



Los Angeles World Airports Sustainability Report

June 2011

Los Angeles World Airports
Global Leader in
Airport Sustainability

SUSTAINABILITY REPORT



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Gina Marie Lindsey, Executive Director



Los Angeles World Airports

June 30, 2011

Honorable Mayor Villaraigosa:

LAWA is pleased to submit our 2010 Sustainability Report to you. This Sustainability Report describes LAWA's current sustainability initiatives and practices as LAWA continues to strive to become the greenest airport system in the world. Actively implementing the Sustainability Performance Improvement Management System (SPIMS), LAWA incorporates sustainability within all levels of its organization.

LAWA is revising its Sustainability Airport Planning, Design and Construction Guidelines (LSAG) so that they will be consistent with the newly adopted State building code and City's Green Building Ordinance. The revised LSAG with updated checklists is expected to be available before the end of 2011. Other 2010 sustainability highlights include:

- The award of a \$271.5 million contract to replace of the 50-year old Central Utility Plant (CUP) with a state-of-the-art facility that is more energy efficient with significantly less GHG (green house gases) emissions.
- The approval of a \$411,704 contract to purchase nine alternative fuel utility and pick-up trucks by the BOAC (Board of Airport Commissioners).
- The achievement of 63% of alternative-fueled fleet by LAWA.

As one of the industry leaders, LAWA will continue to fully integrate sustainability initiatives into all day-to-day activities at its airports.

Sincerely,

Gina Marie Lindsey

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LAWA AND SUSTAINABILITY

Los Angeles World Airports (LAWA) developed its sustainability program known as the Sustainability Performance Improvement Management System (SPIMS) in 2008 in response to Mayor Antonio Villaraigosa's Executive Directive no. 10, which outlined the requirements for all City departments to become more sustainable. Long recognized the difference between sustainability and the concept of green, LAWA has embraced the "Triple Bottom Line" approach, which moves sustainability beyond environmental stewardship by integrating economic growth and social responsibility. LAWA seeks the balance of these three components in its development and operations. During the past twelve months, LAWA continues to focus on implementing sustainability activities in order to meet the objectives and targets established in the SPIMS.

As the advocate of LAWA's sustainability program, the Environmental Services Division (ESD) is coordinating with other divisions to continually improve LAWA's sustainability performance. While the 2008 economic downturn continues to unfold, the environment of limited resources and competing priorities becomes more real and challenging. This annual report discusses some of the sustainability activities and actions taken by LAWA to make it the greenest airport system in the nation.

LAX Modernization

LAX is in the midst of major modernization that is costing approximately \$5 billions and could create as many as 40,000 jobs for the Southern California economy according to a report released by the Los Angeles Economic Development Corp. The effort includes a total of 25 projects. About 24,500 construction jobs are to be created in the next five years, and the manufacturing, real estate, financial services and retail industries would also benefit according to the 45-page report.

Among all the projects, the Tom Bradley International Terminal (TIBT) Renovation (February 2007 - March 2010) and the Cross Field Taxiway Construction (May 2009 - July 2010) have been completed on time and within budgets. Other projects include remodeling the baggage claim areas, adding new concession facilities and escalators to existing LAX terminals 4, 5, and 6 in the central terminal area (CTA). Two major projects are rapidly emerging and having a significant impact on the LAX landscape. They are the Bradley West Construction and the Central Utility Plant (CUP) Replacement projects.

The Bradley West Project (March 2010 - December 2013)

This project will provide greater capacity to the TBIT Westside with additional new gates to accommodate the new generation aircraft such as Airbus A380. It will also add dining, retail shopping and passenger amenities beyond the security screening areas. Considered to be the

largest public works project in the history of Los Angeles, passengers will experience a high level of comfort and convenience with:

- Fully modernized facility that is able to accommodate up to 4,000 passengers per hour compared with the current 2,800 passengers
- 18 new spacious boarding gates with waiting areas, 9 able to accommodate 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 of premier dining, shopping and other 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 that connecting passengers can conveniently go from one terminal to the others

The architecture and construction of the new facilities are designed to achieve a LEED (Leadership in Energy and Environmental Design) Silver certification from the U.S. Green Building Council. LAWA has developed practices that will minimize adverse environmental impacts from this project on the surrounding communities during construction. Listed below are examples of some of the practices:

- Placing concrete mixers and other equipment on site to reduce the number of trips construction vehicles must make
- Retrofitting construction equipment with emission and noise reduction devices
- Controlling dust using reclaimed water
- Minimize construction runoffs from getting into storm drains

Some of the LEED -silver certified design features include:

- Use recycled construction materials to reduce waste sent to landfills

- Use of low volatile organic compound emitting materials for health and safety of occupants
- Use of lighting controls to minimize electricity consumption
- Use of low flow and ultra low flow fixtures throughout the buildings to conserve water

The Central Utility Plant (CUP) Replacement Project

This project will replace the 50-year-old existing Central Utility Plant (CUP) with a more modern and efficient facility to be located west of the LAX Theme Building, in the middle of the Central Terminal Area (CTA). The major project elements include:

- New facility & plant equipment, combustion gas turbines
- Heat-recovery steam generators, cooling towers, water refrigeration/heating equipment, and ancillary pumps
- New maintenance shops and offices for plant personnel
- Replacement of cooling/heating equipment in passenger terminals, Theme Building, and airport administration building, including a new facility controls system and centralized cooling/heating controls
- New 1.6- million-gallon thermal energy storage tank
- New underground hot/cold water piping network to serve passenger terminals and other buildings
- Installation of a state-of-the-art computerized building information and management system for the entire Central Terminal Area. After the new CUP goes into service, the current facility will be demolished

The new design will be approximately 25 percent more energy-efficient than the current facility and will meet all current air quality regulations. The new facility and systems will provide additional capacity for air conditioning, heating and lighting of the airline terminals and other airport buildings, which will enhance passenger comfort, and reliability of utility service and safety.

LAWA PROFILE

LAWA is a system of three airports owned and operated by the City of Los Angeles. The three airports, including Los Angeles International (LAX), LA/Ontario International (ONT) and Van Nuys (VNY), provide passenger, cargo, and general aviation services for more than 22 million residents living in the Southern California region. In 2010, LAX remains the sixth busiest airport in the world and ranked third in the U.S. for passengers. While both ONT and VNY have experienced reduced traffic, VNY is still one of the two busiest general aviation airports in the world.

LAWA Passenger and Cargo Statistics (2010)

In 2010, the LAX passenger count was 59.07 million, an increase of 4.51 percent from 56.52 million in 2009, while the amount of cargo increased by 15.8 percent to 1.85 million tons. International travel was up 5.5 percent to 15,935,264 passengers, from 15,100,930 in 2009. Air mail tonnage rose to 74,034 tons from 64,073 tons (15.5%) in 2009. The ONT passenger count has decreased by 1.62 percent to 4.808 million compared with the 2009 data. At VNY, the total numbers of aircraft movement also decreased by 11.43 percent to 315,287.

Economic Impact

LAX is a dynamic airport that creates, attracts and supports economic activity throughout Southern California. International flights make a substantial contribution to the economy of Southern California, adding \$82.1 billion in total economic output, plus 363,700 direct and indirect jobs with annual wages of \$19.3 billion in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties according to a 2007 study by the Los Angeles Economic Development Corporation. An estimated 59,000 jobs directly attributable to LAX are located on or near the airport. Approximately 408,000 jobs, spread throughout the region, are attributable to LAX. The employment in the City of Los Angeles due to the airport is estimated to be 158,000 jobs. One in 20 jobs in Southern California is attributed to LAX operations.

REPORT ORGANIZATION

Since 2007, LAWA has prepared the annual Sustainability Report to communicate to its stakeholders – staff, passengers, neighborhood communities, concessionaires, tenants, and other government agencies – all of the sustainability activities and programs developed and implemented during the past twelve months. The document consists of nine sections, one for each of the sustainability objectives developed to guide LAWA in setting targets and implementing sustainable initiatives. As part of the SPIMS process, LAWA established sustainability objectives, set measurable targets, and implemented actions necessary to meet

these targets and objectives. Using various metrics, LAWA will continuously evaluate the progress of these objectives:

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

Objective 1 *INCREASE WATER CONSERVATION IN ALL AIRPORT FACILITIES AND FOR ALL OPERATIONS*

Although the consistent drought conditions experienced in recent years has somewhat improved since late 2009, LAWA recognizes that it must continue the proactive approach in its water conservation efforts as water is a precious resource in Southern California. To continue reducing its water consumption associated with its everyday operations, LAWA has adopted the following conservation practices:

- *LAX uses computerized irrigation systems for its landscape areas*
- *LAX uses reclaimed water to irrigate more than 30% of its landscaped acres*
- *LAWA uses low flow fixtures in the LAX and ONT terminals and buildings*
- *LAWA uses more drought resistant and native species*

Computerized Irrigation System

LAWA believes it is important to conserve both the fresh and reclaimed water uses so it has installed a computer controlled irrigation system in LAX. Such system provides a central location for controlling irrigation in almost all of the landscape in the Central Terminal Area (CTA) -- including planters along Century Boulevard, Westchester Parkway, and the Sepulveda-Century interchange. This facility has allowed LAX in rain seasons to limit the duration of irrigation from one central control location. Maintenance Services Division (MSD) staff can easily monitor the amount of water use and control the duration for irrigation without going to visit each irrigation system.

LAWA is committed to expanding the use of computerized controls for irrigation at both ONT and VNY as permitted by its budget. ONT has an existing Hunter Evapo-Transpiration (ET) system which included the ET modules, sensors, and a rain gauge. The ET system can create and utilize water-efficient irrigation programs based on weather conditions by measuring solar radiation, air temperature and humidity. LAWA continues to review the feasibility of installing additional modules to the existing single unit at ONT.

Reclaimed and Recycled Water Use

In 2010 LAX conserved 35 million gallons (or 107.3 acre-feet) of potable water. It used the same amount of reclaimed water to irrigate over 30% of LAX landscaped areas, with service being limited to only those areas accessible to a reclaimed water supply pipeline. Based on the information provided by the Los Angeles Department of Water and Power (LADWP), the reclaimed water usage in 2010 decreased by approximately 29%. The reclaimed water source

is the Hyperion Wastewater Treatment Plant (HTP), located just south of LAX along the coast. The HTP is owned and operated by the Bureau of Sanitation, part of the Public Works Department of the City of Los Angeles. After secondary treatment, wastewater from HTP is sent to the nearby West Basin Water Recycling Facility where it is further treated to become high quality reclaimed water and then distributed to local businesses. The Westside Water Recycling Project (WWRP) is a joint venture between the West Basin Municipal Water District and LADWP.

Manchester Boulevard reclaimed water line

Since January 2010, the reclaimed water line under Manchester Boulevard has been used to irrigate the Westchester Golf Course. LAWA worked with local agencies, including LADWP and the Los Angeles County Department of Health, to complete this application of reclaimed water for golf course irrigation.

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). LAWA has been working with other agencies to extend the reclaimed water line. Currently, the infrastructure and meters and the water line for irrigation have been installed. In Fall 2010, the Sepulveda/Imperial water line was put in service, bringing reclaimed water to the CTA and further reducing LAX's potable water usage per year.

Car Wash Facility

At LAX, LAWA owns and operates a car wash facility for its fleet and vanpool vehicles. The facility recycles all the wash water. It minimizing discharges going into sewage or storm drains and serves more than sixty vehicles on a regular business day. Recycling wash water and the use of reclaimed water help reduce the region's dependence on imported water from the Colorado River, Northern California, and the Eastern Sierras.

Low Flow Fixtures

As a water conservation measure, LAWA has installed low-flow water fixtures (toilets and sinks) in all LAX terminals and buildings. After extensive testing, LAWA has decided not to continue the installation of waterless urinals because of odor and plumbing problems. As ultra-low flow technology becomes more economically feasible, LAWA will test this technology in its facilities where the budget permits.

Native and Drought Resistant Vegetation

LAWA has increased more than 50% of native and drought resistant vegetation in its LAX landscape areas through replacement or new projects. This is probably the major reason of

decrease in reclaimed water uses. LAWA will continue the use of drought-resistant vegetation or native species for new landscape projects in its other airports.

Objective 2 *INCREASE USE OF ENVIRONMENTALLY PREFERABLE PRODUCTS*

LAWA has been promoting the use of environmentally and socially responsible products for more than a decade. As specified by the Environmentally Preferable Purchasing (EPP) Ordinance no. 180751 passed by the City council in 2009, all City Departments are required to develop their own EPP plans and to report annually the purchases of environmentally preferred products and services. Staffs from the Procurement Services Division (PSD) and Warehouse are responsible for the monitoring and tracking of recycled content product use within LAWA.

LAWA is committed to the use of recycled-content products and continues to recycle the majority of its municipal waste (see Objective 3 for more details). It has implemented the following practices:

- To develop green procurement language
- To use a more environmentally friendly hand soap
- To use 30% recycled content paper in all printers and copiers and in its paper towels, toilet papers, and toilet seat covers
- To use post-consumer recycled content plastic trash bags

Green Procurement Language

Since 2009, LAWA has included green procurement language in all custodial chemical and paper product Requests for Proposals (RFPs) and Request for Bids (RFBs). LAWA has since purchased "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. The following language is typically seen in the RFBs for custodial or cleaning 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.*

Environmentally Friendly Hand Soap

LAX facilities have now converted to an environmentally friendly hand soap, which is used throughout the facilities, where feasible. Language has been added to the procurement contracts for the purchasing of this type of “green” soap. In 2010, LAX used more than 6,520

gallons of foam soap at a total cost of \$179,549. LAWA's PSD will perform a cost benefit analysis of green soap use to determine any cost savings.

Recycled Content Paper Purchase

The City Ordinance no. 170485 allows LAWA to establish a 10% pricing preference for bids on recycled products. LAWA has been purchasing 30% post-consumer recycled paper for its printers and copiers and products such as paper towels, toilet tissues, and toilet seat covers, etc. Listed below are the quantities and cost estimates for various paper products in 2010:

- a. Copy papers - 28.5 tons (\$113,552)
- b. Multifold paper towels - 210.9 tons (\$703,656)
- c. 1/2 Fold toilet seat covers - 19.6 tons (\$96,001)
- d. Jumbo toilet tissue rolls - 100 tons (\$264,960)

Recycled Content Plastic Trash Bags

In 2010, LAX purchased 218.2 tons of plastic trash liners (small, medium, and large sizes) for the terminals and other facilities. The liner contains 10% to 20% post-consumer recycled polyethylene.

Objective 3 *INCREASE RECYCLING AND SOURCE REDUCTION EFFORTS AT ALL FACILITIES AND FOR ALL OPERATIONS*

Following the passing of California Recycling Law (AB 939) in the 1990s, the City of Los Angeles adopted its own Ordinance No.174706, pledging to divert 70% of its solid waste from landfills by 2020. Recycling has always been a main focus in LAWA's drive to be a sustainability leader and LAWA has had its own recycling program since 1990. The extensive recycling program is managed by the Maintenance Services Division (MSD). By providing the necessary equipment, manpower, and resources, it is LAWA's objective to make recycling an everyday part of its business.

LAX Source Reduction and Recycling

The LAX program is very extensive and it recycles construction and demolition debris, textile, food, and electronic waste in addition to the traditional municipal solid waste such as paper, plastic, glass, metals, wood products, tires, green waste, etc. The main LAX program components include:

- ★ In-house collection of recyclables generated by LAWA and some of its tenants
- ★ Recycling containers and bins in airport terminals and airfield areas
- ★ Collection of recyclables from airlines and tenants through individual agreements at no cost to participants
- ★ Airlines and tenants report the data of their own recycling programs to LAWA
- ★ Source reduction through the purchase of recycled products and reuse of materials

LAWA MSD makes it easy for airport employees and the traveling public to recycle by providing convenient recycle bins and receptacles in offices, terminals, and on the airfield areas. Recycled materials are collected and brought to the transfer station, sorted, placed in larger containers or bailed, and then sent to various vendors for further processing. Special collections also can be arranged for some materials upon request. Some notable achievements include:

- ★ Increased metal recycling by 27%
- ★ Increased mixed paper and cardboard recycling by 44%

- ★ Increased wood pallet recycling by more than 110%
- ★ Recycled 28,612 pounds of cooking oil and grease

LAWA intends to work with airlines to implement the in-flight recycling program; to recycle coffee grinds and filters by mixing into compost materials; and to expand oil and grease recycling at LAX.

Construction and Demolition Debris Recycling

Since 2007, LAX has performed extensive expansion and renovation of its facilities resulting in the generation of large amounts of construction and demolition debris. In 2010, LAX alone recycled close to 7,300 tons of debris. For the completed South Airfield Improvement Project, almost all of the concrete and asphalt materials were recycled. Similar goals have been established for the Bradley West Project.

Composting Green Waste

LAX generates grass clippings and green waste from its landscaped areas. These wastes are collected and composted for use as mulch throughout the airport. This program allows LAWA to save money and landfill space.

LAWA-Wide Recycling

In addition to LAX, ONT and VNY also provide recycling to their tenants and passengers at no charge. LAWA's efforts have paid off in many ways. In 2010, LAX recycled and reused 67.2% (diversion rate) of the solid waste it generated. This exceeds last year's figure by 0.8%. The average diversion rate for ONT is maintained at the mid- 50% level. LAWA will continue to increase its source reduction and recycling activities in order to achieve the 70% diversion rate by 2020 as required by the City Ordinance. LAWA will continue to pursue new recycling opportunities.

Objective 4 *REDUCE ENERGY USAGE AND INCREASE GREEN POWER USAGE AT ALL AIRPORT FACILITIES AND IN ALL OPERATIONS*

Burning of fossil fuels and deforestation generate greenhouse gases (GHGs) such as carbon dioxide and nitrogen oxides. These GHGs are major contributors to the Global Warming phenomenon which in turn causes climate changes throughout the world. As a result, the need to minimize GHG emissions and toxic air pollutants generation, the efficient use of energy, and the utilization of green power are critical factors in developing and maintaining sustainable operations at LAWA's facilities. For the past few years, LAWA has implemented the following practices:

- Retrofitting existing facilities with energy efficient lighting fixtures, ballasts, and bulbs at LAX and ONT
- Upgrading building air handling units with variable speed drives and soft-start controls at LAX and ONT
- Replacing old computers, monitors, printers, and copiers with energy efficient models AT LAX and ONT
- Training LAWA staff to turn off lights and office equipment when not in use
- Generating steam at the Central Utility Plant (CUP) to heat and cool passenger terminals and offices in LAX
- Closing one ONT runway at night to save power
- Installing occupancy sensors in administration and maintenance facilities in ONT

LAWA has set the following energy saving targets:

- Increase green power use
- Reduce energy use per passenger and/or cargo tonnage

Energy Usage

LAWA uses both electricity and natural gas in 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. Six out of the seven energy conservation initiatives that LAWA has

identified are related to reducing electricity and gas consumption. LAWA successfully completed the replacement of incandescent light bulbs with compact florescent light (CFL) bulbs at LAX and ONT. CFL bulbs use less electricity and have a longer life span than incandescent light bulbs. For outside facilities such as runways, signage, outdoor lighting etc., light-emitting diodes (LEDs) have been installed wherever feasible.

In 2010, ONT realized the most reduction in energy consumption (probably resulting from the continued drop in the number of passengers). For electricity, 27,484,316 kWh were used at a cost of approximately \$3.215 million. These figures represent a 5.7 percent decrease in electricity use and a 3.97 percent in cost savings compared to the previous year. For natural gas, ONT consumed almost 238,300 therms, a decrease of approximately 3.5 percent when compared to the 2009 figures.

LAWA continuously upgrades and performs preventive maintenance on its air-handling equipment. As LAWA upgrades and replaces its air-handling equipment, new units with variable frequency drives and soft-start controls that are more energy efficient are installed. Because these drives do not operate at full load at all times, the energy savings can be substantial. As of May 2010, LAWA's MSD had converted 80 percent of fan drives.

Green Power Use

LAWA is committed to purchasing green power from LADWP, its utility provider. Because green power is derived from renewable sources, its use allows LAWA to reduce their GHG footprint and other air toxin pollutant emissions. In 2010, the green power use at LAX was 22.25% (35,827,829 kWh) of the total annual power consumption. The resource mix of LADWP's green power is 59% biomass and 41% wind power.

Energy Saving Computer Practices

LAWA continues to purchase more energy efficient computer servers and other electronic equipment. Over 75% of computer servers have been replaced, while other servers have been consolidated using VMware. Additionally, LAWA has set up personal computers and monitors to automatically shut down at night. This practice saves energy and money. It is estimated that automatic shutdowns may save \$50 per computer per year.

LAX Modernization

As part of the modernization project, LAX has been upgrading its elevators, escalators and moving walkways since 2008. Many of the amenities, devices and equipment in the passenger terminals have reached or exceeded their average 25-year operational lifespan. The modernization project will replace and rehabilitate deteriorated equipment and systems to meet current standards of safety and operations requirements. Additionally, the new equipment will be more energy efficient. Starting in May 2009, LAWA began the first phase,

focusing on the 65 units most in need of replacement in Terminals 2, 3, 5 and 6. Subsequent phases will include the remaining 220 units in other domestic terminals. Elevators and escalators in the Tom Bradley International Terminal were part of the terminal's major renovation.

In 2010, LAX planned for the replacement of its 50-year old Central Utilities Plant (CUP). The new CUP will be more energy efficient to heat and cool the Central Terminal Area.

In November 2009, the Board of Airport Commissioners (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

ONT moved the administration offices from Terminal 1 into a new, more energy efficient building in late 2009. A portion of Terminal 1 is still used by the USO and PCI – the parking lot management company. LAWA 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 still are used have stand-alone HVAC systems so that the entire terminal does not have to be kept at a comfortable temperature. These changes saved provided significant cost savings for ONT.

Objective 5 *REDUCE EMISSIONS FROM ALL OPERATIONS INCLUDING STATIONARY AND MOBILE SOURCES*

Located within the South Coast Air Quality 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 has taken an active role in reducing air emissions:

- ❖ LAWA has an aggressive alternative fuel vehicle program
- ❖ LAWA has performed a baseline study of its greenhouse gas emissions at LAX
- ❖ LAX continues to evaluate strategies and options for converting ground service equipment to lower emitting equipment
- ❖ LAWA tracks criteria pollutant emissions at LAX and VOC emissions at ONT
- ❖ ONT has converted all ground service equipment (GSE) to electric power
- ❖ LAX operates CNG stations for LAWA vehicles and ONT will construct a commercial CNG station for both public and LAWA vehicles (expected to be completed in May 2011)

LAWA has set the following targets to address reducing air pollutants:

- ★ Reduce GHG emissions levels to 35 percent below 1990 levels by 2030
- ★ Reduce VOC emissions 10 percent by 2015
- ★ 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 2015
- ★ Convert 100 percent of diesel ground service equipment to electrical equipment or to the cleanest technology available by 2015

LAWA has made great strides in minimizing its air pollution emissions and is making efforts to reduce emissions of volatile organic compounds (VOCs) which are ozone precursors. VOC emissions can be reduced by i) specifying the use of low VOC products, such as solvents and ii) implementing 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 and has made significant progress in converting its entire vehicle fleet to AFVs. In fact, it operates the largest airport AFV fleet in the nation with over 670 AFVs. Currently, more than 70% of its fleet vehicles and equipment are powered by compressed natural gas (CNG), 3% more than in 2009. A variety of alternative fuels are used to power LAWA's fleet vehicles, such as liquid natural gas (LNG), compressed natural gas (CNG), propane, gasoline/electric hybrids, and electric. Additionally, 100% of the LAX courtesy shuttle fleet is powered by natural gas. There currently is a natural gas station at LAX to fuel only LAWA vehicles. In addition, LAWA has an "Alternative Fuel Vehicle Requirement Program" that applies to all on-road vehicles weighing 8,500 pounds or larger. The Program ensures the alternative fuel conversion of car rental shuttles, trucks, and other large vehicles or heavy equipment at LAX. The overall compliance rate of the program is close to 90% in 2010 and LAWA intends to expand the program to include more off-airport parking lot shuttles.

A new CNG station has been planned for ONT on airport property for public use. Expected to be operational in summer 2011, this ONT CNG station will be open to 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 more than \$1.8 million over the next 10 years in preferential pricing for LAWA and its passenger courtesy shuttle bus fleet. In 2010, ONT owned and operated approximately 50 CNG-powered vehicles, which represents approximately 28 percent of the airport's total fleet. In addition, ONT plans to acquire 17 new CNG passenger courtesy shuttle buses before 2012.

LAWA continues to decrease emissions associated with ground transportation to and from ONT and 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 that 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 all ground equipment that service aircraft such as 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 2012. The renewable fuel is produced primarily from urban green waste such as yard clippings and tree trimmings. It is expected to have a low carbon footprint and minimal particulate and other emissions while meeting or exceeding all applicable fuel standards.

Electric Vehicle (EV) Charge Stations

LAWA has installed 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 and have prevented the installation of any new charge stations. As the economic conditions improve, LAWA will review the status of this initiative. For the traveling public, there are more than 30 electric vehicle (EV) charging stations located at Parking Structures P1 and P6. In ONT, Parking Lots 2 and 4 have at least three EV charging stations of both AVCO and small paddle types. Free parking is available for EVs at LAX.

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 2009, LAWA performed a GHG inventory to determine its baseline GHG emissions. Its reduction goals are tabulated below. LAWA is developing a mitigation plan for reducing its overall GHG emissions and will perform the final review of the emission inventory by 2013. The LAX recycling program reduces 39,974 metric tons of CO₂, greenhouse gas emissions or equivalent to just over 88 million pounds of CO₂ emissions. This equates to the removal of 10,000 automobiles from South Coast Air Quality District roadways.

Reduction Goals

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

Gate Electrification

To reduce toxic or harmful pollutants from the burning of jet fuel, LAWA continues to upgrade its gates to provide 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 that they do not unnecessarily burn jet fuel while waiting at the gate. As of 2005, 100% of the gates at ONT and LAX have electric power which allows planes to shut off auxiliary power. In addition, almost 60 percent of LAX and ONT gates have been equipped with pre-conditioned air systems.

Objective 6 *INCORPORATE SUSTAINABLE PLANNING, DESIGN AND CONSTRUCTION PRACTICES INTO ALL AIRPORT PROJECTS*

In 2010, over 63.8million passengers traveled through LAX, ONT and VNY. Moreover, LAX's air cargo system handled more than 2.24 million tons of freight. The traffic congestion in the proximity of LAWA's airports affects not only the air quality but the quality of life of millions - passengers, employees and residents living in the neighborhood communities. LAWA therefore has taken the following actions to mitigate these impacts:

- Providing employee rideshare program
- Working cooperatively with LADOT and other transportation agencies to improve off-airport streets and intersections to reduce congestion
- Giving traffic alerts on LAWA website and a link to LADOT real-time traffic
- Instituting the FlyAway Program
- Providing a cafeteria at LAX for LAWA employees and tenants
- Operating a Hotel Shuttle and Rental Car Consolidation Program at LAX
- Creating an extensive Traffic Control Program that includes a Traffic Operations Center to facilitate traffic flow in the CTA at LAX
- Providing cell phone waiting areas
- Establishing a Consolidated Rental Car Facility at ONT

LAWA has set targets for the above objectives and they are:

- ◆ To increase Rideshare participation to 30 percent during 2010
- ◆ To add six new FlyAway locations by 2015
- ◆ To construct the LAX Consolidated Rental Car Facility by 2015
- ◆ To require LAX off-site airport shuttles to reduce their trips by 35 percent from the 2004 baseline

- ◆ To develop a Centralized Delivery Facility at LAX by 2013

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. Additionally the U.S. Environmental Protection Agency (EPA) considers the LAWA program to be one of the most comprehensive programs offered by an employer in Southern California. It is part of the EPA's Best Workplaces for Commuters Program that distinguishes and provides national recognition to employers offering outstanding commuter benefits. In order to participate in this program, employers must meet the EPA's National Standard of Excellence in commuter benefits.

Since May 2010, the LAWA Rideshare Program has included 893 participants, which is approximately 25 percent of LAWA's 3,589 employees. There are 65 vanpool groups and 30 carpools. For the vanpool program, LAWA provides the commuter van and pays for maintenance and fuel for each vanpool. Employees pay a monthly fare to participate in the vanpool. Although researching vans that would carry a smaller number of passengers each was one of the initiatives, LAWA put this initiative on hold as most of the vanpools have between 10 and 20 people on the waiting list. The largest obstacle 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 2010, 38 riders participated in the Bike to Work Week.

Video Conferencing/Net Meetings

Because of the myriad locations of LAWA staff, the addition of a videoconferencing system will reduce the number of vehicle 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. Four FlyAway shuttle routes, from stations in Van Nuys, Union Station, Westwood, and Irvine, bring passengers to LAX. LAWA reported that the LAX FlyAway network serviced more than 1.5 million passengers in 2010, saving its passengers from driving a combined total of 23 million vehicle miles and saving nearly one million gallons of gasoline. LAWA continuously monitors and adjusts FlyAway schedules to improve peak scheduling and convenience of use of the shuttles.

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. In January 2003, 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 has increased by 23 percent over the baseline of 2004. 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 2010 has decreased by more than 500,000 compared to 2004.

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 or not to adjust the traffic signals. LAWA also mitigates congestion with restrictions on construction trucks and employee traffic during peak traffic periods. Additionally, 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 on radio station AM 530 and on the internet at 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 continues to evaluate and update its facilities to meet the changing air travel and cargo needs for the Southern California Region and to provide safe airport operations. Within the next decade, a wide range of projects will be planned, designed and constructed at LAWA's airports, much of it as part of the LAX Modernization Program, including renovation of existing buildings, landside and airside activities, construction of new facilities, and maintenance activities. These projects provide LAWA with tremendous opportunities to incorporate sustainable planning, design, and construction practices into its future facilities and operations. LAWA has established the following targets:

- Implement the Airport Sustainable Planning, Design and Construction Guidelines for all projects
- Incorporate green standards into all aspects of LAWA's planning, design and construction process

LAWA Sustainable Airport Planning, Design and Construction Guidelines (LSAG)

After BOAC incorporated the highest possible LEED (Leadership in Environmental and Energy Design) standards in future design and construction projects for all airport properties in January 2007, LAWA developed its own "Sustainable Airport Planning, Design and Construction Guidelines". LSAG Version 5.0 was released in early 2010. It is the keystone for designing and constructing LAWA facilities that are sustainable. For new vertical projects, LSAG requires projects to meet LEED® standards. For horizontal projects, LSAG requires projects to meet minimum its 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

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. LAWA modifies LSAG as needed to ensure the innovation and cutting-edge intention of the document, incorporating information from the implementation experience, environmental trends, technological advances, and new regulatory requirements.

With the inclusion of LSAG and LEED® standards in LAX Modernization, LAWA has made significant progress in incorporating the highest sustainable standards into all aspects of its planning, design, and construction processes. Listed below are some of the recent projects and their sustainability achievement levels:

1. *TBIT Renovations*: Design – LEED® Silver
2. *Crossfield Taxiway Project*: Design – LSAG Sustainable; Construction – LSAG Sustainable
3. *Bradley West*: Design – LEED® Silver; Construction – LSAG Business
4. *LAX Aircraft Rescue & Firefighting Station No.80*: Design – LEED® Silver; Construction – LSAG Business
5. *Taxilane S*: Design – LSAG Sustainable; Construction – LSAG Sustainable
6. *Taxilane T*: Design – LSAG Sustainable; Construction – LSAG Sustainable
7. *Bradley Interim Bus Terminals*: Design – LEED® Silver; Construction – LSAG Business
8. *Central Utilities Plant*: Design – LEED® Silver; Construction – LSAG Business

Sustainability Training

To properly implement LSAG Version 5.0, LAWA developed the training for LAWA staff, tenants and concessionaires who use LSAG. Training is scheduled for early 2011.

Green Standards

LSAG allows flexibility in how project design teams include sustainable features in projects. While design and construction teams have the flexibility in developing specifications, LAWA believes that it can still achieve the objectives of its Sustainability Policy statement.

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 goes beyond environmental stewardship and addresses economic growth and social responsibility through interaction with the surrounding communities. 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 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

LAWA is continuing to make its staff, tenants, consultants, and community aware of the sustainability program. The Environmental Services Division (ESD) communicates LAWA's sustainability efforts in its monthly newsletter. LAWA has performed training to selected staff in 2010. LAWA has continued to communicate its sustainability efforts to staff informal means. 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 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:

- i. Aviation Career Education (ACE) Academy

- ii. Gateways Internship Program
- iii. AIRCademics Passport to Art Program
- iv. Wings to Fly Mentoring Program
- v. 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 Adult and Career Education Division.

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 toward 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 also is 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:

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. 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

LAWA promotes and expands its public arts program into new spaces and with new programs and 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 and to provide a more aesthetically pleasing space for LAWA neighbors.

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. 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

LAWA is committed to improving communication to its passengers on its sustainability programs and 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 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
- ✓ 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 implements an ongoing environmental communications program to demonstrate LAX's commitment to becoming a sustainable green airport. Public Relations staff attends local 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. LAWA was a participant in the Los Angeles Metro's publication education campaign that focused on air quality issues in 2010.

Objective 9 *INTEGRATE SUSTAINABLE PRACTICES INTO INTERNAL POLICIES, BUSINESS PROCESSES, AND WRITTEN AGREEMENTS*

For more than 30 years, LAWA has performed a wide variety of activities that have benefited the environment, local economy, and society as evidenced by the numerous existing and planned programs detailed in this report. LAWA always has been committed to sustainability improvement. During the development of the Sustainability Performance Improvement Management System (SPIMS) process, LAWA performed a sustainability assessment of its policies and written agreements. LAWA understands that it needs to integrate sustainability in a systematic manner as it implements SPIMS. To ensure sustainability will become part of LAWA's day-to-day business, LAWA set the target to include sustainability requirements in all written agreements starting December 2008. Current sustainable practices include:

1. the adoption of LAWA's Sustainability Vision and Principles by the BOAC
2. a training program that assists local community residents to find jobs
3. the continual operation of the Inglewood Job Center to assist in hiring local employees at LAX
4. the First Source Hiring Program
5. a significant ethics-training program for LAWA staff
6. the addition of sustainability language in the procurement contracts and written agreements for major projects and new concessionaires
7. the implementation of an Environmental Management System (EMS) for ONT's Construction and Maintenance (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 résumés 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 (BJRC) was tasked with strengthening LAWA's relationships and communications with the community. In support of this mandate, the Division established the BJRC in October 2006, which coordinates job-training programs. Using surveys, the BJRC asks 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. As of November 2010, the job training program has referred more than 320 candidates, exceeding the 2010 BJRD's job-training goal of 300 candidates completing training.

First Source Hiring Program

In October 2006, LAWA began implementation of its First Source Hiring Program (FSHP) after it received approval from the Federal Aviation Administration (FAA). The FSHP 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. The program 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 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 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 BJRD. With this information, they plan to build a database of prescreened and qualified candidates from the communities surrounding the airport.

After fully implementing the pilot program, LAWA has expanded the FSHP to LAX in 2010. However, there are no other plans to extend this program to other LAWA owned airports because LAWA still experienced a downturn in air traffic as a direct result of rising fuel costs and the economic slowdown. Subsequently, many LAWA employers chose to either reduce employee hours or curtail new hiring rather than layoff employees. Conditions are beginning

to improve slightly 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.

Gateways Internship Program

In 1998, the Inglewood Unified School District, South Bay Workforce Investment Board and LAWA launched the Gateways Internship Program. The program now has 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 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.

Inglewood Job Center

In January 2008, LAWA opened the Hire Inglewood Program (HIP) at Inglewood City Hall to facilitate the hiring of local 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. Applications may be completed in the HIP office and residents will be able to do job searches, prepare résumés 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 also will be provided with information about job training and internship opportunities, which will be disseminated through partners in Inglewood and locations in other cities. HIP also provides services to business owners by means of literature and brochures 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.

Environmental Management System

At ONT, an Environmental Management System (EMS) has been developed to demonstrate LAWA's commitment to beyond environment compliance. In October 2007, during the first phase of the EMS program, LAWA developed and implemented an EMS for the ONT's Construction and Maintenance (C&M) Division based on the ISO 14001 standards. The EMS program provides a firm foundation on which LAWA can duplicate and eventually roll out a more comprehensive EMS to other airports within the LAWA system. The biggest success of the EMS has been the significant increase in employee awareness of environmental impacts

caused by their day-to-day activities. ONT C&M employees have become mindful of the environment when they consider equipment and product purchases. The EMS is a continual improvement cycle of planning, implementing, checking, and reviewing every aspect of LAWA's activities that is related to or can affect the environment. Following the LAX EMS kick-off meeting in April 2009, LAWA began to shift its focus on expanding the EMS program to the LAX Maintenance Division. The LAX EMS coordinator continues to meet with shop supervisors and their senior staff to develop meaningful environmental and sustainable objectives and targets during 2010. Future planning includes development and implementation of an EMS at VNY.

Internal Business Processes

Finally, in order to create more sustainable internal business processes, LAWA intends to establish two initiatives that will move LAWA business processes in a more sustainable direction:

- To implement a LAWA-wide single document system that will allow more efficient document storage and retrieval
- To adopt a paperless timesheet system such as the one currently used by the City of Los Angeles

Implementation of both initiatives has been put on hold because of current budget constraints.

Appendix A:

Table 1- Amount of Recycled Materials Collected by LAWA in 2010

Recycled Materials & Source Reduction 2010

RECYCLED MATERIALS	January	February	March	April	May	June	July	August	September	October	November	December	Material Total	Material Total converted to Tonnage
TOTAL PAPER	2221180.1	1269874.0	1278664.0	1255515.0	1281147.0	1272627.0	1279892.0	1279562.0	1243632.0	1229322.0	1261652.0	1259807.0	16133774.1	8066.9
Cardboard/Kraft	747837.7	7911.0	7911.0	5961.0	4643.0	3791.0	3791.0	3791.0	3791.0	3791.0	3791.0	3799.0	800806.7	400.4
High Grade Ledgers	6813.4	1812.0	1452.0	1633.0	2003.0	1245.0	0.0	0.0	0.0	0.0	0.0	0.0	14958.4	7.5
Magazines	1083333.0	1083333.0	1083333.0	1083333.0	1083333.0	1083333.0	1083333.0	1083333.0	1083333.0	1083333.0	1083333.0	1083337.0	1300000.0	6500.0
Mixed Wastepaper	383196.0	176818.0	184166.0	164568.0	191168.0	184258.0	192438.0	192438.0	192438.0	192438.0	174528.0	172671.0	2318007.0	1159.0
TOTAL PLASTIC	351984.9	139500.0	126672.0	117068.0	93318.0	105653.0	123388.0	102858.0	89038.0	98428.0	87698.0	95226.0	1530831.9	765.4
Container Plastic	45021.5	1395.0	2376.0	2700.0	2700.0	2860.0	0.0	0.0	0.0	0.0	0.0	0.0	57052.5	28.5
Film Plastic	298669.4	138105.0	124296.0	114368.0	90618.0	102793.0	123388.0	102858.0	89038.0	98428.0	87698.0	95226.0	1463685.4	731.8
Other Plastics	10094.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10094.0	5.0
TOTAL GLASS	4520.7	1412.1	4308.1	593.7	66.0	298.0	5865.1	66.0	4503.8	430.8	66.0	74.0	22204.3	11.1
Glass Bottles	3262.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3262.4	1.6
Light Bulbs	795.3	1412.1	4308.1	593.7	66.0	298.0	5865.1	66.0	4503.8	430.8	66.0	74.0	18478.9	9.2
Other Glass	463.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	463.0	0.2
TOTAL METALS	262962.1	231052.0	134944.8	136406.0	30752.8	29314.0	75667.0	64140.0	26540.0	67440.0	51460.0	13644.0	1124322.7	582.2
Aerosol Cans	0.0	0.0	0.0	0.0	0.0	139.0	0.0	0.0	0.0	0.0	0.0	0.0	139.0	0.1
Aluminum UBC	14880.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14880.4	7.4
Batteries	1646.4	0.0	1011.8	480.0	852.8	0.0	732.0	0.0	0.0	500.0	0.0	13644.0	18867.0	9.4
Equipment	0.0	0.0	0.0	0.0	795.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	795.0	0.4
Oil Filters	5433.1	0.0	0.0	776.0	2100.0	0.0	625.0	0.0	0.0	380.0	0.0	0.0	9314.1	4.7
Other Metals	241002.1	231052.0	133933.0	135150.0	27800.0	28380.0	74310.0	64140.0	26540.0	66560.0	51460.0	0.0	1080327.1	540.2
TOTAL WOOD/PALLETS	387905.3	412250.0	508250.0	436250.0	300250.0	428250.0	268250.0	476250.0	596250.0	300250.0	412250.0	372250.0	4898655.3	2449.3
Pallets	83905.3	20250.0	20250.0	20250.0	20250.0	20250.0	20250.0	20250.0	20250.0	20250.0	20250.0	20250.0	306665.3	153.3
Wood	304000.0	392000.0	488000.0	416000.0	280000.0	408000.0	248000.0	456000.0	576000.0	280000.0	392000.0	352000.0	4592000.0	2296.0
TOTAL GREEN WASTE	184920.0	45420.0	0.0	19080.0	15160.0	109380.0	26220.0	105620.0	104680.0	0.0	27060.0	43560.0	681100.0	340.6
Yard Waste Composted	118456.9	6685.0	4970.0	2450.0	4640.0	1925.0	7580.0	1455.0	3030.0	1275.0	225.0	1050.0	681100.0	340.6
Tires	118456.9	6685.0	4970.0	2450.0	4640.0	1925.0	7580.0	1455.0	3030.0	1275.0	225.0	1050.0	153741.9	76.9
TOTAL FOOD	2422.2	2015.0	2300.0	2250.0	2400.0	2450.0	2600.0	2700.0	2500.0	2375.0	2200.0	2400.0	28612.2	14.3
Grease Rendering	2422.2	2015.0	2300.0	2250.0	2400.0	2450.0	2600.0	2700.0	2500.0	2375.0	2200.0	2400.0	28612.2	14.3
TOTAL CONT. DEBRIS	12116180.0	99180.0	2305500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75240.0	14596100.0	7298.1
Construction Debris	12116180.0	99180.0	2305500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75240.0	14596100.0	7298.1
TOTAL OTHER	141428.0	240081.5	76348.0	104841.5	65335.0	112900.0	75440.5	176092.5	42337.5	42337.5	99050.5	53570.0	1234795.5	617.4
CPUs/Monitors	11846.0	0.0	0.0	8904.0	0.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	20808.0	10.4
Jet Fuel/Engine Oil	52394.0	5796.0	22902.0	46620.0	15010.0	47322.0	14318.0	91484.0	4966.0	0.0	47208.0	0.0	348022.0	174.0
Mixed Recyclables	56916.0	233723.0	46040.0	44060.0	62470.0	60860.0	60860.0	82950.0	42040.0	42040.0	50860.0	53515.0	819174.0	409.6
Textiles	19000.0	0.0	6500.0	4000.0	6500.0	3000.0	0.0	0.0	0.0	0.0	0.0	0.0	39000.0	19.5
Toner Cartridges	1272.0	562.5	906.0	1257.5	50.0	50.0	262.5	1658.5	362.5	297.5	982.5	55.0	7791.5	3.9
TOT. RECYCLED MATERIALS	15791960.0	2447469.6	4440156.9	2074454.2	1793068.8	2062797.0	1864902.6	2208743.5	2120244.3	1741858.3	1941661.5	1916821.0	40404137.7	20202.1
SOURCE REDUCTION	2647887.5	22836.2	23201.2	22751.2	22991.2	23191.2	23656.2	23656.2	22936.2	30842.2	22756.2	23219.2	2909924.7	1455.0
Purchasing Reusable vs. Disposable, Office Supplies	1557705.6	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	1557815.6	778.9
Double-Sided Copying/E-Mail	1705.2	255.2	255.2	260.2	260.2	260.2	255.2	255.2	255.2	255.2	260.2	255.2	4537.4	2.3
Donations	360.0	315.0	360.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1035.0	0.5
Equipment (Reused)	1341.0	1191.0	1416.0	1266.0	1416.0	1416.0	1416.0	2016.0	1566.0	1491.0	1266.0	1499.0	17525.0	8.8
Glass (Reused)	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	2400.0	1.2
Pallets (Reused)	1066475.8	20815.0	20860.0	20815.0	20905.0	20905.0	20995.0	21175.0	20905.0	20950.0	20770.0	20905.0	1316475.8	658.2
Metals (Reused)	100.0	50.0	100.0	200.0	200.0	200.0	400.0	550.0	100.0	100.0	250.0	350.0	2300.0	1.2
Other Source Reduction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7836.0	0.0	0.0	7836.0	3.9
TOTAL RECYCLING/SOURCE REDUCTION	18438487.5	2470305.8	4463358.1	2097205.4	1816060.0	2085988.2	1888588.8	2232399.7	2143180.5	1772700.5	1964417.7	1940040.2	43314062.4	21657.0