## **Historical Perspective**

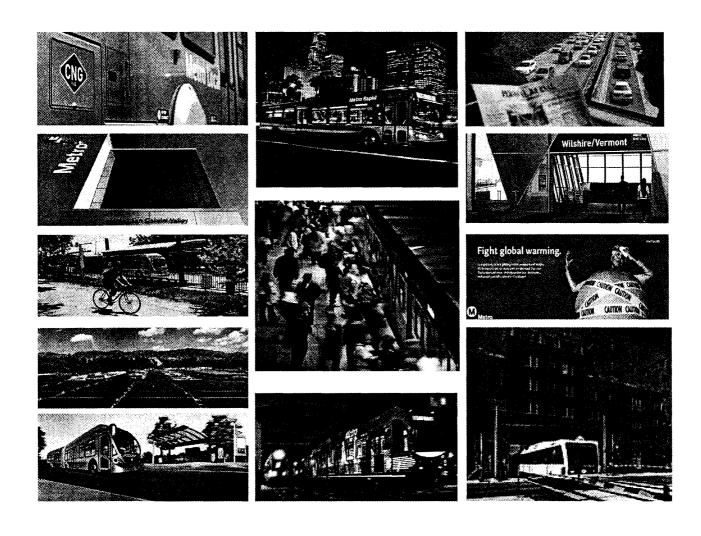
This policy was amended on June 26, 2008.

The Sustainability and Energy Policy adopted in June 2007 was an attempt to capture the essence of sustainability, as the term applies to the planning, construction, operations, and procurement practices. The creation of the Ad-Hoc Sustainability and Climate Change Committee in July 2007 provided the basis to develop an agencywide plan of sustainability implementation. Since September 2007, staff have reported accomplishments to the Ad Hoc Sustainability and Climate Change Committee and have coordinated efforts with the Clean Air Task Force. The Sustainability Mission and Vision Statements were adopted by members of the Ad Hoc Sustainability and Climate Change Committee at the January 2008 meeting. After the January 2008 meeting, staff evaluated the nature of previously identified sustainability initiatives. Based on staffs' understanding of the level of commitment needed for those initiatives, four specific top priority projects were identified as requiring resources in the form of staff and financial commitments. These four projects were included in the MSIP short-term plan. Staff is currently working on specific sustainability related projects such as the Sustainability Management System, solar photovoltaic array installation, Sustainability Design Criteria, and Climate Change Management efforts. In conjunction with key stakeholder input, key metrics, goals and targets will be developed as part of the first planned MSIP Progress Report.



## **ATTACHMENT A**

# METRO SUSTAINABILITY IMPLEMENTATION PLAN



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (LACMTA) June 17, 2008



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#### 1.0 INTRODUCTION

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is unique among the nation's transportation agencies, serving as the regional transportation planner and coordinator, designer, builder, operator, and funding partner for Los Angeles County. Our core mission is to ensure the continuous improvement of an efficient and effective transportation system for Los Angeles County.

In the next 25 years, Los Angeles' changing demographics and expected growth and climate change impacts are important reasons that will require us to shift our priorities towards a more sustainable transportation system. How we move around the county and the choices we have in where we can live, work, learn and play affects both our health and our budget. Our mobility choices will need to move beyond what we provide today in order to address the quality of life challenges and sustain our region's premier position in the global economy.

Since 1990, our County has experienced a transit renaissance with the development of innovative transit and transit-related infrastructure:

- We have developed almost 73 miles of rail transit connecting the communities
  of North Hollywood, Long Beach, Norwalk, Pasadena, Redondo Beach and
  dozens of points in between with downtown Los Angeles. In addition, 14 miles
  are under construction connecting the communities between Culver City and
  East Los Angeles to the regional rail network;
- We have partnered with Metrolink to provide rapid commuter rail service to over 35 communities in the County and beyond;
- We are expanding the network of bus rapid transitway corridors (Metro Rapid and Metro Orange Line ) that connect more communities together;
- We have partnered to develop the most extensive High Occupancy Vehicle (HOV) network in the nation;
- We have also partnered to develop the Alameda Corridor project, one of the best examples of coordinated goods movement; and
- Similar to our most recent projects, cities across the county are adopting mixed-use development and road design standards around transit stations and along transit boulevards to encourage a shift away from automobile dependency toward more walking, bicycling and transit use.

As a recognized leader in environmental responsibility, we have implemented many firsts for the industry. Years ahead of regulation, we operate the largest compressed natural gas (i.e., lowest carbon content fossil fuel) bus fleet in North America. In addition, we have installed solar photovoltaic arrays that currently generate over 850 kilowatts of renewable energy. A similar project that will produce one megawatt of renewable energy is currently in construction (the largest in the transit industry). We have also incorporated sustainability design elements in the construction and upgrades of various bus divisions, transit-oriented developments, the San Gabriel

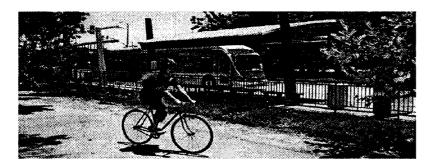
Valley Service Sector and Gateway Headquarters office buildings and for the Metro Orange Line transit/bike/pedestrian parkway.

We are at the forefront of developing a fully integrated sustainable transportation system. This type of system is one that is safe and easy to use, is accessible and affordable, operates efficiently, offers an interconnected, diversified choice of transportation modes (pedestrian, bicycle, transit, autos, car-sharing, goods movement), and supports and retains a vibrant economy, society and natural and built environment.

To do so, our strategy should be primarily centered on regional leadership, influence, coordination and partnership. While we have the ability to generate innovative projects through the development of design criteria and implementation of procurement and construction practices that complements the natural, social, and financial aspects of our environment; we do not have direct authority over land-use or vehicle fleet efficiency or fuels that influence regional travel behavior, motorized vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions. In addition, we have significant funding and programming authority and has leveraged this authority to influence policy and funding decisions at the local, state and federal level.

We will work with stakeholders countywide to develop key strategies that further enhance our ability to influence regional sustainability efforts. Our Countywide Sustainability strategies could include, for example, development of Sustainable Mobility Corridors and Sustainable Mobility Transit Boulevards policy. The objective would be to optimize the transportation services in a corridor to increase person and goods throughput, safety, and security while reducing energy, motorized VMT and GHG emissions. The focus would be to provide the most appropriate transportation mode for different trip lengths and purposes with strong linkages and information integration among transportation services and land-uses in the corridors.

We could similarly encourage the development of high ridership Sustainable Mobility Transit Boulevards that are supported by land uses and high quality road design standards that optimize transit, walking and bicycle ridership and reduce waste, energy, pollution and greenhouse gas emissions. We need to work with transportation and land use agencies and key stakeholders, countywide, to further develop these concepts and define other roles in which we can guide or influence more sustainable transportation systems. These and other elements inherent to our operations will be further elaborated below.



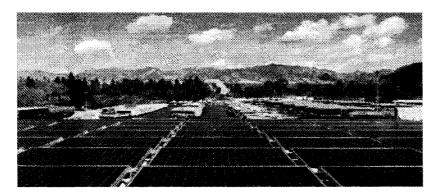
The Metro Orange Line/US 101 corridor is one example in concept of a Sustainable Mobility Corridor. The multi-modal transit/bicycle/pedestrian parkway runs parallel to the US 101 corridor. Since opening, 1/3 of new riders were former commuters on the US 101 freeway. The facility was built using sustainability principles and several mixed-use transitoriented developments are opening along the corridor.

## 1.1 Sustainability at LACMTA

Sustainability is a very broad subject and its impacts to the multi-modal public transportation system and the other systems in the County at large are numerous and extend into all business functions within our agency. In its most basic definition, sustainability is achieved when we meet the needs of the present without compromising the ability of future generations to meet their own needs. When it comes to transportation, sustainability is focused on the continuous integration of decisions, infrastructure and services that optimize the transportation system to maximize efficiency, access, safety and performance while minimizing energy use and consumption, air, water, and noise pollution and the generation of waste.

In order to apply these sustainability principles and strategies in our core transit operations, regional construction, and transportation planning programs, we have to look into all of our business units, departments and existing policies to understand how they interact with one another in order to create an agency-wide sustainability program. When properly implemented, each business unit and department's functions and policies are put into focus and collectively integrated, enhancing our ability to fulfill its core mission and regional sustainable mobility objectives.

In addition to applying these strategies voluntarily, several regulatory processes such as the AB 32 Global Warming Solutions Act greenhouse gas emissions targets, the Office of Planning and Research Climate Change regulations for the California Environmental Quality Act, the next Federal Re-authorization process and Federal Climate Change bills currently being debated in the Senate and Congress will impact our planning and programming, construction and operation activities. A dedicated and coordinated effort by all of our units will ensure that the agency is positioned to focus attention in these emerging regulatory processes.



#### 1.2 Mission and Vision Statement

Recent achievements such as the adoption of the Sustainability and Energy Policy in June 2007 were an attempt to capture the essence of "sustainability", as the term applies to us. The creation of the Ad-Hoc Sustainability and Climate Change Committee in July 2007 provided the basis to develop an agency-wide plan of sustainability implementation. Since August 2007, staff continually reported

accomplishments to the Ad Hoc Sustainability and Climate Change Committee and the Air Quality Task Force. In order to proceed with these programs, staff recognized that a Metro Sustainability Implementation Plan (MSIP) needs to be adopted by the Board of Directors. Similar to other transportation plans, the MSIP has a short-term and a long-term set of actions.

These sets of actions are consistent with the Mission and Vision Statements adopted by the members of the Ad Hoc Sustainability and Climate Change Committee during the January 2008 meeting. These are as follows:

## Vision for Sustainability

We will be the leader in maximizing sustainability efforts and its benefits to Los Angeles County's people, finances and environment.

## Sustainability Mission

We will provide leadership in sustainability within the Los Angeles region without compromising our core mission of moving people efficiently and effectively.

The elements of the plan outlined in the succeeding pages formally and specifically address sustainability through Climate Change Management, Energy Management, and other Sustainability Program Support Efforts. This plan is designed to demonstrate to our employees, stakeholders, customers and the general public, our continuing commitment to Sustainability through Fiscal Responsibility, Social Equity and Environmental Stewardship. The plan emphasizes our leadership role as both a Transit and Transportation industry leader.

## 2.0 Organization

## 2.1 Staff Organization

Sustainability elements are already present and are being implemented. However, there is currently no coordinated effort to account for such efforts, nor is there an agency-wide system to formally identify, measure and report the cost and benefits of implementing these elements. Recognizing the need throughout the last year, staff had developed an organization plan to organize a sustainability program into three distinct categories: Air Quality and Climate Change, Energy Efficiency and Renewable Energy Efforts, and Programmatic Support Efforts (Figure 1).

The Board of Directors recently adopted a budget of \$250,000 to supplement our current sustainability program and implement the MSIP. Staff anticipates reinvesting back into the program any cost-savings that may be generated as the result of any implemented sustainability activity. In addition, the Board also adopted the creation

of two full-time equivalent positions (FTE's) to assist in the implementation of this sustainability program.

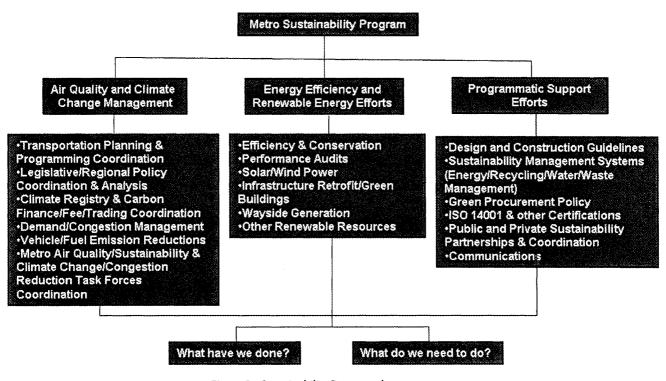


Figure 1. Sustainability Framework

One FTE will work in the Countywide Planning Business Unit as the regional transportation policy and programming coordinator and clearinghouse for legislative and policy activities related to the MSIP. In addition, the FTE will coordinate, survey and liaise with key public, business, and community stakeholders toward the development of GHG emission and sustainable mobility based protocols, best management policies, guidelines, and partnerships and identify potential funding opportunities in addressing regional air quality and climate change protection goals.

The other FTE will work in the Construction Business Unit to be the point of contact and clearinghouse for all other information related to the implementation of the MSIP, and will be responsible for implementation of the proposed Sustainability Management System (SMS) discussed below. This FTE will coordinate and support the implementation of specific projects and programs related to all energy, infrastructure, procurement, sustainable construction, and sustainable operations. Implementation of these projects will take into account information gathered from close coordination with the other FTE, our business units, public and private stakeholders, industry, and the regulatory community.

#### 2.2 Clean Air Task Force

The Clean Air Task Force was created by the Board in 2006 to specifically identify opportunities for reducing our greenhouse gas emissions. This Task Force comprises representatives from Operations, Construction, Planning, Facilities and Government Relations.

In order to maximize our clean air efforts, the Task Force has been compiling a comprehensive baseline set of data documenting our total emissions output or "footprint". Discussions regarding the registration of this "Emissions Footprint" with the California Climate Action Registry started in early 2007. Since then, the decision to register instead with The Climate Registry has been discussed as this entity has grown to become the North American verifier of any subscribing organization's GHG emissions footprint. The Climate Registry is a non-profit partnership currently consisting of regional North American jurisdictions and entities.

Although the Clean Air Task Force is in the final stages of compiling the Emissions Footprint, there is an outstanding issue with the registry's protocols to provide a mechanism where the emissions saved from people taking transit can be counted against the emission generated to provide the transit services. The development of a transit specific protocol to address this issue has been coordinated by APTA, other U.S. transit operators, The Climate Registry, and us. It is anticipated that a transit specific protocol will be adopted by this fall.

Most recently, the Task Force has been discussing the status of pending Zero Emission Bus regulations with California Air Resources Board (ARB) staff, and is helping lead a new Zero Emissions Transit Users Group (ZETUG) that will help represent all California-based operators of alternative fueled transit fleets. The Clean Air Task Force's activities fit into the Climate Change Management component of our sustainability efforts.



## 3.0 Programs and Specific Projects

## 3.1 Short-Term Plan

Staff had previously recognized the need to develop projects to further our efforts towards sustainability. In staff's previous reports to the Ad Hoc Sustainability and Climate Change Committee, staff identified various activities that have been initiated, are being implemented, or are being conceptualized. Based on the understanding of the level of commitment needed for those initiatives, four specific projects were identified for continued implementation or commencement in Fiscal Year (FY) 2009. These are as follows:

- LACMTA and Countywide Greenhouse Gas Emissions Management which
  consists of developing and measuring the agency's GHG emissions footprint,
  monitoring, coordinating and providing input into the various local, regional,
  state and federal organizations developing Climate Change policy and
  regulations impacting our planning and programming, construction and
  operating activities, and developing nationwide transit industry protocols for
  registering GHG emissions prior to participation in The Climate Registry.
  Protocols are likely to include offsetting VMT and mode-shifting to better reflect
  public transit's role in reducing greenhouse gas emissions. Registration of
  Metro's GHG emissions will better position the agency to avoid risk and
  participate in future carbon cap and trade programs;
- Energy Sustainability Initiatives which include energy conservation initiatives; planning, feasibility studies, and installation of additional solar panels at various bus and rail divisions; and exploration of other renewable resources (i.e. wind, cogeneration, fuel cells, etc.);
- Development of Sustainability Design Guidelines that will be used to incorporate and implement core sustainability elements into our design and construction projects that are currently not developed for linear projects (i.e., rail, busway, or highway related projects); and
- Development and Implementation of Sustainable and Environmental Management Systems that include the development of a Sustainability Management System (SMS) pilot study for Division 10 and an additional Environmental Management System (EMS) pilot implementation through a Federal Transit Administration assistance program.

## 3.2 Long-Term Plan

Our current sustainability projects will provide the basis for the implementation of the longer-term sustainability projects. Staff will commence in FY 2009 the planning for each of the following longer-term key priority project upon Board approval, funding and key stakeholder input.

Table 1. Projected Sustainability Programs and Projects FY 2009-FY 2013

Category	Project #	Projected Sustainability Programs and Projects
	1	Programmatic Implementation of Regional, Statewide, and Federal Policies (statutes, regulations and other agreements).
	2	Development with key stakeholder partnerships of a Climate Change Action Plan that will identify climate change mitigation and adaptation goals and strategies to reduce GHG emissions and adapt the multi-modal transportation system investments to the effects of climate change.
Air Quality and Climate Change	3	Assembly Bill 32 Scoping Plan/Federal Re-authorization/Federal Climate Change and related legislation and sustainability policy integration into new local funding measures, Call for Projects, Long Range Transportation Plan and all other planning and programming policies.
Management	4	Development with stakeholder input as set of implementation tools such as Sustainable Mobility Corridors and Sustainable Mobility Transit Boulevards as strategies to optimize and prioritize regional transportation system investments.
	5	Development with stakeholder input a set of integrated land use/transportation/energy policies to optimize the sustainability of regional transportation system investments and refine modeling software or other measurement tools to help determine what investments result in the highest sustainability benefits.
Energy Efficiency and	6	Enhance our Energy Portfolio by developing and exploring other sources of renewable energy (e.g., solar panels, wind, regenerative braking and other capture technologies).  Perform energy audits, implement energy efficiency methods and dvelop a
Renewable	7	comprehensive and energy security strategy.
Energy Efforts	8	Identification and pursuit of renewable energy and sustainability demonstration grants, projects and new funding opportunities.
	9	Develop a comprehensive Sustainability Management System (SMS) that would become the platform for our agency-wide enhanced Environmental Management System.
Programmatic	10	Implement Division 10 Improvement Projects identified during the EMS development.
Support	11	Develop the Sustainability Design Policy and Criteria for Joint Development Projects.
Efforts	12	Roll-out of Enhanced EMS at Bus Divisions.
	13	Development of Rail Division EMS Pilot Project.
	14	Development of Green Procurement Policy and Greening the Supply Chain.
	15	Communications and Outreach Program Implementation.

#### 4.0 MSIP Communication and Outreach

As a major influence on the transportation landscape and imprint of Southern California, we recognize the need to be in the forefront of sustainability and climate change as it relates to the County of Los Angeles. As such, we must take bold and immediate steps toward implementing the MSIP. As we are working toward this aim, there is the need to educate its employees, particularly our workers at the sixteen (16) bus yards and two (2) rail yards who will be the ultimate leaders in training those who work on the lines at all our Divisions, as well as the staff making daily and strategic business decisions within the various units.

Equally as important is informing the public about the new direction in which we are progressing. We will continue to engage the public through our various campaigns generated through the Communications Department. We will enhance the features of our website (<a href="www.metro.net/sustainability">www.metro.net/sustainability</a>) this coming fiscal year to include useful and valuable information related to sustainability and climate change. In addition to outreach via marketing programs, the existing rideshare and regional coordination programs will need to be enhanced to increase the awareness and application of sustainable mobility principles.



#### 5.0 Deliverables

To measure the success of our short-term plan, we shall produce the following deliverables:

a. Two semi-annual Progress Reports that will compile and analyze the forecasted and actual progress of project implementation and variance information for each activity. The First progress Report will also include specific metrics against which we will measure our success and outline progress. The Second Progress Report shall consist of our Annual Sustainability Report and Report Card outlining our compliance and progress toward previously established metrics:

- b. Report outlining all of our legislative and regional coordination and policy development efforts relating to Climate Change and Greenhouse Gas Emissions Management;
- c. Organization of the Second Annual Sustainability Summit to measure the progress of previously identified regional coordination efforts;
- d. Report detailing the following energy related activities:
  - Number of energy audits completed throughout the agency and planned implementation of energy efficiency programs that can be applied as a result of such audits;
  - ii. Coordination with utility companies in understanding the applicability of utility cost-reduction methods; and
  - iii. Progress in the efforts to increase our energy portfolio either in the installation of previously adopted renewable energy projects or results of feasibility studies to install other types of renewable energy sources on our facilities.
- e. Completion of the Metro Support Services Center (MSSC) Solar Energy and Infrastructure Upgrade project, which is a public/private partnership to install one megawatt of solar panels and energy efficiency upgrades aimed to cut our MSSC electrical bill by 46%. This project was approved by the Board in January 2008, started construction in May 2008, and will be completed within the Third Quarter of FY 2009;
- f. Completion and implementation of our Sustainability Design Criteria and track our compliance to our Energy and Sustainability Policy, Construction and Demolition Debris Recycling and Reuse Policy, and in all of our capital projects. Applicable projects include the preliminary engineering and construction of the Canoga Transportation Corridor Project, and any future transportation corridor projects. As required by the Energy and Sustainability Policy, non-linear projects such as new buildings, joint developments, or major facility upgrades shall be constructed to achieve the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver Rating, at minimum;
- g. Completion of the Division 10 Environmental Management System. An audit of Division 10 to prepare it for ISO 14001 certification is anticipated to commence at the end of FY 2009. ISO 14001 specifies the most important requirements to identify, control and monitor the environmental aspects of any organization, and also how to manage and improve the whole system. Being ISO 14001 certified not only validates our efforts for reducing costs but most importantly, demonstrates our commitment to environmental responsibility and proactive risk assessment; and

h. A report outlining progress in the implementation of the EMS identified improvement projects at Division 10. Cost savings in the order of magnitude of mid-hundreds of thousand dollars is anticipated once fully implemented.

## 6.0 Schedule

Staff proposes the schedule outlined in Figure 2 for its short-term plan to ensure that our programs are consistent and coordinated with on-going regional sustainability efforts. This will be accomplished through the implementation of parallel efforts for involving policy and legislative coordination simultaneous with infrastructure construction. Schedule for the long-term plans will be developed during FY 2009.

Figure 2. FY 2009 Sustainability Implementation Project Schedule

				FY09: 2008						FY09: 2009							
Deliverable:	Projected Completion Date	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
First Semi-Annual Progress Report including GHG Baseline and Metrics	Dec-08																
Second Semi-Annual Progress Report	Jun-09																
and Regional Coordination Efforts	Jun-09																
2nd Annual Sustainability Summit	May-09																
Energy Audit and Utility Coordination Reports	May-09																
Services Center Solar Energy Project	Sep-09																
Environmental Management System	Dec-08																
Report Outlining Progress of Implementation of Division 10 Opportunities Identified during the Division 10 EMS	May-09																