Los Angeles County
Metropolitan Transportation Authority

Staff Overview of Sustainability and Climate Change Issues in Transportation

Ad Hoc Sustainability and Climate Change Committee
September 26, 2007

Metro

Today's Discussion

- Introduction and Background on "Sustainability"
- Update on Metro's Sustainability Projects
- Transportation Implications on Sustainability & Climate Change
- AB32 and Related Policy Issues for Metro
- Update from the Clean Air Task force
- Environmental Management Systems Program
- Proposed Goals and Objectives
- Next Steps for Metro in Sustainability & Climate Change Response

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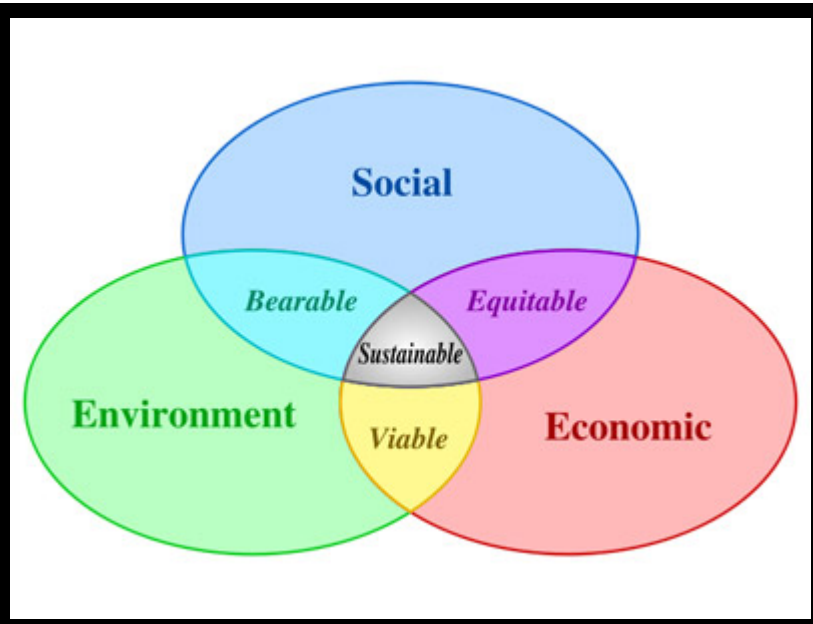
Sustainability



Formal Definition

sus·tain·abil·i·ty *noun*

2a: of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged <*sustainable* techniques> <*sustainable* agriculture> circa 1727 *Merriam-Webster*

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Sustainability

Practical Definition

Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainability on a global level is about human survival within the ecosystem.

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Sustainable Transportation

How can Metro focus on sustainability as we provide transportation options for the County?

- Sustainability in Transportation Planning & Programming
- Sustainability in Transit & Facility Operations
- Sustainability in Procurement, Design & Construction

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What has Metro Accomplished?

- 2.1 million trips on LA County transit system
- Largest CNG fleet in nation 2,346 vehicles = 90% less emissions than older diesel bus
  - CNG is the lowest carbon content fossil fuel
- 73 mile rail system with two extensions under const.
- Hybrid buses & New Rail Vehicles with Regenerative Braking
- 6 gas/hybrid & 4 Hydrogen/CNG mixed fuel buses
- Energy Efficiency and Solar Power generation retrofit projects
- LEED Silver Minimum for new Metro Facilities and Transit Oriented Develop projects
- Funded over 250 miles of Bike Paths
- Water and Energy saving devices in buildings
- Hybrid fleet
- Rideshare programs

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What has Metro Accomplished?

Largest fleet of clean air CNG buses in the nation.....

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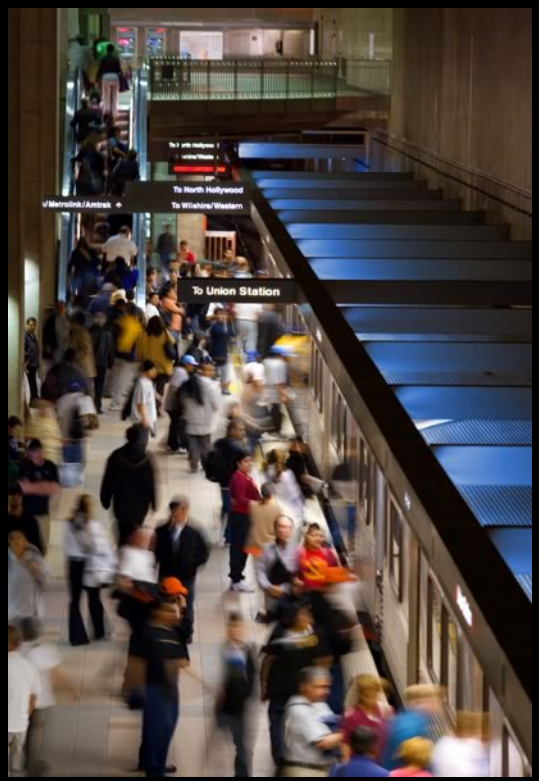
What has Metro Accomplished?

Metro designed, built, and is expanding one of the largest transit systems in the nation.....



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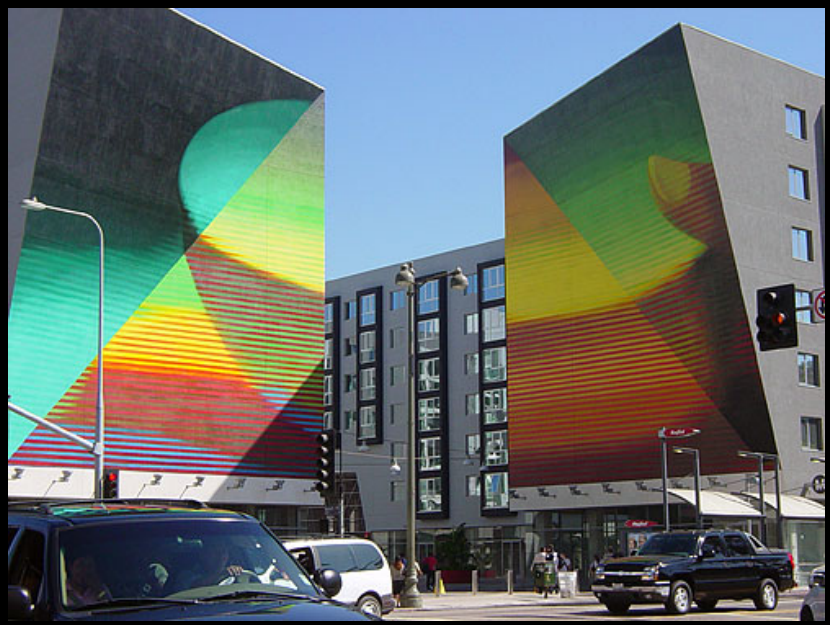
What has Metro Accomplished?

Metro is aggressively developing transit-oriented development projects at our transit stations.....



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What has Metro Accomplished?

Metro recently completed our first facility built in accordance with LEED Building Standards.....

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What has Metro Accomplished?

Metro has built the largest solar generation facility in the transit business.....

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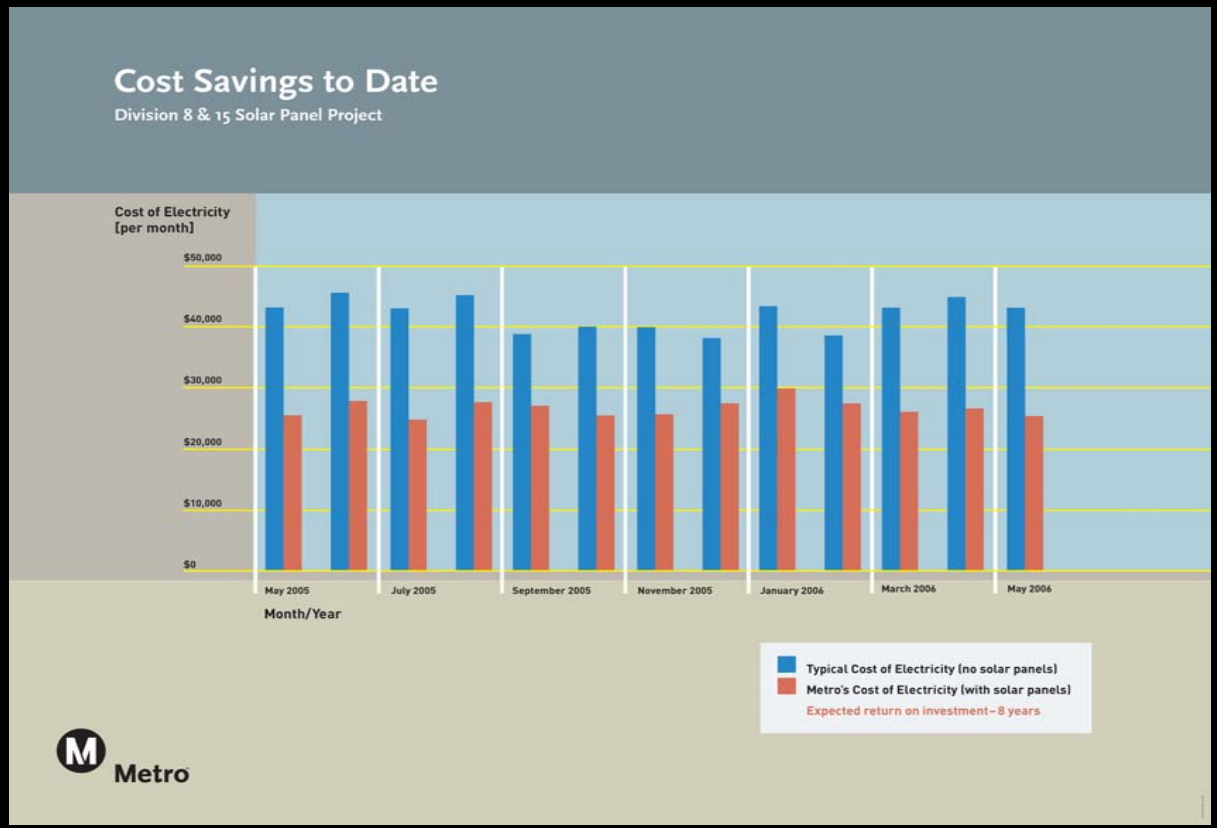
What has Metro Accomplished?



- Saves $165,000 in electricity costs per year
- Through incentives, Metro paid only 45% of capital costs
- Return on investment is less than 8 years

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What has Metro Accomplished?

And we are building two more.....

- Division 18, Carson, CA
- 417 kW or 1600 panels
- Completes November 2007
- Saves 300K/year with 11 year ROI

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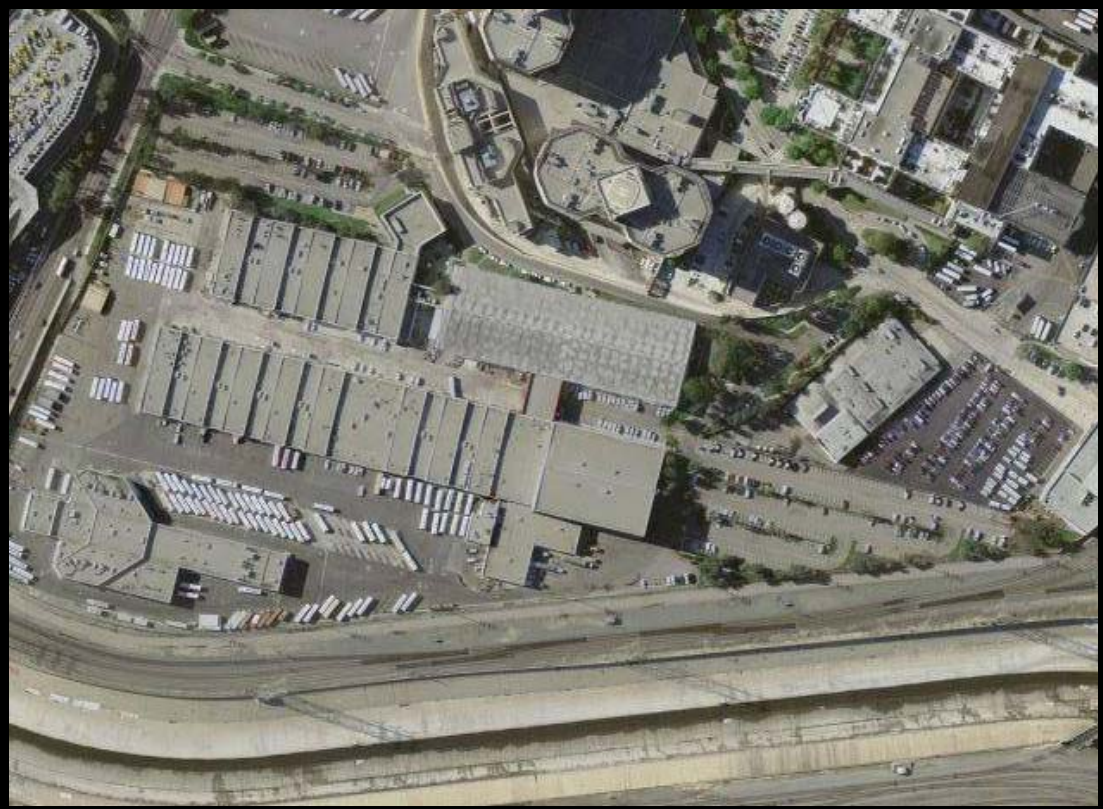
What has Metro Accomplished?

Metro Support Services Center (formerly RRC)



- 1 megawatt (1000) in Solar Panels
- Replace all lighting and mechanical equipment
- Public/Private Partnership with savings guarantees
- Board Approval: October 2007

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What has Metro Accomplished?

Metro retrofitted all escalators with power-saving motor controllers to save energy costs.....

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What has Metro Accomplished?

Metro built the Orange Line using sustainable construction techniques.....

From Brownfield to Busway

Approach to the I-405 Freeway

Van Nuys Station

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What has Metro Accomplished?

Metro built the Orange Line using sustainable construction techniques.....

Landscape irrigation infrastructure for future conversion to reclaimed water

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What has Metro Accomplished?

Metro built the Orange Line using sustainable construction techniques.....

Use of mostly drought-tolerant landscaping
to decrease long term water use & thousands of trees
to reduce heat and emissions

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What has Metro Accomplished?

Metro built the Orange Line using sustainable construction techniques.....

Recycled concrete and asphalt pavement rubble for use as road base

What has Metro Accomplished?

Metro built the Orange Line using sustainable construction techniques.....

Use of drainage swales rather than curb and gutter draining directly to a storm drain

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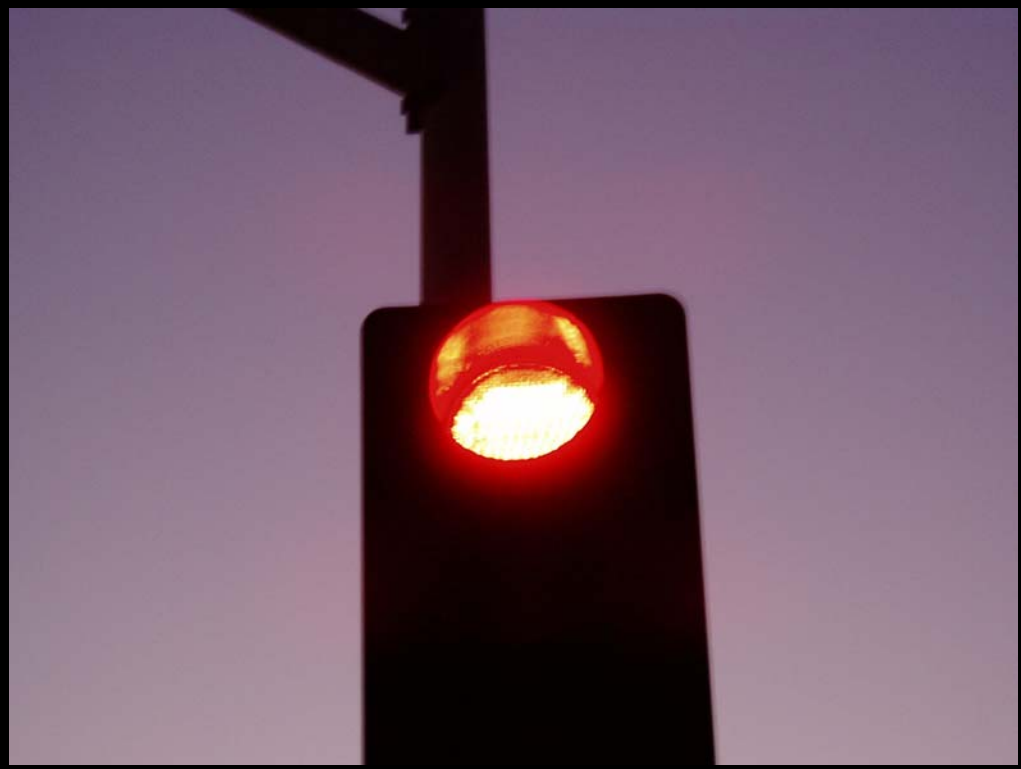
What has Metro Accomplished?

Metro built the Orange Line using sustainable construction techniques.....



Use of light emitting diode type light sources in traffic signals

What has Metro Accomplished?

And we have also accomplished……

- Division Lighting Upgrades
- Division HVAC Upgrades
- Gateway Building Energy and Water Efficiency Upgrades
- Preparing RFP for agency-wide solar power purchase agreements
- Waste Chemical and Material recycling programs
- All diesel buses remaining use ultra low sulfur diesel fuel
- All paints used are low VOC
- Advanced Transit Vehicle Consortium Projects

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Sustainability Policy

And in June 2007 the Board adopted the Energy and Sustainability Policy.....

- Metro commitment to responsible energy management, renewable energy sources, energy efficiency, water conservation, environmental stewardship, and general sustainability in our operations.
- Requires LEED Silver for all new buildings over 10,000 SF
- Requires sustainable practices in construction of linear and other projects where LEED does not (yet) apply
- Captured the “essence” of sustainability at Metro, and now Ad Hoc Committee will provide the basis and direction to develop an agency-wide plan to implement sustainability

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Going Forward.....

And with all of these accomplishments, there is MUCH work to be done.....

- **Policy issues related to Assembly Bill 32, that will have a major impact on Metro.**
- **No coordinated Sustainability effort at Metro, all business units must be evaluated to coordinate effort.**
- **No current system or goals at Metro to formally measure & report the cost impacts & benefits of implementing Sustainability & Climate Change Strategies.**
- **Metro must provide leadership in Sustainability within the region to complement our core mission of moving people efficiently & effectively**

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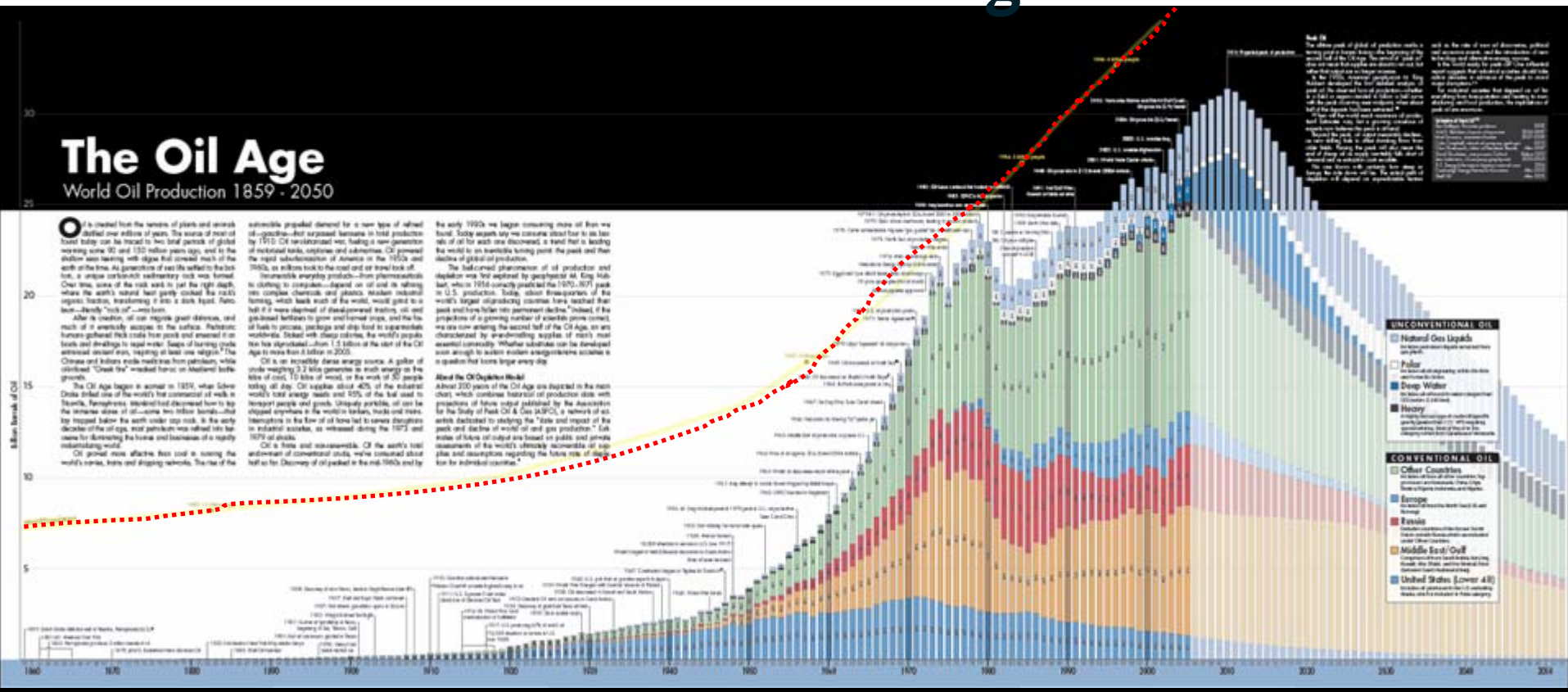
Transportation Implications on Sustainability & Climate Change



Peak Oil production is expected some time this decade

Transportation is totally reliant on fossil fuels

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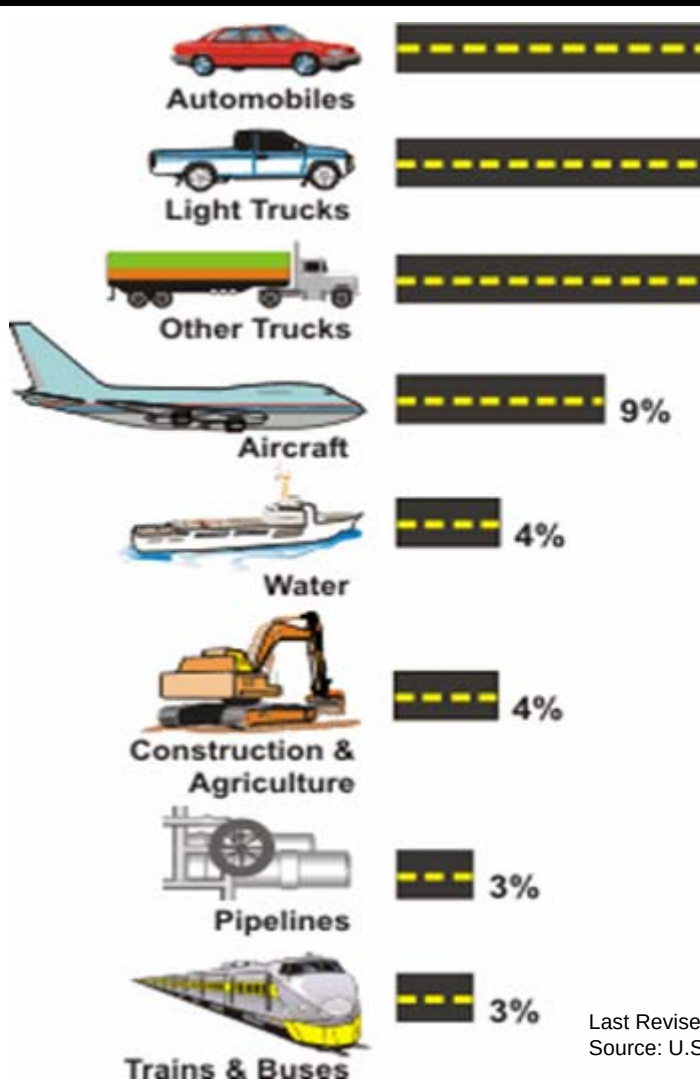
Energy Consumption by Transportation Mode



Fastest growing sector 27% of total global energy consumption

55% of oil goes to power the world's auto, truck, plane, ship & train fleet currently at 600 million.

99.9% by fossil fuels

Last Revised: October 2004
Source: U.S. Department of Energy, *Transportation Energy Data Book*: Edition 23.

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What is Climate Change?

Definition:

The shift of the "average weather" and the variability of temperature, precipitation, and wind for a region over a period of time.

How:

Water vapor, Carbon Dioxide (CO2), Methane (CH4) and Nitrous Oxide (N2O):

-absorb heat radiated from the Earth's surface to create the greenhouse effect.

-regulate the earth's climate and without them the earth's surface would be about 61◦ F (34◦C) colder on average.

Concern:

Exponential consumption of fossil fuels (oil, coal, natural gas, wood etc.) dramatically increased atmospheric concentration of some GHG causing Global Warming.

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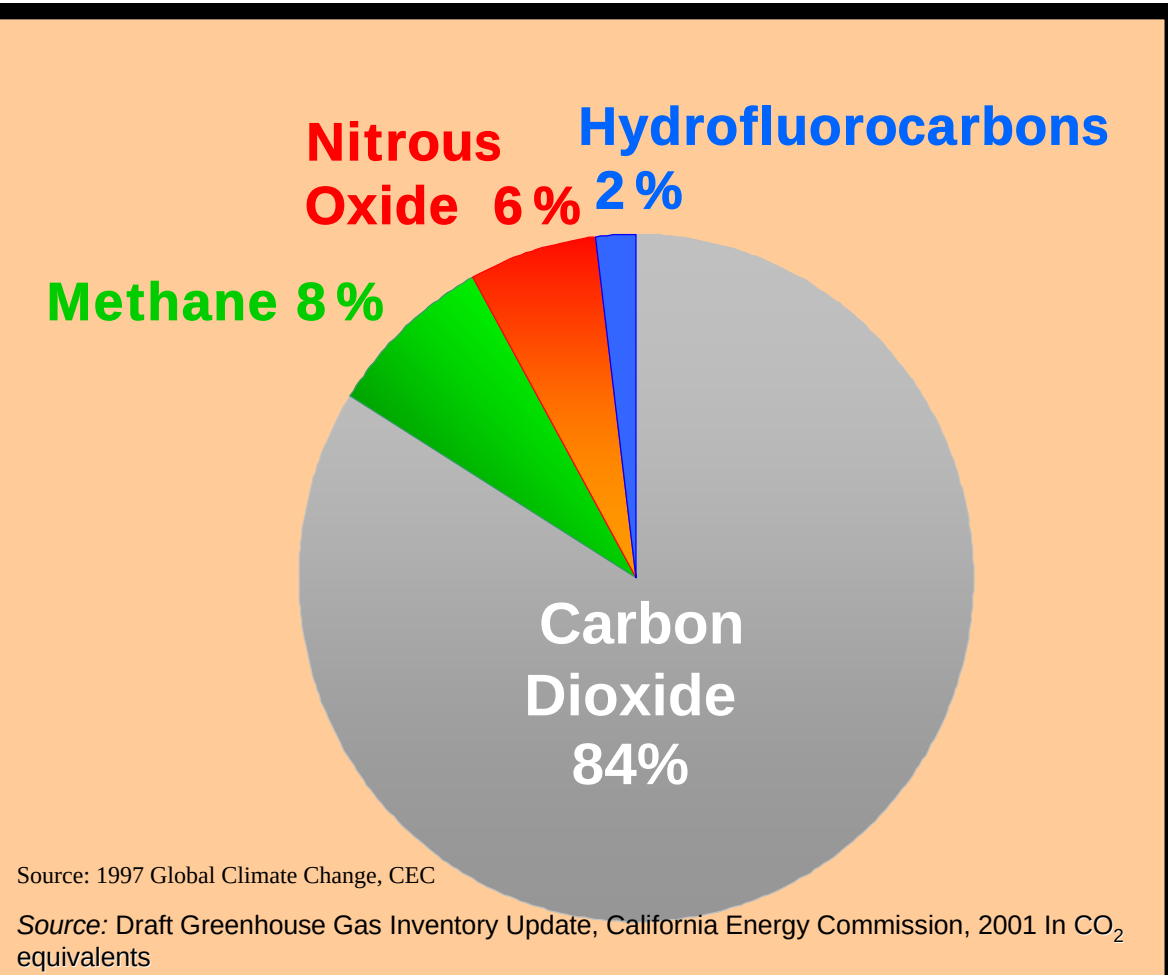
California Greenhouse Gas Emissions



Source: 1997 Global Climate Change, CEC

Source: Draft Greenhouse Gas Inventory Update, California Energy Commission, 2001 In CO_2 equivalents

Sources

- Carbon Dioxide (CO_2)
  - Fossil fuel combustion
- Methane
  - Fossil fuels
  - Landfills, agriculture
- Nitrous Oxide
  - Agriculture, cars
- Hydrofluorocarbons
  - Refrigerants, solvents

Smog
Nitrogen Oxide (NO2) and Volatile Organic Compounds (Methane/Non-Methane) to create Ozone (O3).

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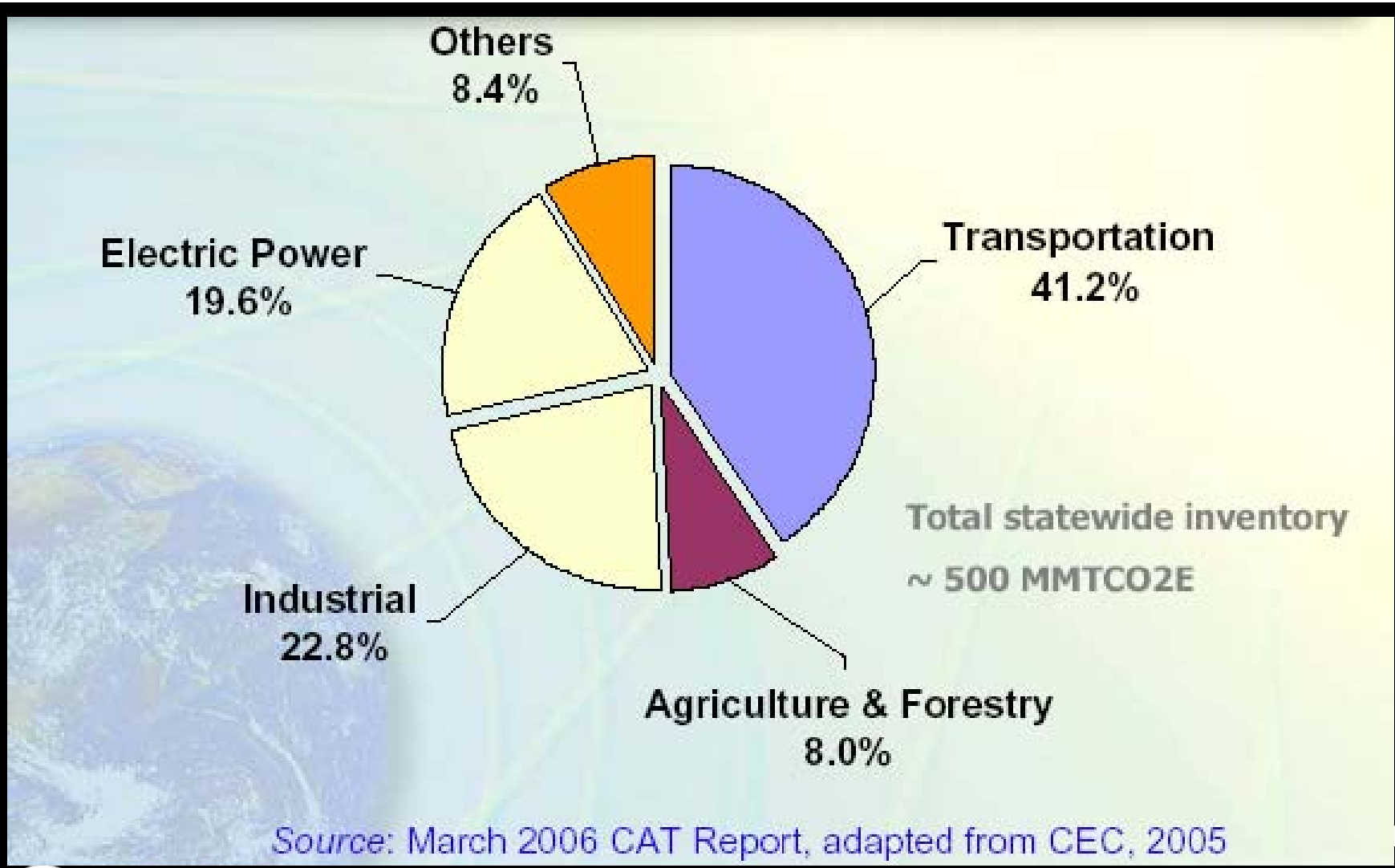
Transportation Is California's Largest Source of CO2



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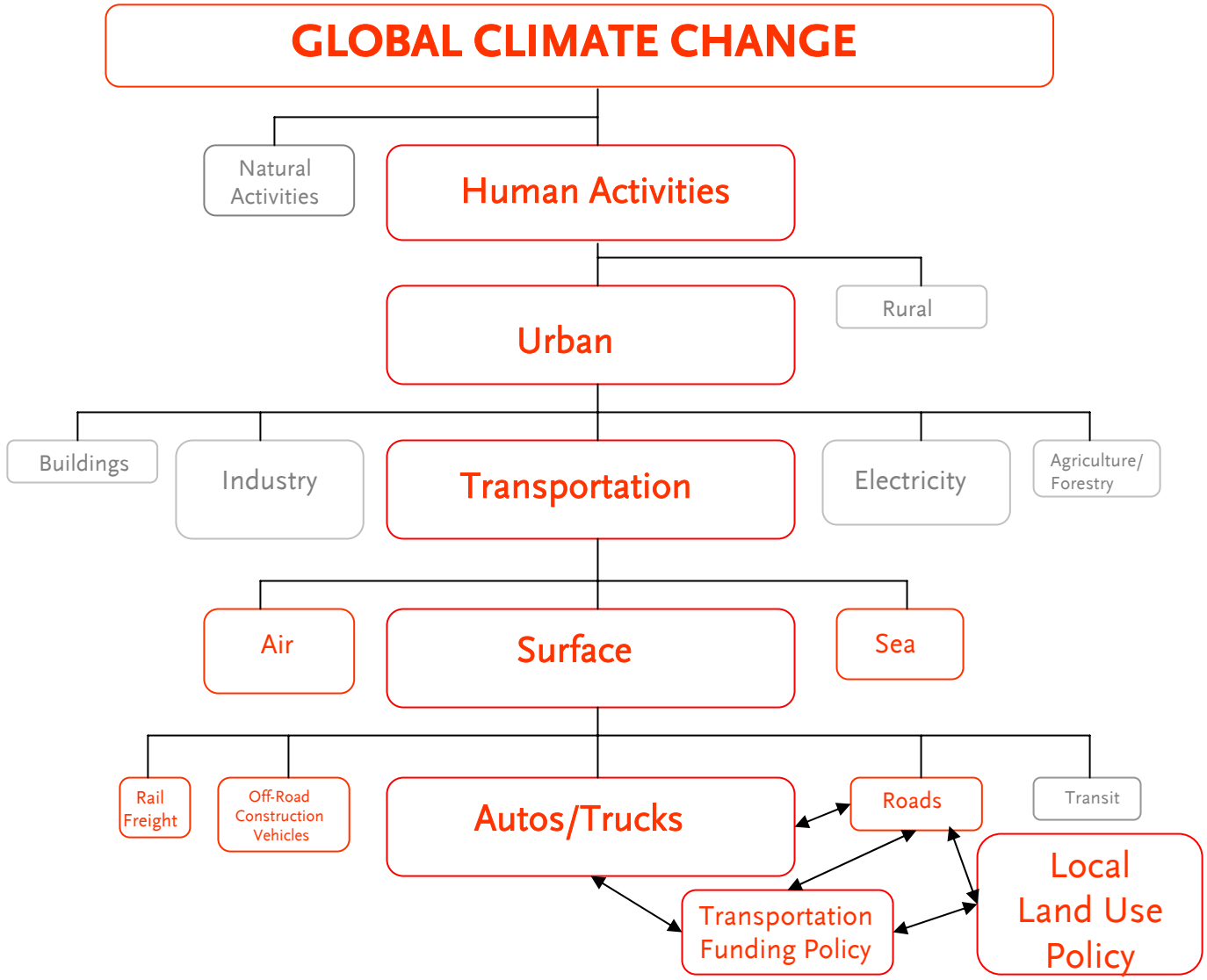
Transportation Sources of Greenhouse Gas Emissions



Local Land Use & Transportation Funding Policy Heavily Influences Travel Behavior

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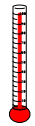
Produced By: Timothy Papandreou 8-14-07 Metro Countywide Planning

Impacts of Climate Change for Los Angeles

Climate Changes



Temperature Increase

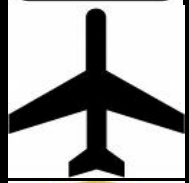
Precipitation Patterns and Extremes

Sea Level Rise

Source: Anne Grambsch, 1998

Public Health & Air Quality – More Heatwave & Respiratory Illness, Diseases

Rising tides & violent storms- LA/LB Ports 43% of US trade.



Sea Level and Violent Storms
LAX- World's 5th Busiest Airport

Costs to protect/evacuate Forest Adjacent & Coastal Communities

Reduced Water Supply, Quality & Increased Costs

Increased Energy Supply costs/Stress on infrastructure

Hardest on poor, minority residents, exacerbating existing economic & social inequalities.

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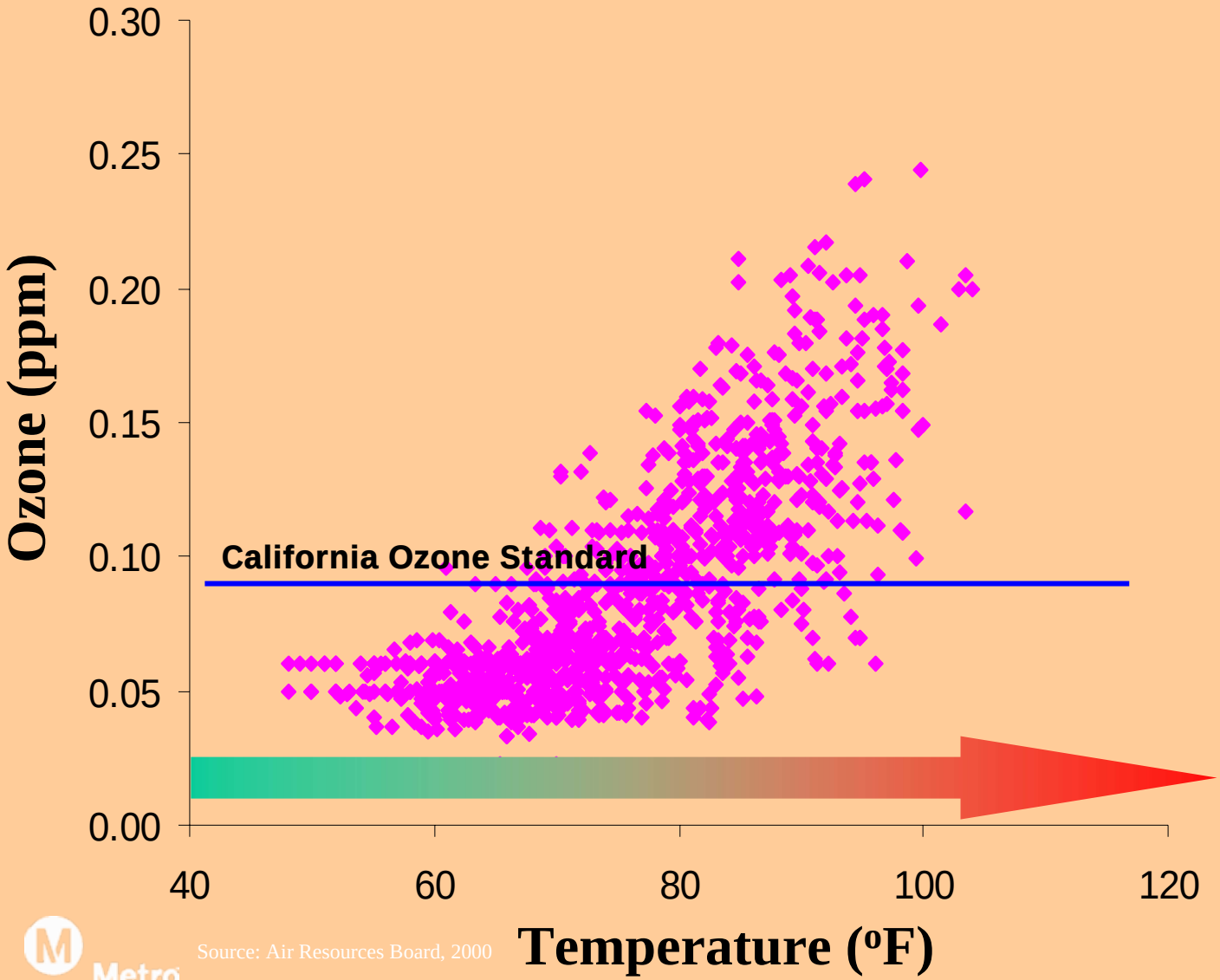
Hotter Days Lead To More Smog Related Illnesses

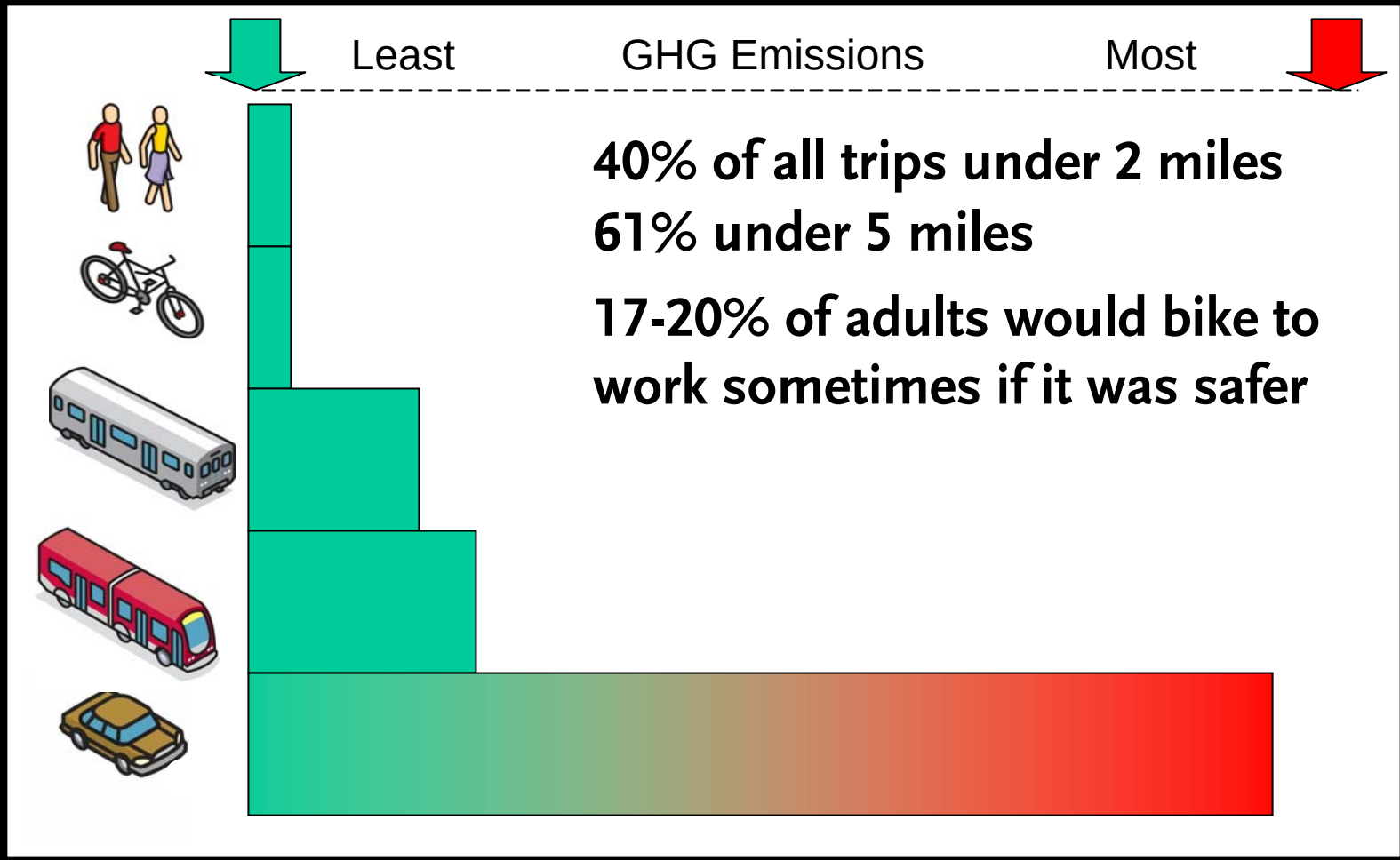


Los Angeles Ozone Levels (1995-1998)

Source: Air Resources Board, 2000

Source: California Environmental Protection Agency

Transportation Emissions by Mode



Walking, Bicycling and Transit is the most sustainable form of transportation

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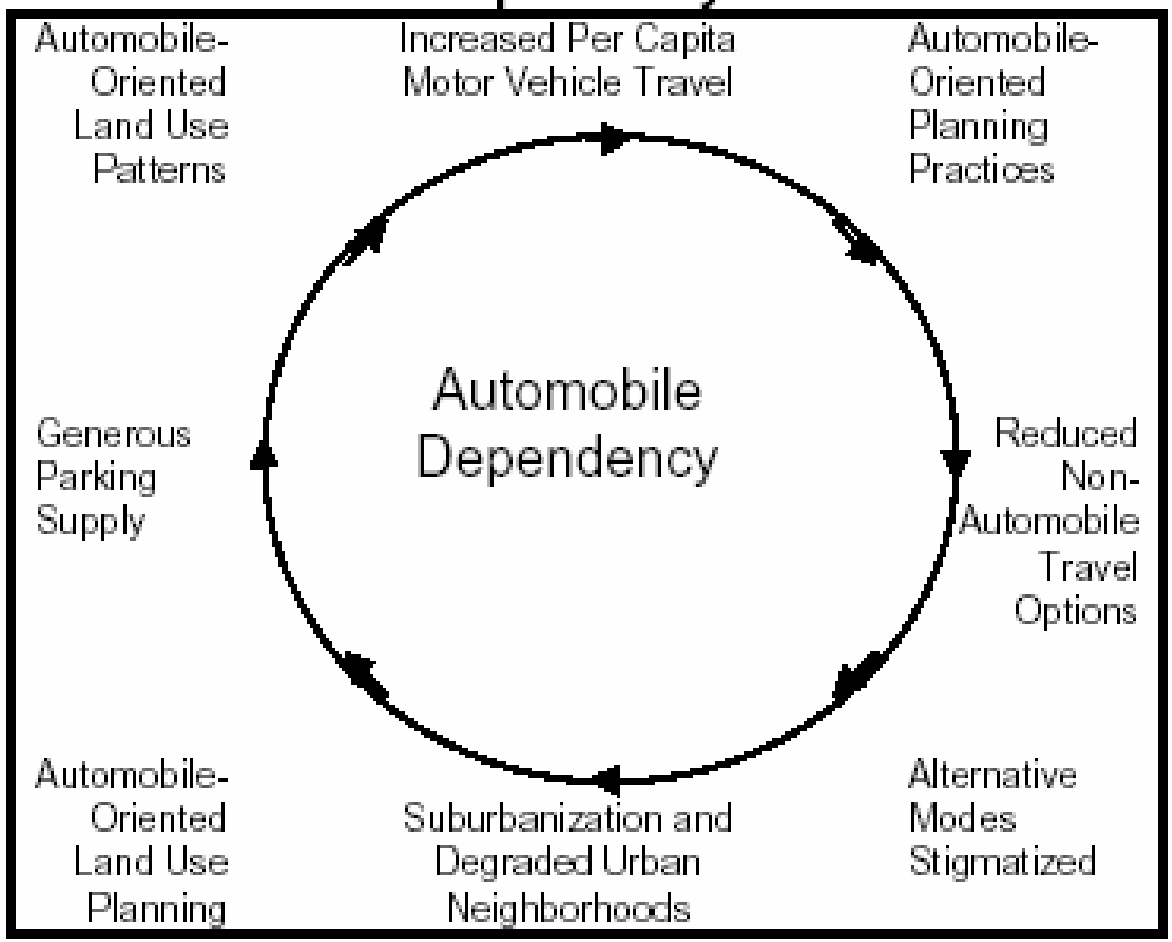
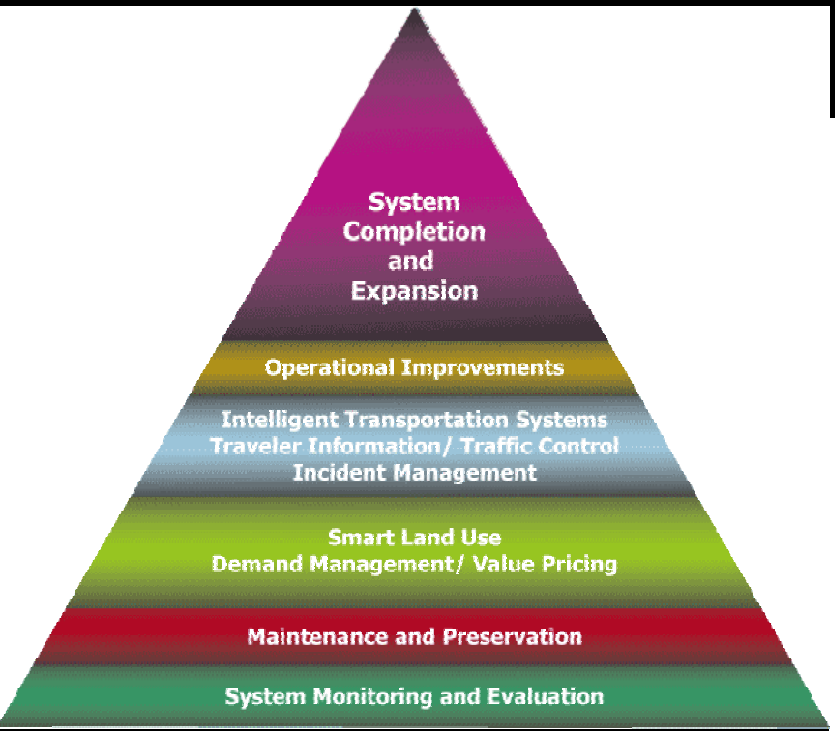
Land Use Cycle of Automobile Dependency

Figure 3 **Cycle of Automobile Dependency**



Individual market distortions reinforce the cycle of automobile dependency, leading to economically-excessive automobile ownership and use.

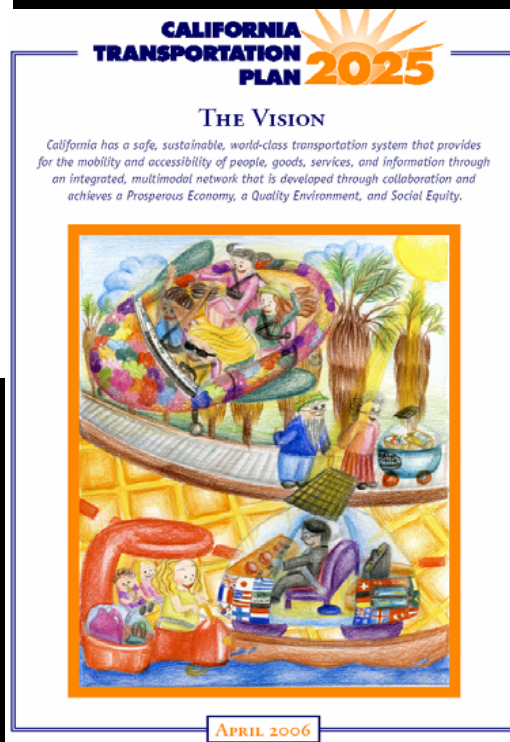
Timeline to AB 32 Inception



*Go*California

California Climate Action **Plan**

CALIFORNIA Climate ACTION TEAM



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California Transportation Plan

Timeline to AB 32 Inception

- **October 2001: The California Climate Action Registry was established by SB 1771 & SB 527 to:**
  - **Help companies & organizations with operations in the state to establish Greenhouse Gas Emissions (GHGE) baselines and credits against which any future reduction requirements may be applied.**
  - **(300 members registered national standard underway)**

- March 2005: GoCalifornia Initiative identifies Smart Growth/Vehicle Miles Traveled reduction strategies as key to sustainable infrastructure development.

- June 2005: Executive Order S-3-05 the State of California officially recognizes Global Warming. Establishes California Climate Change Action Team made up of state's business units.

- The Executive Order established greenhouse gas targets:
  - By 2010, Reduce to 2000 Emission Levels
  - By 2020, Reduce to 1990 Emission Levels
  - By 2050, Reduce to 80 percent Below 1990 Levels

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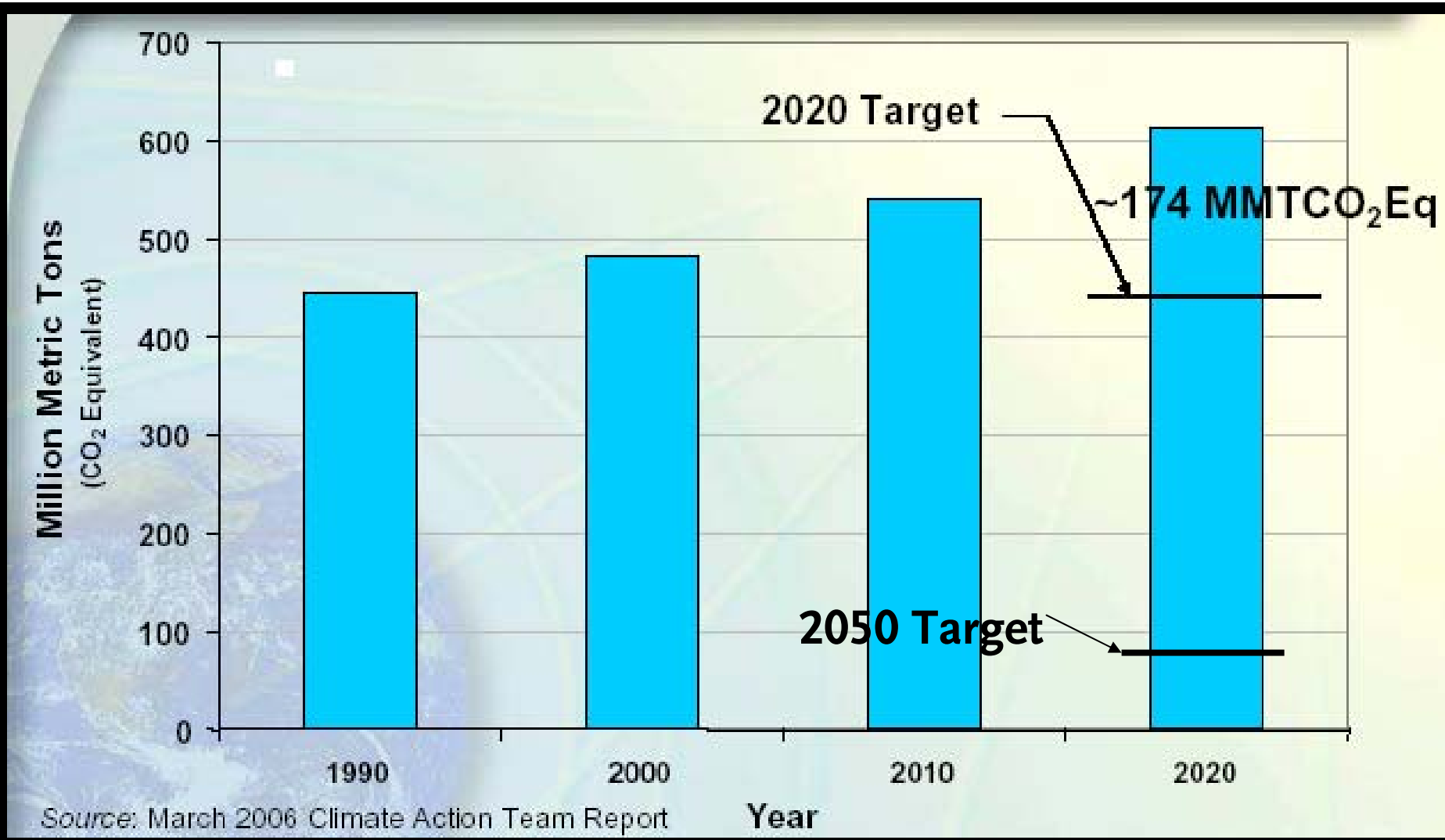
Magnitude of the Challenge



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Timeline to AB 32 Inception

- March 2006: California Climate Change Action Plan sets emission reduction targets for each unit.
  - Identifies Transportation Sector as most significant contributor (41 %) of carbon dioxide emissions.
- April 2006: California Transportation Plan incorporates GoCalifornia & Climate Change Report
- July 2006: California and UK form unprecedented partnership between a nation & a state for climate change research
- Sep 2006: AB 32 Global Warming Solutions Act Approved by legislature and enacted in January 2007 as an overarching law.

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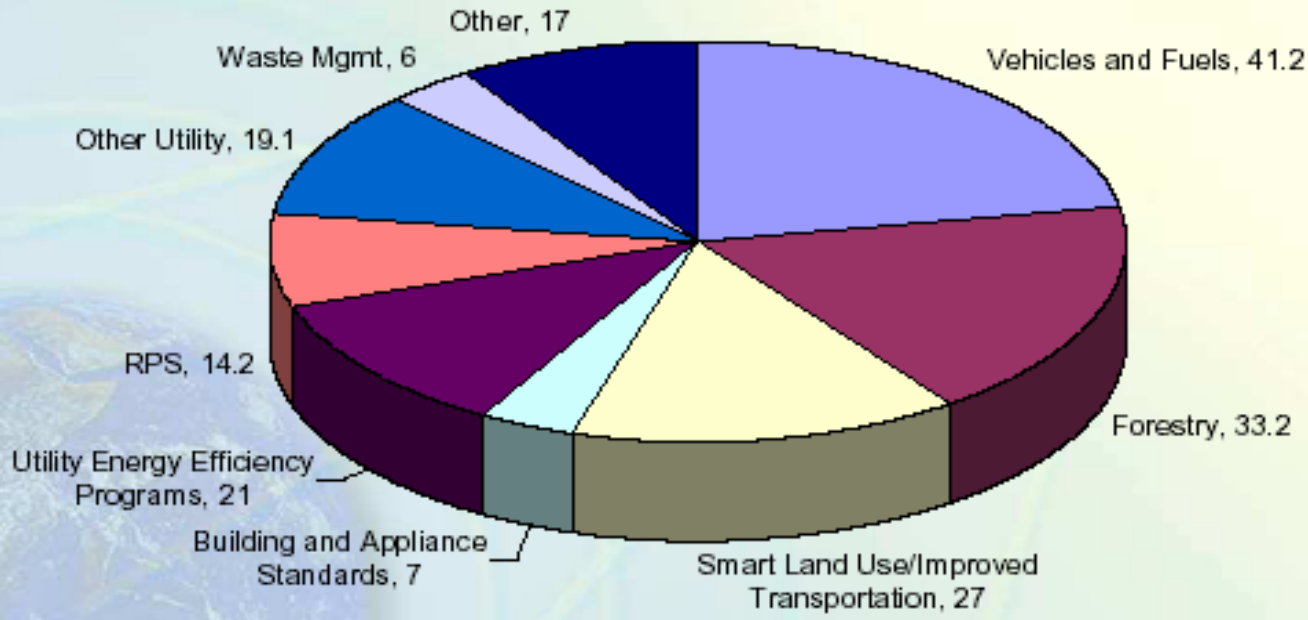
Sustainable Transportation/Land Use is Key

Sources of Potential Reductions
(Million Metric Tons CO2 Equivalent)



Source: March 2006 Climate Action Team Report

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AB 32 Global Warming Solutions Act (Sep 2006)

- Establishes a first-in-the-world comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gas emissions (GHGE) beyond Kyoto.
- Requires the California Air Resources Board (CARB) to develop regulations and market mechanisms to reduce California's GHGE 25 % by 2020.
- Mandatory caps will begin in 2012 for significant sources to meet the 2020 goals.
- CARB is measuring the GHGE of the industries/sectors it determines as significant sources.

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AB 32 Global Warming Solutions Act (Sep 2006)

- The Act requires CARB to:
  - Establish a statewide GHGE cap for 2020, based on 1990 emissions by January 1, 2008.
  - Adopt mandatory reporting rules for significant sources of GHG by January 1, 2009.
  - Adopt a plan by January 1, 2009 indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions.
  - Adopt regulations by January 1, 2011 to achieve the maximum technologically feasible and cost-effective reductions in GHGE, including provisions for using both market mechanisms and alternative compliance mechanisms.

- Governor has ability to suspend caps for up to one year in case of emergency or significant economic harm.

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Caltrans Climate Action Program (Dec 2006)

- The Department's overall approach to lowering fuel consumption and CO_2:
  1. Reducing congestion & improving efficiency
  2. Institutionalizing energy efficiency, GHG emission reduction measures and technology

- Planning, project development, operations, and maintenance of transportation facilities, fleets, buildings, and equipment

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Post AB 32 Actions and Related Policy Issues

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Post AB 32 Actions

- Executive Order S-20-06 requires Cal EPA to lead implementation of AB 32 with the Climate Action Team & CARB.
  - By June 1, 2008, develop program that will demonstrate GHGE reduction technologies.
- Executive Order S-01-07 statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 ("2020 Target").
- Governors of Arizona, New Mexico, Oregon and Washington join California to reduce GHGE in the Western United States.
- Senator Perata sends letter to CTC urging AB 32 strategies into transportation planning & programming guidelines and funding criteria.
  - CTC is developing Draft RTP guidelines by Jan 2008.
- U.S. Supreme Court ruled that the federal Clean Air Act allows U.S. EPA to regulate carbon dioxide as a form of air pollution.
  - Federal legislators developing similar bills to AB 32.
- SB 375 Steinberg, if approved will require RTPs to establish a vehicle miles traveled reduction strategy and other GHGE reduction targets in their plans.

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AB 32 & California Attorney General

- California Attorney General (AG) recognizes that global warming will slow the progress toward regional agencies attainment of the ozone quality standard:

- The AG has:
  - Placed regional agencies on notice to incorporate GHG emissions reduction/adaptation strategies or risk potential legal challenges.
  - Interprets the California Environmental Quality Act (CEQA) section 21000 of the Public Resource Code to require entities to consider actual and cumulative global warming impacts of the Regional Plan's Environmental Impact Report (EIR) and/or projects requiring an EIR.
  - Expects Greenhouse Gas emissions from expected increase in Vehicle Miles Traveled to be estimated using CARB's "Proposed Methodology to Model Carbon Dioxide and Estimate Fuel Economy".

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AB 32 & California Attorney General

- Two thresholds can be used when performing the CEQA analysis:
  - Executive Order S-3-05 quantitative analysis to reduce GHG, and
  - California Climate Action Team report for Qualitative analysis to reduce GHG.

- Quantitative Analysis is best for long range plan updates and qualitative is best for development of projects.

- Climate Change Impact Issues include changing precipitation, hydrology, flood hydrograph, sea level and changing habitat and species distribution.

- Better if Lead Agency has a Climate Action Plan/Greenhouse Gas Emissions reduction plan which individual projects can be consistent and have a reference point.

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AB 32 Related Policy Issues for Metro

- AB 32 GHG goals to 1990 levels by 2020 is within the 2030 time horizon of regional & local plans.
- Entities encouraged to voluntarily reduce their GHG emissions prior to 2012 by establishing baselines & offering credits to lead agencies for their early voluntary reduction strategies.
- Metro is not the federally designated Metropolitan Planning Organization (MPO), it is required under Section 130303 State Public Utilities Code to prepare a Transportation Improvement Program (TIP) for Los Angeles County & will be subject to AB 32 requirements.
- AB 32 will impact Long Range Transportation Plans, the Call for Projects and other funding programs.
  - No GHG reduction goals or Climate Change adaptation strategies in the LRTP or Call for Projects evaluation criteria.
  - If approved, SB 375 could allow Regional Transportation Plan to set & enforce reduction targets.
  - LRTP not an EIR- risk exposure to legal challenges is uncertain.
  - Other Transportation Sales-Tax Agencies expressed concern over their plans.

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AB 32 Related Policy Issues for Metro

- Senate Bill 97 (Dutton) was signed into law to protect the Proposition 1B infrastructure projects from the current uncertainty as to what type of analysis of GHG is required under CEQA.
  - Office of Planning and Research (OPR) and CARB to develop CEQA guidelines on how state and local agencies should analyze, and mitigate greenhouse gas emissions.
  - The OPR is required to "prepare, develop, and transmit" the guidelines to the Resources Agency on or before July 1, 2009.
  - CARB must certify and adopt the guidelines on or before January 1, 2010.
  - If Prop 1 B project fails to be cleared by deadline will be subject to AB 32 analysis.

- All other EIRs subject to AB 32 analysis

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AB 32 Related Policy Issues for Metro

- The California Climate Action Registry does not yet have protocols to acknowledge the carbon dioxide offsets attributed to mode shifting from single occupant vehicle trips to transit, bicycle or walking or transit oriented development.

- Significant for Metro and other transportation agencies in that the current protocols just measure actual energy usage.
  - Protocols don't measure significant emission reduction by commuters switching to other modes.
  - Staff working with American Public Transportation Association to develop these protocols.

- AB 32 related actions, regulations and outcomes continue to evolve & will be impacting Metro's operations, planning and construction programs.
  - Federal legislation & SAFETEA-LU Reauthorization is following AB 32.

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Sustainable Mobility Roles for Metro

Climate Change Focus Areas	Category	Metro as		
		Corporation	Regional Planner/ Builder/ Operator	Local/ State/Federal Partner
Energy Conservation	Energy Efficiency	Customer/ Facilities	Regional Transit Fleet	Influence Policy
	Renewable Energy & Fuels	Customer/ Fleet	Regional Transit Fleet	Influence Policy
	Green Construction & Materials	Customer/ Facilities	Regional Transportation System	Influence Policy
Demand Management	Congestion & Parking Pricing/ Rideshare	Employees	LRTP/Regional Transportation System	Influence Funding Policy
	Smart Growth /Green Multi-modal Streets		Call For Projects/Joint Development	Influence Funding Policy

AB 32 Opportunities

- Los Angeles County Transportation Planning & Programming
  - Partner with SCAG and AQMD to develop a Regional Climate Change Action Plan.
  - Revise Metro planning, programming and operating policies to incorporate AB 32 objectives and voluntarily set greenhouse gas emissions reduction goals.
  - Incorporate Climate Change & GHG emission reduction goals in LRTP and develop reporting indicators for the SRTP consistent with RTP guidelines.
  - Prioritize funding for sustainability projects and programs.
  - Revise Call for Projects Evaluation Criteria to meet GHG emissions reduction goals.
  - Work with COGs and cities to develop local Climate Change Action Plans.
  - Work with US Green Building Council to establish LEED Certification for Transportation Infrastructure projects.
  - Establish annual report card on Greenhouse Gas Emissions for Los Angeles County.
  - Establish Metro GHG website.
- Los Angeles County Transit Operations
  - Register with the California Climate Action Registry to establish an emissions baseline, and obtain credits for Metro operations, construction and maintenance.
  - Work with Munis to register and develop similar programs.
  - Develop marketing programs around Metro's efforts to reduce greenhouse gas emissions/promote green transportation programs.

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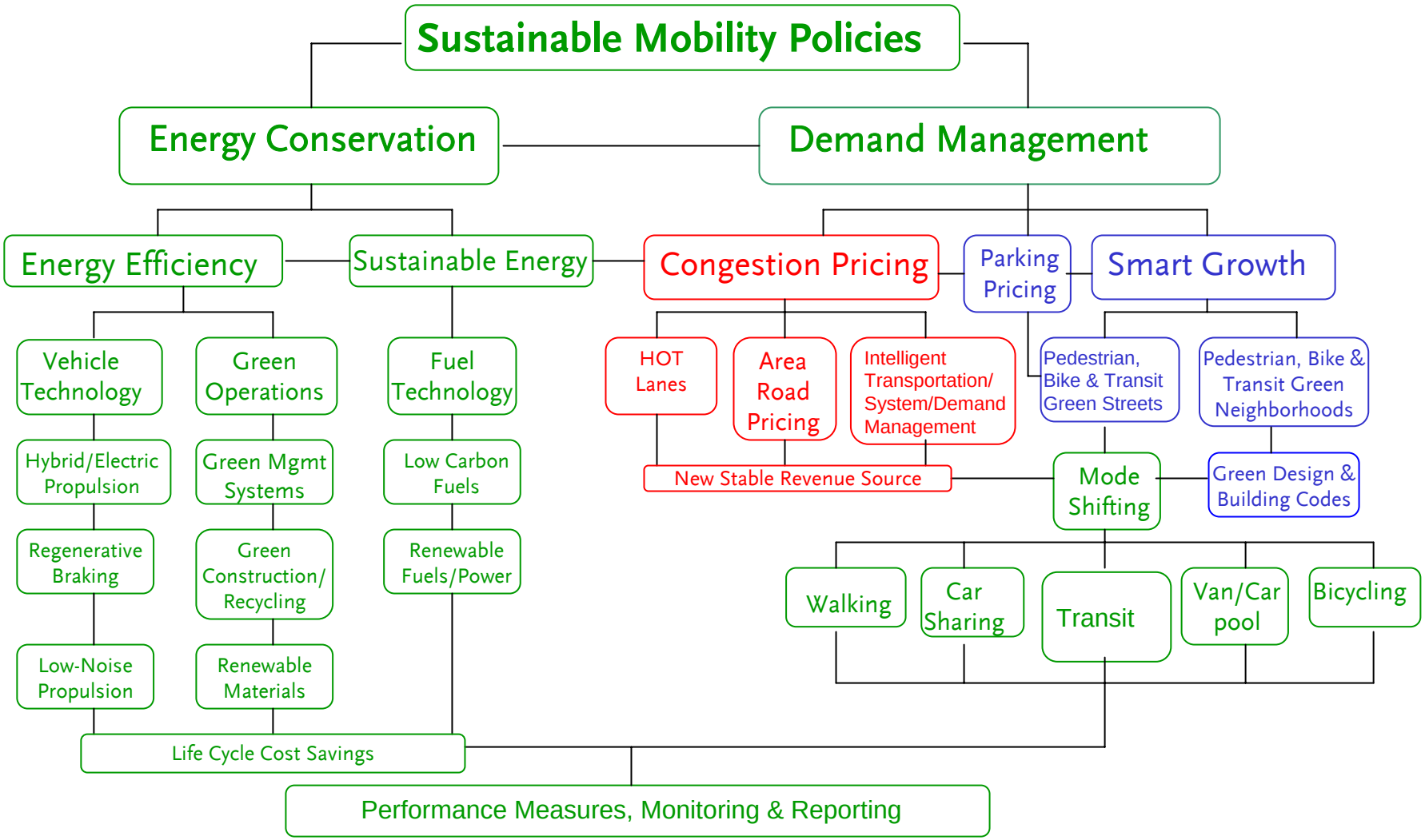
Greenhouse Gas Emissions Reductions Strategies



The sum of all these parts reduces Greenhouse Gases & local criteria pollutants

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Produced By: Timothy Papandreou 8-14-07 Metro Countywide Planning

Challenge to Reducing Emissions in Transportation Planning & Programming

- Land Use & Transportation Funding Policy & Programs:
  - Decisions embed travel demand & GHG emissions.
  - Most Transportation Agencies respond by expanding auto capacity.
  - Funding highways over bicycle, pedestrian & transit projects
  - Rewarding widening for cars over multi-modal, green streets

- Funding priority levels & Federal Re-authorization needs to:
  - Reduce congestion, GHG emissions & energy consumption.
  - Prioritize Mode shifting, congestion pricing, smart growth & parking management
    - Feds fund $1.7 Billion annually on Light Rail vs. $40 Billion on Highways

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Update

from

Clean Air Task Force

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Update from Clean Air Task Force

- At the December 2006 Metro Board meeting, the Board approved a motion by Mayor Villaraigosa creating a task force to ensure that Metro maximizes its efforts to improve air quality.

- The Clean Air Task Force members are as follows:

  Richard Hunt, GM, SF Valley (Chair)
  Michael Turner, Government Relations
  Patricia Torres, Government Relations
  Ernest Morales, Planning
  Brian Soto, Facilities/General Services
  John Drayton, Vehicle Technology
  Tim Lindholm, Facilities/Engineering

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Update from Clean Air Task Force

- Initially the Task Force is focusing on the following:
  - Inventory of MTA Clean Air initiatives and programs
  - Internal initiatives and opportunities (Operations, Planning and Construction)
  - Agency outreach
    - CARB, EPA, AQMD, LA City Departments & Los Angeles County
  - Identifying Metro's "Emissions Footprint" in preparation for AB32

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Update from Clean Air Task Force

- Next Steps:
  - Identify emission reductions from current and future transit and highway projects
    - Measure against Metro's Current Emission Baseline (Metro's Emissions "Footprint")
  - Continue efforts to identify Clean Air initiatives and opportunities
    - Identify and secure program funding
  - Work with our regional partners to expand Clean Air initiatives and programs
    - Communicate Metro's clean air successes
  - Staff recommends that Clean Air Task Force become directly linked to Ad Hoc Committee

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Environmental

Management

Systems

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Environmental Management Systems (EMS)

What is an EMS?

- Forms the core of an agency-wide sustainability infrastructure
- Designed to develop a systematic management approach to the environmental concerns of an organization
- Set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency
- Overall, an EMS integrates the environmental ethic into business operations
  - Environmental stewardship becomes part of the daily organizational responsibility

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EMS Components

Environmental Management	• Environmental Policy • Environmental Objectives and Targets • Environmental Incident Reporting • Environmental Aspects and Impacts
Document & Records **Management**	• Document Control • Records Management
Training and Communications **Mgt**	• Training Management • Internal/External Communications
Compliance Management	• Legal Requirements and Permits • Emergency Response • Maintenance/Measurement/Monitoring • Operations Control
Checking and Corrective **Actions**	• Audits Management • Non-Conformance Reports • Management Review and Tracking

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Benefits of an EMS

- Organizations more effectively manage their environmental obligations
- Enhanced ability to analyze, control and reduce environmental impacts
- Operate with greater efficiency and control
- Other benefits
  - Cost savings over time
  - Improved bond ratings
  - Reduced insurance premiums
  - Better community relations

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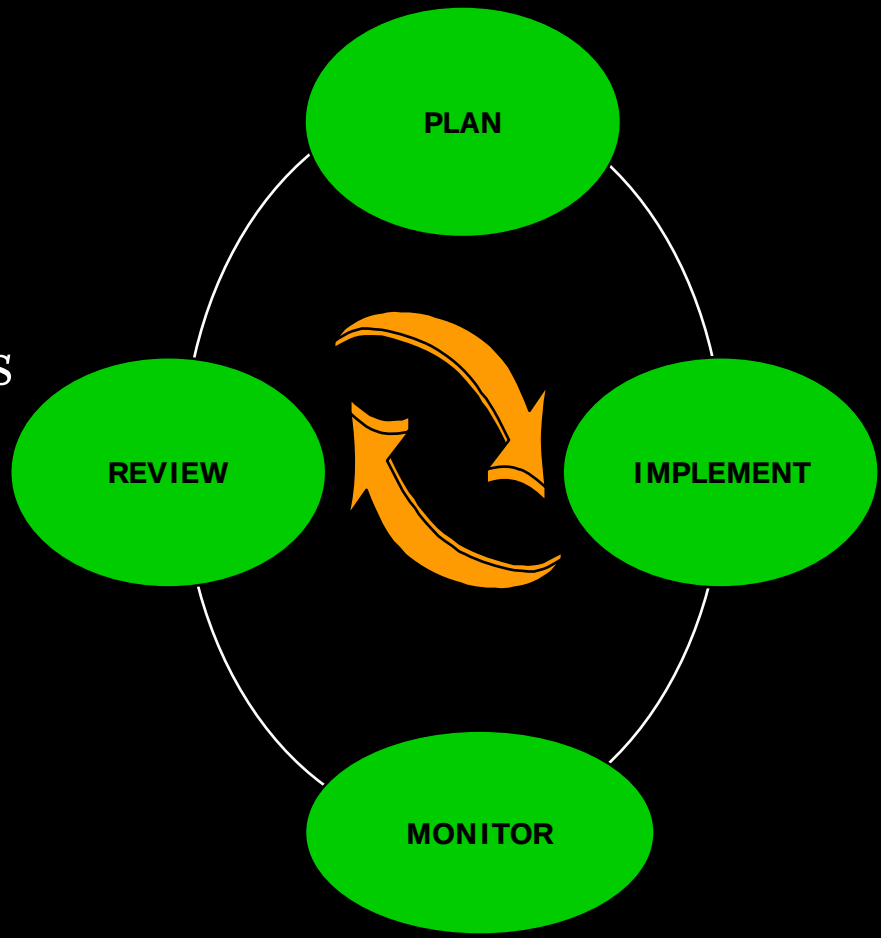
EMS and Sustainability Link

- EMS can be used to **plan, implement, monitor, and review** any sustainability effort or initiative within Metro
- **Plan**: includes identifying environmental aspects and establishing sustainable goals
- **Implement**: includes completion of training and adoption of operational controls
- **Monitor**: includes maintenance and development of a corrective action
- **Review**: includes progress reviews and acting to make needed changes to the effort.



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Metro EMS Efforts

- Metro completed an application for a training and assistance grant from the Federal Transit Administration (FTA) on August 31, 2007 to commence the implementation of an EMS
- FTA will provide technical assistance in the form of training workshops, on-site technical advice and consultation, including follow-up
- Biggest previous grant recipients
  - Bay Area Rapid Transit, Massachusetts Bay Transportation Authority and the Washington Metropolitan Area Transit Authority
- EMS implementation typically leads to ISO 14001 certification

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Metro EMS Efforts

- Sustainability elements are already present and are being implemented within Metro
- There is a need to develop a coordinated effort to account for such efforts
- There is a need to formally measure and report agency-wide the cost and benefits of implementing sustainability elements

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Metro EMS Efforts

- Participation in the FTA EMS Training and Assistance Program reinforces our ability to structure mitigation measures and compliance to accomplish desired results
- EMS is an essential Metro infrastructure for capturing our environmental compliance and mitigation best practices
- EMS software programs are commercially available
- EMS will provide an improved framework for proactively developing sustainable solutions to environmental issues

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Proposed Goals & Objectives

Strategic Objective	Action
Establish & Monitor Metro's Climate Change Footprint	Work with the California Climate Change Action Registry
Reduce Metro's Operations & Maintenance Climate Change Footprint	Develop Environmental Management System processes & procedures.
Report Metro's Climate Change Footprint Progress	Develop Annual Sustainability Report
Mitigate Metro's Climate Change Footprint in the Planning Stage	Incorporate AB 32 & related actions & LEED Certification protocols in CEQA & NEPA documentation
Reduce Metro's Climate Change Footprint at the Design & Construction Phase	Work with US Green Building Council to develop LEED for linear infrastructure.
Reduce Metro's Planning & Programming Climate Change Footprint	Incorporate AB 32 & related actions into the LRTP, SRTP, Short Range Transit Plan, Metro Connections, Call for Projects & Joint Development Program.
Lead By Example & promote Metro as a Green Organization	Develop public awareness campaign and webpage on Metro's progress.
Develop Partnerships to reduce the region's Climate Change footprint	Work with regional partners to develop Regional Climate Change Action Plan

Proposed Next Steps

- Develop Greenhouse Gas Emissions Reductions & Climate Change Adaptation Strategies
- Incorporate Goals into LRTP & Related Plans
- Expand the current Energy & Sustainability Policy
- Work to reduce Metro's carbon footprint, and work with Partners to reduce their carbon footprints
- Advocate for legislative changes that are favorable to Metro's Sustainability & Climate Change initiatives
- Identify Public/Private Partnerships to fund Sustainability programs & projects
- Partner with SCAG, COGs and SCAQMD to develop a Regional Climate Change Action Plan

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Proposed Next Steps

- Revise & Prioritize all evaluation criteria for funding programs to meet GHG emissions reductions goals
- Work with US Green Building Council to develop LEED Certification for Transportation Infrastructure
- Complete quantification of Metro's "Emissions Footprint"
- Work with the California Climate Registry to register Metro's emissions and develop protocols that capture the benefits of mode-shifting
- Convene working group with APTA, Metro, and California Climate Exchange to develop protocols for emissions reporting in a transit environment

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Proposed Next Steps

- Implement an Environmental Management System
- Develop reporting mechanism and metrics to understand budget impacts and benefits of sustainability implementation
- Revise all design criteria documents for infrastructure projects to include sustainable design and construction principles
- Continue to implement renewable energy and energy conservation projects (such as the MSSC)
- Organize trainings sessions for Metro departments that will play a role in sustainability implementation.

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Questions and Discussion

"We stand here confronted by insurmountable opportunities"

---Walt Kelly---

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