



TRANSPORTATION

INTERRELATED ACTIONS



Buildings & Neighborhoods



Energy



Eco Products & Services

The Southern California lifestyle is dominated by cars. However, cars, along with trucks, trains, ships and planes, contribute to traffic, pollution and greenhouse gas emissions. Our transportation choices greatly impact sustainability and our quality of life. Transportation emissions are a major contributor to climate change, which threatens our coastal environment. Soot and smog from vehicles also poses a health threat, increasing the risk for cancer and asthma. Fortunately, there are a variety of sustainable transportation methods; these methods are essential components of a sustainable city.

Fossil fuel is a finite resource and is energy-intensive to produce and transport. Although some vehicle use is necessary, innovative alternative fuel technologies like electric and biodiesel can reduce air pollution, greenhouse gas emissions and lessen the demand for fuel. Improving vehicle efficiency and increasing average vehicle mileage also reduces fuel use and decreases emissions.

Personal transportation can become more sustainable through the use of alternative transportation such as buses and light rail. Improving access, infrastructure, and convenience further encourages people to use public transportation instead of a car. Biking and walking are also essential parts of sustainable transportation because it requires no fuel and is pollution free. Also, biking and walking creates a greater connection to the community and provides a healthy alternative to driving.

Goods-related transportation is also an significant portion of transportation emissions in Long Beach. With a Green Port Policy guiding efforts to minimize or eliminate negative environmental impacts, the Port is a catalyst for innovative environmental programs. Serving as a model for ports around the world, the Port of Long Beach has pioneered such programs as the Green Flag Vessel Speed Reduction Program and the San Pedro Bay Ports Clean Air Action Plan. With these bold initiatives, the Port is dedicated to improving air quality more quickly and aggressively than has ever been attempted by any seaport, anywhere in the world. For these reasons and more, the Port is recognized internationally as one of the world's best seaports and locally as a partner dedicated to helping the community of Long Beach thrive.

The initiatives in this section will focus on goals and actions to improve transit options, expand bicycle infrastructure, promote a car free lifestyle and reduce port-related air emissions. Efforts to improve sustainable transportation options will also contribute to meeting the greenhouse gas reduction goals in the energy section of this plan. Together, we can contribute to healthier air and a cleaner environment and support a car-free lifestyle for all residents and visitors.

SUSTAINABILITY GOALS

1. Increase the average fuel efficiency of the gasoline-powered City fleet to 35 mpg by 2020
2. 100% of the City fleet is alternative fuel and/or low emission by 2020
3. Reduce vehicle emissions by 30% by 2020
4. Increase public transit ridership by 25% by 2016
5. Increase city employee average vehicle ridership to 1.5 by 2012.
6. 100% of taxi cab fleets are alternative fuel and/or low emissions by 2016
7. Increase bike ridership from 1% to 10% by 2016
8. A system of at least 200 miles of interconnected bike routes (Class 1-3) by 2020
9. Reduce future port-related emissions by 45% by 2011
10. Reduce diesel particulate matter from all port-related sources by 1,200 tons per year
11. Reduce port-related nitrous oxide emissions by 12,000 tons per year

Together, we can contribute to healthier air and a cleaner environment and support a car-free lifestyle for all residents and visitors.



A HISTORY OF LEADERSHIP



LONG BEACH NO. 1 GREENEST FLEET

One of America's greenest fleets of City-owned vehicles, the City of Long Beach's low emissions, alternative fuel approach won the City the US Department of Energy's Green Fleet Award as the number one greenest fleet in North America. The City has over 250 alternative fuel vehicles, including CNG, electric, hybrid, LNG, biodiesel, and propane powered vehicles. Recently, four City Priuses were outfitted with plug-in technology that allows these vehicles to get upwards of 100 mpg.



PORT OF LONG BEACH CLEAN TRUCKS PROGRAM

The most ambitious anti-pollution program ever developed at a global seaport, the Clean Trucks Program, kicked off at the Port of Long Beach in 2008. Old, dirty trucks built before 1989 were banned from Port terminals and by 2012, only EPA-certified 2007 trucks or better will be allowed at Port terminals, reducing pollution by an overall 80 percent from 2008 levels.



LONG BEACH TRANSIT

Long Beach Transit has taken an active role in reducing their carbon footprint by retrofitting their buses with particulate traps to further reduce emissions from their already clean burning gasoline buses. They have also begun replacing older diesel buses with new hybrid technology "E-Power" buses, which are the first hybrid gasoline-electric buses to be introduced into regular transit service in the world.



MOST BICYCLING-FRIENDLY CITY IN THE U.S.

Long Beach is making great strides to become the most bicycle-friendly city in the U.S. by installing 400 bike racks, installing additional bike lane striping and signage to bike routes, conducting a citywide bicycle count to guide its efforts to improve bicycle infrastructure and riding conditions, receiving numerous bicycle-related grants valued at over \$10 million for bike planning and improvements and partnering with Tony Cruz, a professional cyclist and Long Beach's own Bike Ambassador.



BIKESTATION LONG BEACH

The first facility of its kind in the U.S., Bikestation Long Beach is strategically located on the First Street Transit Mall, a nexus for light rail, buses, pedestrians, and a local shuttle that services neighborhoods and key attractions.



Transportation Initiative 1:

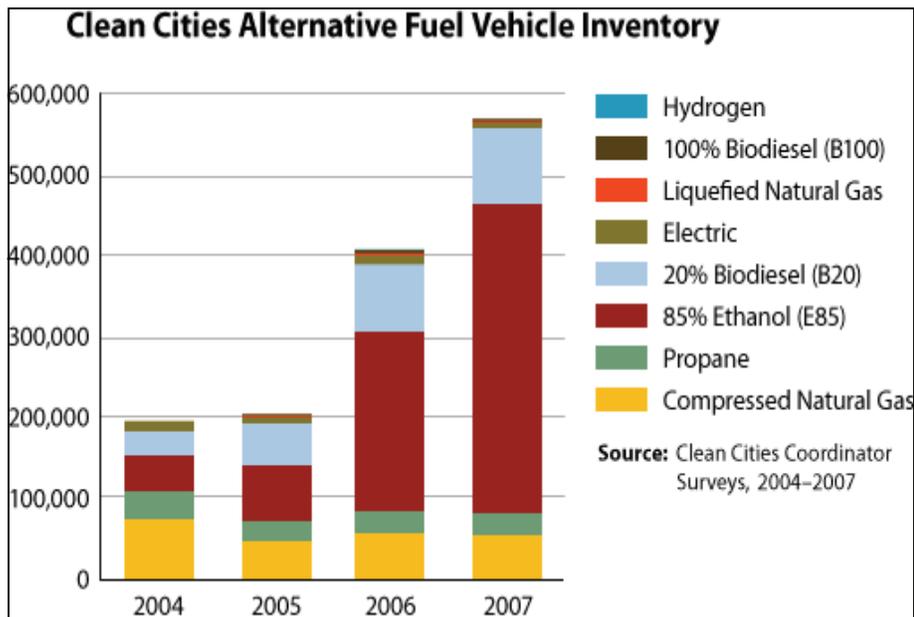
Reduce emissions and improve air quality by moving toward more fuel efficient and alternative fuel vehicles

SUSTAINABILITY GOALS

Increase the average fuel efficiency of the gasoline-powered City fleet to 35 mpg by 2020

100% of the City fleet is alternative fuel and/or low emission by 2020

Reduce vehicle emissions by 30% by 2020



STATISTICS

- There are 381 alternative fuel vehicles in city fleet.
- The current average mpg of the gasoline-powered city fleet is an estimated 22mpg.
- LB Transit was the first agency in California to install particulate traps on its diesel buses, significantly reducing particulate matter emissions, a major air pollutant.
- In 2007, 1 poor air quality day was reported. Generally, the number is less than 10 each year.
- The U.S. EPA bestowed a “Clean Air Excellence Award” on the San Pedro Bay Ports Clean Air Action Plan (CAAP), which was created to reduce emissions in the San Pedro Bay port complex by more than 45 percent by 2012.

ACTIONS

1. Expand the use of alternative fuels through environmentally responsible programs, including but not limited to CNG, LNG, Biodiesel, electric and plug-in hybrid, hydrogen, etc.
2. Incorporate alternative fuel vehicles into the City fleet when vehicle leases turn over and optimize routes for service vehicles
3. Establish local alternative fuel fueling stations for both City and public use
4. Develop and implement a comprehensive Long Beach Green Airport Program that includes mitigation measures and incentive programs to reduce air emissions from airplanes, vehicles and cargo handling equipment and incorporates greening Airport office operations
5. Attract car-sharing companies to the city especially in parking impacted areas to reduce the need for individual vehicles
6. Encourage local car-pool programs to reduce the number of single occupancy commute trips and promote the public’s use of low or no emission vehicles
7. Support the use of neighborhood electric vehicles by improving street safety and incorporating street calming measures
8. Convert all street sweeping and refuse vehicles from diesel fuel sources to liquefied natural gas (LNG)

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Transportation Initiative 2:

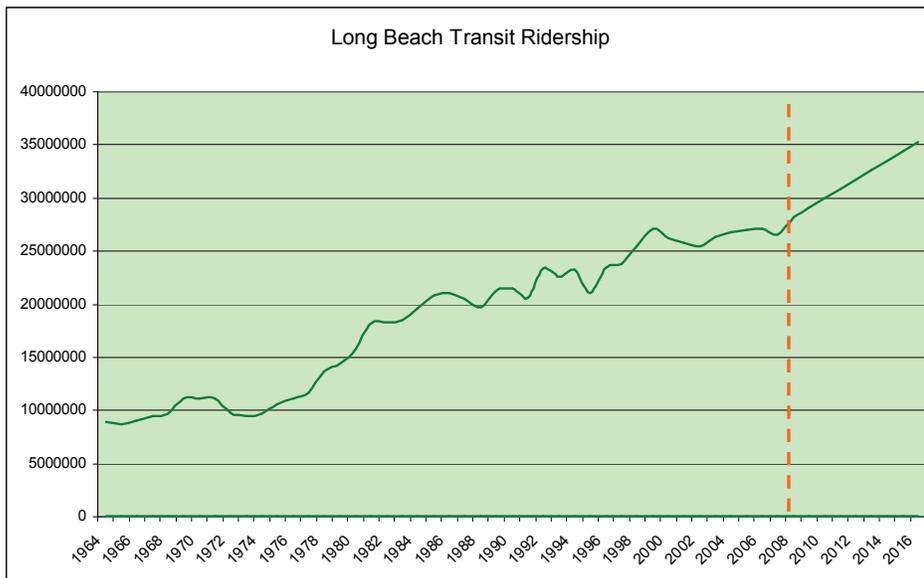
Increase public transit ridership by expanding access, infrastructure and convenience

SUSTAINABILITY GOALS

Increase public transit ridership by 25% by 2016

Increase city employee average vehicle ridership to 1.5 by 2012.

100% of taxi cab fleets are alternative fuel and/or low emissions by 2016



STATISTICS

- In 2008, LB Transit ridership served 28.2 million riders.
- In 2008, the city employee average vehicle ridership was 1.209.
- Long Beach Transit was the first agency in the nation to introduce alternative fuel technology into fixed route transit service.
- An average of 4,500 CSULB students and staff used transit daily through a U-Pass program initiated in 2008.
- Long Beach Yellow Cab will transition their fleet to 85% alternative fuel vehicles by 2012.

ACTIONS

1. Create connections between transit and biking systems including placing bike racks on local and regional buses, the Passport and Aqualink
2. Establish baselines/guidelines to create green transportation standards in Long Beach, including companies such as LB Yellow Cab and LB Transit
3. Expand transit systems so that anyone can travel anywhere within the City by any form of transit
4. Increase the number of solar-powered electric bus tracking signs that provide live bus wait times
5. Continue to increase the number of alternative fuel buses in the LB Transit fleet
6. Expand and enhance bus stop amenities such as benches, shelters, signage and public art to provide comfortable and convenient waiting areas

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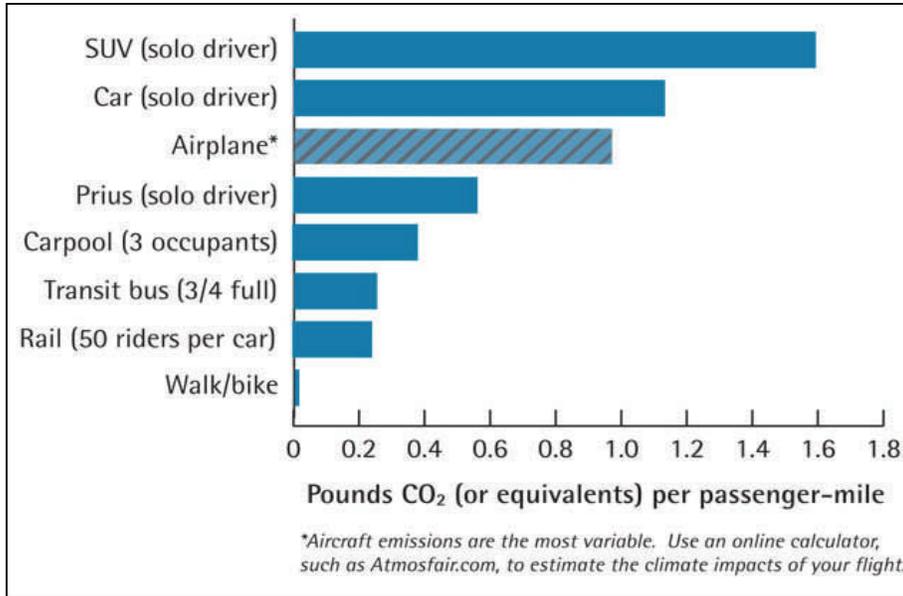
Transportation Initiative 3:

Provide an environment and culture where walking and biking are safe, viable and preferred modes of transportation in the city

SUSTAINABILITY GOALS

Increase bike ridership from 1% to 10% by 2016

A system of at least 200 miles of interconnected bike routes (Class 1-3) by 2020



STATISTICS

- 1% of commuters regularly ride a bike as their primary means of transportation.
- In 2008, Long Beach had 96 miles (Class 1-3) of interconnected bike paths, lanes, and trails.
- The percentage of kids who walk or bike to school has dropped from 50% to 15%.
- The City has been awarded over \$10M in transit/bike grants for use over the next three years
- Over 400 Bike racks were installed in 2008
- 150 employees have enrolled in City Bike Share which allows employees to check out bicycles to ride to meetings or errands, , cutting down on car trips and promoting exercise.

ACTIONS

1. Create safe, connected, and easy to navigate bike routes and work with the City's Bike Ambassador to create signature bike projects/programs
2. Offer bike friendly public facilities, transit, and shops through special route maps, increase bike rental locations and promote bike paths that circulate through popular tourist attractions and provide connections to local cycling groups
3. Promote bike share opportunities throughout the city by creating a bike share program at CSULB and partner with local business to expand bike share program throughout the City
4. Encourage the community, through education, to create a culture where cyclists and motorists interact safely by partnering with LB Transit to link buses to bicycles, promote Bike To Work day and conduct bicycle safety training at Bicycle Rodeos throughout the City
5. Implement fun, healthy bicycle programs by partnering with the School District to establish educational bike programs, partnering with the Health Department to establish exercise bike programs and partnering with Parks, Recreation & Marine to establish recreational bike programs
6. Incorporate traffic calming measures to make neighborhood streets more inviting and keep pedestrians and bicyclists safe
7. Develop internal expertise among City staff for innovative mobility concepts like complete streets
8. Encourage and expand the use of bike valet at local, neighborhood events and festivals



Transportation Initiative 4:

Implement the Clean Air Action Plan (CAAP), designed to significantly reduce port-related air emissions over a 5-year plan, through a partnership with the Harbor Department and its tenants

SUSTAINABILITY GOALS

Reduce future port-related emissions by 45% by 2011

Reduce diesel particulate matter from all port-related sources by 1,200 tons per year

Reduce port-related nitrous oxide emissions by 12,000 tons per year



STATISTICS

- By 2011, emission reduction targets include 47% reduction in DPM, 45% reduction in NOx, and 52% reduction in SOx from OGV, CHE & HDV source categories
- The ports are proposing to provide over \$400 million over the next 5 years to support emission reduction programs
- As of third quarter 2008, the POLB Green Flag Program compliance rate was 95%
- The Clean Trucks Program (CTP) will reduce air pollution from harbor trucks by more than 80% by 2012

ACTIONS

1. Develop and implement mitigation measures and incentive programs necessary to reduce air emissions from trucks, locomotives, harbor craft, and cargo handling equipment (reduced through modernizing the fleets, retrofitting with exhaust after-treatment controls, and using cleaner fuels)
2. Reduce the public health risk associated with port-related mobile sources
3. Maintain the CAAP website to provide the public status of implementation progress, port emission and reductions, and updates to emission reduction programs
4. Reduce emissions through participation in the Vessel Speed Reduction Program, aimed at reducing nitrous oxide (NOx) emissions from ships by slowing their speeds as they approach and depart the port
5. Implement the Technology Advancement Program to identify, evaluate, and demonstrate new and emerging emissions reduction technologies/strategies that could be utilized in future updates to the CAAP
6. Implement the Clean Trucks Program (CTP), which calls for drayage truck owners to scrap & replace old, polluting trucks with the assistance of a port-subsidized lease or loan
7. Seek approval of the Vessel Main Engine Fuel Incentive Program to provide financial incentives for the use of low-sulfur marine gas oil (MGO) or marine diesel oil (MDO) in vessel main engines
8. Construct the cold ironing infrastructure at all POLB container and cruise terminals and the BP liquid bulk terminal
9. Install shore-side power at the first POLB container berth at Pier G