengthens its commitment to become the “global leader in airport sustainability.” LAWAs released a second version of the Guidelines in April 2009 and it is available to the public on LAWAs website.



The Guidelines provide 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.



The Guidelines apply 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” will be used to track progress and document achievements in implementing the sustainable planning, design and construction practices. Every project will receive a ranking by LAWA depending on the level of sustainability reached in planning and design and/or construction. The Guidelines will be modified 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 Guidelines also provide a model for incorporating sustainable practices that can be used by other organizations in the City of Los Angeles as well as other airports nationwide. Other airport organizations including San Francisco International Airport (SFO) and MassPort adopted the Guidelines for use in their projects.

Oversight Committee

LAWA has begun to review LAWA-sponsored projects using the implementation process described in the Guidelines. LAWA created an Oversight Committee to act as a steward for the Guidelines and provide direction on the implementation in a consistent manner. This committee’s responsibilities include recommending modifications to the Guidelines on an as needed basis through their implementation experience and knowledge of environmental trends, technological advances and new regulatory requirements.

The LAX Development Program has taken an active role in implementing the Guidelines for all of the projects. Each individual project will use the Guidelines to design, build and update buildings that meet the highest sustainable standards. LAX wants all these projects to be examples for all projects at all LAWA airports.

Table 7-2 Sustainable Design Initiatives

Initiative 7-1	LAWA will prepare a Green Standard Specifications for use in conjunction with the Guidelines which will apply to all projects.
Initiative 7-2	LAWA will incorporate the Green Standard “New Green Book” into tenant developments.
Initiative 7-3	LAWA will require LEED®-accredited professionals on planning, design, and construction projects, where applicable.



Table 7-2 Sustainable Design Initiatives (cont.)

Initiative 7-4	LAWA will train LAWA employees on the correct use of the Airport Sustainable Planning, Design, and Construction Guidelines.
Initiative 7-5	LAWA will provide a workshop for all interested tenants and consultants on the requirements of the Guidelines.

LEED® Accredited Professional

As part of the Guidelines, LAWA awards points to projects that have a LEED® Accredited Professional (AP) on their planning, design and construction teams (Initiative 7-3).

Sustainability Training

Two initiatives (Initiative 7-4 and Initiative 7-5) discussed in the Sustainability Plan involve training LAWA employees and providing workshops for tenants and consultants on the correct use and the requirements of the Guidelines. There have been some training sessions for select personnel at LAWA regarding the use and requirements of the Guidelines. These sessions were held for those involved in the implementation of the Guidelines (i.e., Oversight Committee members, etc.) in order to begin reviewing projects. Additional workshops will be scheduled as LAWA further implements the Guidelines.

Green Specifications

Since the Guidelines allow flexibility in how project teams include sustainable features in the projects, LAWA has not begun to incorporate specific green specifications into their planning, design and construction processes. LAWA believes that allowing design and construction teams flexibility in developing specifications, LAWA will achieve the objectives of their Vision Statement. LAWA will review Objective 7-2 and Initiatives 7-1 and 7-2 as the Guidelines are more thoroughly implemented.



Objective 8

PROMOTE SUSTAINABILITY AWARENESS TO AIRPORT EMPLOYEES AND THE GREATER COMMUNITY.

Aligned with the triple bottom line approach to sustainability, 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. LAWA set the following targets to make staff, tenants and passengers aware of its sustainability programs:

Target 8A: Provide training to 100% of LAWA staff to make them aware of sustainability programs by December 2008.

Target 8B: Offer formal training to 100% 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 aware of its sustainability program (Initiative 8-1). The Environmental Services Department communicates LAWA’s sustainability efforts in its monthly newsletter. As part of a weekly update on airport activities communicated by Gina Marie Lindsey to LAWA staff, sustainability activities are brought to LAWA staff’s attention. LAWA plans to perform training to for LAWA staff in 2009. LAWA did not meet the specific targets of this objective but it has continued to communicate its sustainability efforts to staff in less formal manners.

Table 8-1 Sustainability Awareness Current Practices

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

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

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
- Job Shadow Day

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, consists of 47 subject areas to prepare students for a wide array of jobs in the aviation-aerospace industry. The NVOC-AC is operated by the Los Angeles Unified School District's Division of Adult and Career Education.

Flight Path Learning Center of Southern California

In 2002, the Los Angeles Board of Airport Commissioners approved Flight Path to operate an educational facility and museum in the LAX Imperial Terminal. The 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 Learning Center 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.



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 of LAWA, including:

Table 8-2 Sustainability Awareness Initiatives

Initiative 8-1	LAWA will provide sustainability education and training to LAWA employees, its tenants and consultants.
Initiative 8-2	LAWA will expand its public arts program into new spaces and with new programs
Initiative 8-3	LAWA will improve communication to its passengers on its sustainability program.
Initiative 8-4	LAWA will develop an internal and external sustainability communication strategy and plan.

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 and has the largest number of canine bomb detection dogs at an airport in the United States.

External Defibrillators

In 2001, the Board of Airport Commissioners approve the purchase of fifty Automatic External Defibrillators (AED) for LAX. LAWA now 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.

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. The office manages several specialized units including the Emergency Services Unit, Canine Detail, Vulnerability Assessment and Analysis Unit, Critical Infrastructure Protection Union, 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. It is open every day from 10:00 a.m. to 10:00 p.m.



Art Exhibits Program

In accordance with Initiative 8-2, LAWA continues to expand its public arts program into new spaces and with new programs. LAWA collaborates with the Los Angeles Department of Cultural Affairs to provide public art projects at LAWA airports. 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 provide a more aesthetically pleasing space for the LAWA community.

LAX has 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 wearable art at ONT. At LAX Terminal 3, the exhibit presents works by artists that preserve and conserve an important moment in time for themselves. Group exhibits that explore layering and additive materials are exhibited in Terminal 1 at LAX. Exhibits by Los Angeles artists that illustrate how they see Los Angeles are presented in the Thomas Bradley International Terminal.

There are no current plans to extend the Art Exhibit Program to VNY. However, LAWA is considering installing temporary exhibit space at the FlyAway center across the street from VNY in the lobby where people wait for the shuttle buses. This temporary exhibit space is in addition to the permanent art installation in front of the FlyAway building.

Internal and External Communication

Initiative 8-3 commits to improving communication to LAWA's passengers on its sustainability programs and Initiative 8-4 commits to developing an internal and external sustainability communication strategy and plan. Through the outreach programs of the Community Relations Division and the Public Relations Department, LAWA is taking steps to increase the communication to their employees, passengers, visitors and the surrounding community.

Through the Community Relations Division, LAX 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 more than 65 special events annually 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 also executes an ongoing environmental communications program to demonstrate LAX's commitment to becoming a sustainable green airport. Public Relations staff exhibit at environmental events and forums. The department uses case histories and media story placements to show how LAX leads the aviation industry using the latest techniques in source reduction and recycling, alternative fuel vehicles, water and energy conservation, air quality and noise management.



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. As evidenced by the numerous existing and planned programs detailed in this report, LAWA is committed to sustainability improvement. For the last 30 years, LAWA has performed countless activities that have benefited the environment, the local economy and society. As LAWA implements the SPIMS process, LAWA acknowledges that it needs to integrate sustainability in a systematic manner. Sustainability will become part of LAWA's business processes and written agreements through the implementation of the SPIMS. LAWA has set the following target:

Target 9A: Include sustainability requirements in all written agreements by December 2008.

LAWA placed sustainability requirements into written agreements for major projects and new concessionaires in the fall of 2008. However, LAWA has not put sustainability requirements in existing concessionaire leases and for smaller projects at the airports.

Table 9-1 Sustainable Practices Current Practices

- ☑ LAWA has programs that assist local community members to find jobs and employment training, including the Business and Job Resources Center, the Inglewood Job Center, the First Source Hiring Program and the Disadvantaged Business Enterprises policy.
- ☑ LAWA opened a job center in Inglewood to assist in the hiring of local employees at LAX.
- ☑ LAWA has fully implemented the First Source Hiring Program pilot program with 100 employers at LAX in July 2009.
- ☑ Many of the Community Benefits Agreement projects have been addressed or implemented.
- ☑ LAWA has a significant ethics-training program for their staff.
- ☑ The Board of Airport Commissioners 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 Construction and Maintenance (C&M) Division in April 2009.
- ☑ LAWA has begun to expand the EMS to LAX's C&M Division.



Jobs and Employment

LAWA's Business and Job Resources Division provides employment and educational outreach services to local community-based organizations and community residents. The Division 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

The Business and Job Resources Division was tasked with strengthening LAWA's relationships and communications with the community. In support of this mandate, the Division established the Business and Job Resources Center (BJRC) in October 2006, which coordinates job-training programs. Using surveys, the BJRC asked LAWA employees about their job training needs. With this information, the BJRC is able to find training 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 new training courses that will be offered to vendors and LAWA staff include conversational Spanish for concessionaires' staff and Manager/Leadership Training in the areas of communication, coaching and interviewing with Duty Free Shops (DFS).

The BJRD worked with Loyola Marymount University (LMU) and LAWA's Landside operations to train 150 shuttle bus drivers for Servisair. LAWA provided training in anger management, customer service, retail sales and auto mechanics.

BJRD partnered with the Los Angeles Community College District to train 20 - 25 high school and college interns. This program has had two years of successful training. The Community College District offered courses in life and work skills, customer service, time management and work ethics.

As of May 2009, the job training program has referred 401 candidates, with 276 candidates completing training with 15 training providers. The candidates that completed the training include new employees as well as incumbent workers. These numbers exceed the BJRD's June 2009 job-training goal of 275 candidates completing training.

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 con-



struction, customer service, sales and retail and projects and other resources at LAWA through public computers and knowledgeable staff on-site. Applications may be completed in the new HIP office and residents will be able to do job searches, prepare resumes and to research job-training opportunities at the facility. The staff will assist in preparing job applications and will deliver the applications to the appropriate location at LAWA. Prospective employees will also be provided with information about job training and internship opportunities, which will be provided 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. It operates three days a week on Mondays, 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 are referred for priority interview consideration. The program started in December 2006 with one participating company—Hudson News— and has now grown to over 80 companies. Moreover, LAWA began collaborating with 56 local work source centers, local employment agencies and community and faith-based organizations to assist in referring prescreened, qualified people to LAWA employers.

**As of May 2009,
 the First Source
 Program has
 confirmed over
 600 hires.**

As of May 2009, 2,717 candidates were referred for approximately 952 airport positions with 71 LAWA tenants with 603 confirmed hires; however, the actual number of confirmed hires may be higher. The program’s hiring goals were to have 250 confirmed hires through June 2008, which it achieved, and 675 hires through June 2009. The program is on track to achieve this goal as well.

The FSHP has been working closely with both the Work Source and One-Stop Center, as well as with community and faith-based organizations that serve the airport area and the surrounding communities. The FSHP also participates in the Mayor’s South Los Angeles Initiative to hire those residents that experience disproportionate levels of poverty and unemployment compared to the general population. Many of these residents live in the designated Project Impact Area. The Disadvantaged Business Enterprises, as described below is one of the policies that have come from the participation in the Mayor’s initiative.

The FSHP has selected a local contractor, Agile 1, to develop a technological interface for job seekers and employers that will streamline the hiring process. Agile 1 is currently performing their discovery among the LAWA employers to determine their hiring needs in conjunction with the BJR. With this information, they plan to build a database of prescreened and qualified candidates from the local communities surrounding the airport



LAWA hopes to expand the FSHP to LAX in six months to a year after fully implementing the pilot program (Initiative 9-1). The goal of this initiative is to expand the FSHP to tenants at each of LAWA's airports. However, there are no current plans to extend this program to other airports because LAWA experienced a downturn in air traffic as a direct result of increased fuel costs and the economic downturn. Subsequently, many LAWA employers chose to either reduce employee hours or curtail new hiring rather than layoff employees. Conditions are beginning to change, as summer travel will bring increased hiring activity among a cross-section of LAWA employers. The FSHP will continue to work with other LAWA employers by providing direct referrals and/or resumes for their consideration.

Disadvantaged Business Enterprises (DBEs)

It is the policy of LAWA to provide Disadvantaged Business Enterprises (DBEs) an equal opportunity to participate in the performance on LAWA contracts. The objective of this policy is to achieve the participation of DBEs at levels comparable to their availability to provide goods and services to LAWA, with the ultimate goal of developing their status and expertise so that they may compete for future contracts on an equal basis. This policy includes Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs) and Other Business Enterprises (OBEs).

LAWA's annual FAA-approved DBEs goal for the fiscal year 2009 is 14.24%. Until such time that a disparity study is adopted, LAWA will achieve this goal on federally assisted projects through race neutral measures. However, LAWA encourages bidders and proposers to assist them in attaining this goal. A participation form must be included with the bid/proposal identifying the DBEs firms participating in the project.

Table 9-2 Sustainable Practices Initiatives

Initiative 9-1	LAWA will expand its First Source Hiring Program to all its tenants.
Initiative 9-2	LAWA will expand its EMS to LAX C&M Section
Initiative 9-3	LAWA will incorporate Sustainability Procurement requirements and documents into the Procurement Wizard
Initiative 9-4	LAWA will implement a LAWA-wide single document system that will allow more efficient storage and retrieval
Initiative 9-5	LAWA will investigate the feasibility of converting its paper-based timekeeping system into a computer-based paperless system.



Ethics Program

The Office of Ethics and Business Conduct is charged with building an ethical culture at LAWA that will nurture and support an environment that upholds the highest standards of ethical conduct. Key functions of the Ethics Office are as follows:

- Referral and resource inquiries and hotline;
- Ethics and compliance training;
- Enforcement of ethics violations;
- Organizational ethics implementation; and
- Coordination and compliance with the City Ethics Commission.

Procurement Wizard

As part of its purchasing system, LAWA has a Procurement Wizard that guides staff through the development of a procurement document. The Procurement Wizard is a computer-based system to ensure that contracts, requests for proposals and other agreements meet LAWA's requirements. Initiative 9-3 encourages incorporating sustainability procurement requirements and documents into the Procurement Wizard. Currently sustainability requirements have not been compiled and incorporated into the system, but there has been some enhancement done to the Procurement Wizard to improve it.

Environmental Management System

At ONT, an Environmental Management System (EMS) has been developed to show LAWA's commitment to the environment. The EMS is a continual improvement cycle of planning, implementing, checking and reviewing every aspect of LAWA's activities that is related to or that can affect the environment, positively or negatively. In the EMS's first phase, LAWA began the development and implementation at ONT's Construction and Maintenance (C&M) Division. The pilot program began in October 2007 and the first kick-off meeting for the fully implemented system was in April 2009. At the beginning of the pilot program, ONT originally chose the following goals for its EMS:

- **Full environmental compliance.** In 2007, ONT received three NOVs for air quality, hazardous water and storm water. In 2008, ONT received two NOVs for hazardous waste and storm water and no NOVs for air quality. The goal is to receive no NOVs to be in full environmental compliance.
- **Divert 70% of its solid waste from landfills.** One of the programs implemented to help reach this goal was a recycling program for dirty rags. This program began in the summer of 2008.
- **Reduce amount of hazardous waste generated and disposed.** The amount of hazardous waste has generally increased at ONT between 2005 and 2007. In the first half of 2009, LAWA generated approximately



9.5 tons. A tracking system will be developed to determine the origin and types of hazardous waste generated at ONT C&M.

- **Reduce air emission from permitted and non-permitted sources.** In 2008, LAWA performed a greenhouse gas (GHG) inventory to determine its baseline GHG emissions. With this baseline, LAWA is developing its GHG reduction strategy. LAWA is implementing some strategies to reduce its GHG emissions from other sources, which include actively converting its vehicle fleet to alternative fuel and purchasing 25% of its power from non-GHG emitting sources.
- **Reduce potable water usage for landscaping.** The ONT Plumbing Shop installed the Hunter EvapoTranspiration (ET) system in March 2009. The ET system can create a new, water-efficient irrigation program every day based on local weather conditions by measuring solar radiation, air temperature and humidity. The Plumbing Shop staff is collecting water usage information and monitoring the effectiveness of the system during the 12-month pilot program. It is anticipated that the ET system data will reflect a significant amount of water conservation.
- **Purchase environmentally preferable products in the Landscape Shop.** C&M is following the existing City of Los Angeles's purchasing policy for recycling content and environmentally preferable products.

The initial development and implementation efforts in the C&M Division served as the EMS pilot project for LAWA. The pilot project provided a foundation on which LAWA could build and roll out a comprehensive EMS to the other airports. LAWA will now begin to focus on achieving Initiative 9-2, which is focused on the expansion of the EMS to the LAX C&M Division.

Internal Business Processes

To create more sustainable internal business processes, the Sustainability Plan developed two initiatives to move LAWA business processes in a more sustainable direction. The intention of Initiative 9-4 is to implement a LAWA-wide single document system that will allow more efficient storage and retrieval. LAWA is currently moving towards such a system, but has not yet fully implemented one.

The City of Los Angeles has demonstrated a paperless timesheet system. However at this time, the demonstrated system would not be implemented at LAWA because of cost issues. The feasibility of converting LAWA's paper-based timekeeping system into a computer-based paperless system as discussed in Initiative 9-5 has been investigated previously. LAWA is now determining whether an existing financial software package can be used for a paperless timekeeping system.