



Update of Metro Sustainability Efforts

A Report to the Ad Hoc Sustainability and Climate Change Committee

January 23, 2008

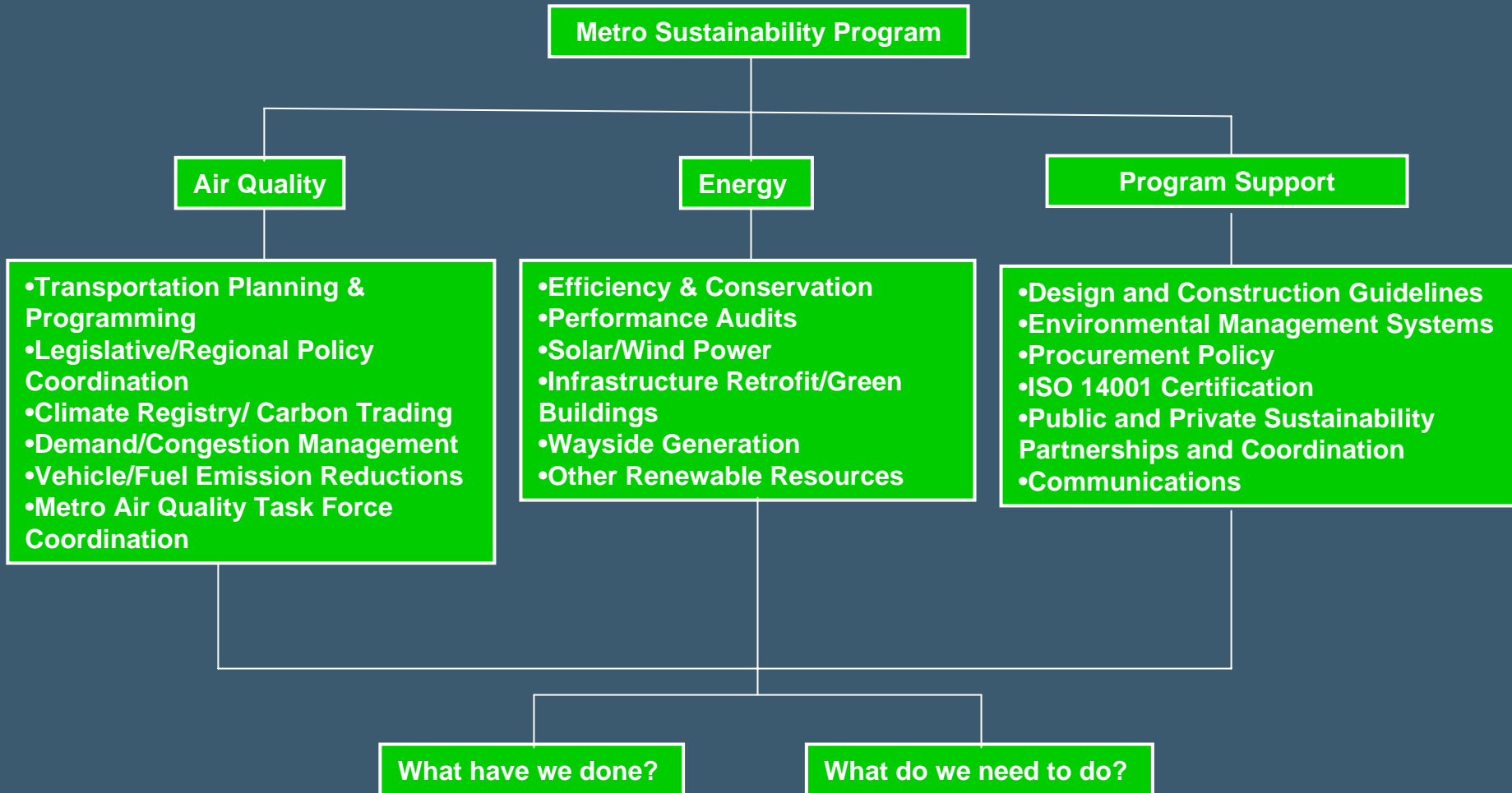
Outline

- **Sustainability Guiding Principles**
- **Summary of Completed Sustainability Efforts**
- **New Sustainability and Climate Change Efforts**
 - Air Quality
 - Energy
 - Program Support
- **Summary and Path Forward**

Sustainability Guiding Principles

- **Vision:** Metro will be the transportation industry leader in maximizing sustainability efforts and its benefits for Los Angeles County's people, economy, and environment
- **Mission:** Metro will provide leadership in sustainability within the Los Angeles region without compromising our core mission of moving people efficiently and effectively
- **Guiding Sustainability Principles were developed in October 2007**
 - Metro's sustainability efforts go beyond its fenceline
 - Principles are being updated to better reflect Metro's role as Los Angeles County's regional planner, designer, builder, and operator
 - Principles to be incorporated in Metro's Long Range Plan

Framework for Sustainability Implementation



Metro's Contributions to Regional Sustainability

- **Metro's Integrated Planning Management**
 - Expanded Regional Transit Network
 - Transit-Linked Developments
- **Funding Sustainable Transportation**
 - Over \$300 million to sustainable mobility modes (bikes/peds etc.)
- **Emissions Reductions Efforts**
 - Use of CNG and Lower Carbon Fuels
 - Energy Efficient Transit Vehicles
- **Energy Projects**
 - Conservation through retrofits, upgrades & Green building
 - Renewable Energy through solar power
- **Metro Orange Line's elements of sustainability**

Sustainability: Air Quality

Transportation Planning & Programming

- Integrated approach to improving air quality
- Coordinate with Cities to initiate land-use transportation linkage programs: “universal design”
 - Land use designations to support Transit-Oriented Developments (TOD) and inclusion of Transportation Demand Management (TDM)/parking strategies in developments around transit centers
 - Comprehensive design & planning of streets to support transit, bike and pedestrian environments
 - Integration of bike, park and ride and car share into transit centers
 - Provision of transit services to commercial neighborhood centers
- Coordinate with employers to expand the use of commute options
- Staff in process of procuring consultant to develop planning & programming carbon footprint framework

Legislative Policy Coordination

- **Federal Energy Independence and Security Act of 2007 Signed into law on December 19, 2007**
 - Sets national 35 miles per gallon standard of by 2020, 40% increase
- **The law includes provisions important to Metro**
 - Allows the federal share of CMAQ projects to be increased to 100% from 80% for FY 2008 & FY 2009
 - Requires rescissions of highway funds to be distributed proportionally across the “core” highway programs
 - Over \$2.3B of new annual grant funding opportunities in FY 2008 for energy conservation, renewable energy & GHG reduction
- **Federal Re-authorization process will be fierce fight for fewer resources**
 - Sustainability will be key feature of new programs

Regional Policy Coordination

- **Coordinate with California Transportation Commission (CTC) & California Air Resources Board (CARB)**
 - CARB Board must develop AB 32 Scoping plan of reduction strategies by Jan 1, 2009
 - Recommendations for Regional Transportation Plan Guidelines submitted to CTC
- **Southern California Association of Governments (SCAG) Regional Comprehensive Plan (RCP)**
 - Air quality and climate change elements
 - RCP to be rolled out in Spring 2008
 - Explore opportunities with SCAG
- **Coordinate with other Southern California Stakeholders**
 - Organize a Sustainability Summit at Metro in Spring 2008
 - Work with stakeholders to coordinate climate change efforts
 - Discussions with six L.A. LEED Neighborhood Development recipients

Climate Change Registry/Carbon Trading

- **Staff working with Climate Registry as they develop Local Government Protocol Development**
 - Incorporate sustainable transportation/land-use protocols
 - Municipal Operations & Community-wide emissions Inventory
 - Purpose is to level the playing field in how we measure our emissions
 - Projected protocol development/roll-out: Feb/June 2008
- **Staff participating with American Public Transportation Association (APTA) Climate Change Working Group**
 - Developing carbon trading opportunities & emissions inventory protocol standards for transportation industry and registry
- **Staff working with Industry Leaders on Carbon Cap and Trade**
 - Carbon cap and trade market opportunities are rapidly developing

Vehicle/Fuel Emission Reduction Efforts



- Explore the use of blended fuels and advanced hybrid drive trains
 - Newest vehicle engines already meet 2010 emissions standards
 - Explore the use of Hybrid Technologies
 - Six advanced demonstration hybrid vehicles by the end of FY08

Air Quality & Congestion Management

- **Clean Air Task Force**
 - Created in December 2006 to maximize Metro's efforts in improving air quality
 - Continues to develop Metro Clean Air Inventory and outreach to other agencies on clean air issues
- **Congestion Reduction Pricing Task Force**
 - Created to coordinate with Caltrans and other agencies to develop feasibility of congestion pricing in Los Angeles County by 2010
 - \$1.4 Billion Program submitted to FHWA December 31, 2007
 - \$648 million Federal Grant Request goal to reduce congestion by 10%

Sustainability: Energy

The Need for Energy Sustainability

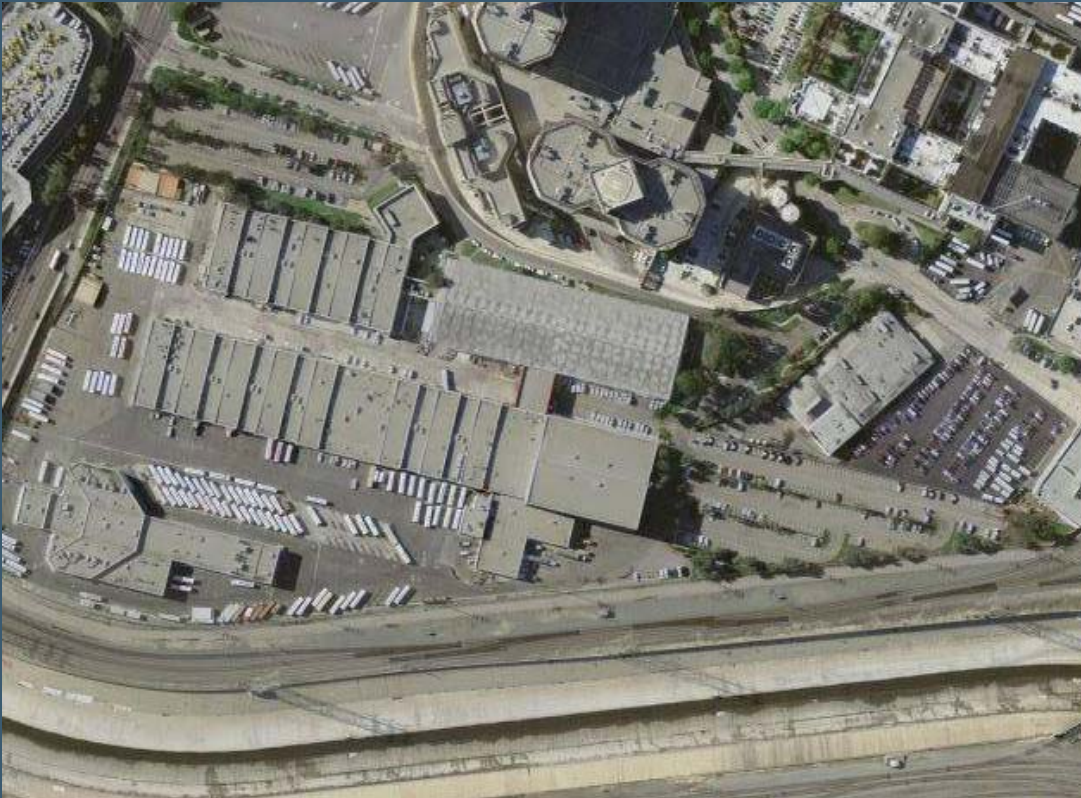
- In FY 2007, Metro's actual electrical expenditure was ~\$26 million
- Metro is exploring means and methods of reducing energy costs
- *Metro needs to enhance its strategic effort of eliminating inefficient energy use*
 - In parallel with adopting renewable energy sources, staff should continue to pursue infrastructure upgrades and install efficient equipment (i.e. lighting, HVAC, etc.)
 - Implementing energy efficiency and conservation methods through infrastructure upgrade can reduce energy costs from between \$1M to \$8M per year (2002 Metro staff estimate)
 - Staff is currently analyzing utility expenditures to establish agency baseline for conservation

Methods To Achieve Energy Sustainability

- Incorporate energy efficiency and conservation as a guiding principle in the planning, design and construction of new and remodeled facilities
- Conduct comprehensive energy audits
 - Utility companies generally provide free energy audits of their commercial clients
- Integrate energy efficiency enhancements with ongoing facility maintenance
- Develop a policy of potentially becoming a dual fuel generator/user

New Renewable Energy and Conservation Project

Metro Support Services Center (formerly RRC)



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

Exploring Other Energy Related Efforts

- **Wayside Energy Storage Substation Pilot Study (WESS)**
 - Applied for a Coalition of New California Infrastructure grant to study the feasibility of regenerative power generation
 - Funding is anticipated in early to mid-2008
- **Explore peak electricity consumption reduction methods**
- **Explore the use of Thyristor Traction Power Substations to reduce peaks of power demanded by the Traction Power Substations**

Sustainability: Program Support

GEN 51: Recycling and Reuse Policy

- Response to Directors' Molina and Lowenthal motions pertaining to recycling and reuse
- Has two elements
 - Recyclable materials and recycling are to be considered in all aspects of planning, design, construction, and procurement of all Metro and Metro-funded projects
 - Metro will ensure that all recyclable and disposable materials are only disposed or diverted to licensed or permitted facilities
- Signed into policy in December 2007
- Board Box has been prepared and circulated to advise Metro Board

Capital Projects Enhancing Regional Sustainability

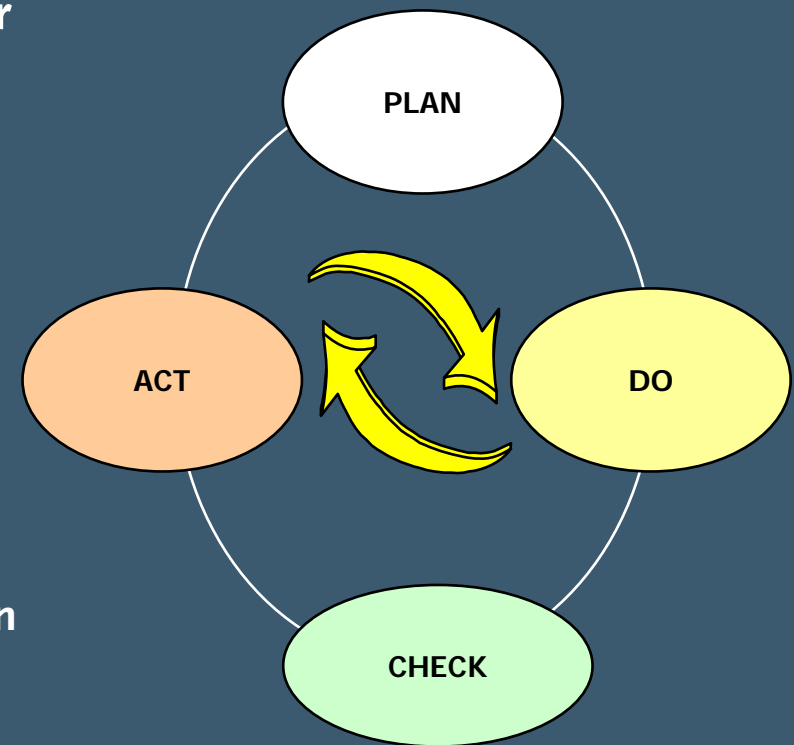
- **Capital Projects by their function enhance regional sustainability:**
 - Gold Line Eastside Extension
 - Exposition Light Rail Transit Project
 - Canoga Transportation Corridor
 - Orange Line/North Hollywood Depot
 - Joint Development Projects
 - Carpool Lanes
- **Sustainability Design Guidelines currently being developed for future construction projects**

Metro Sustainability Design Guidelines

- **Develop sustainability guidelines document to be used in all design and construction activities**
- **Sustainability guidelines are based on 15 basic elements**
 - **Project Management**
 - **Site Selection**
 - **Stormwater Management and Erosion Control**
 - **Landscape Design**
 - **Water Efficiency and Conservation**
 - **Heat Island Reduction**
 - **Interior/Exterior Lighting Quality**
 - **Noise Pollution Reduction**
 - **Energy Efficiency/Conservation**
 - **Atmosphere Protection**
 - **Materials Use and Reuse**
 - **Indoor Air Quality**
 - **Post Construction Maintenance, Monitoring, and Reporting**
 - **Community Involvement**
 - **Additional Design Elements**

Sustainability Management System Pilot Study

- Pilot study at Division 10 to capture Metro's best management practices under one system
- Initially conceived as an Environmental Management System effort
- Integrated environment, safety, and quality management system approach
- Goal is to obtain third party certifications
 - International Organization for Standardization Certification [ISO 14001 (Environment) and ISO 9001 (Quality)]
 - Occupational Health and Safety Administration Standard 18001 certification
- Continuous improvement & positive impact on the environment, employees, customers, and finances.



Division 10 Pilot Savings Opportunities

- **Bus fueling processes**
- **Tire recycling program**
 - Pollution prevention
 - Tire use maximization
- **Waste Stream assessment**
 - Waste tracking and rebates
 - Metal and battery recycling
- **Materials and Equipment Storage**
 - Pollution prevention opportunities
- **Bus wash processes**
 - Water use efficiency, conservation and recycling
 - Cleaning agents
 - Heat generation
 - Paper recycling



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Division 10

FTA Environmental Management System

- Metro has been awarded a grant to participate in FTA's Environmental Management System Program
- Two-year program will begin in Spring 2008
- Metro staff will train with representatives from 10 other transportation agencies
- Memorandum of understanding between FTA and Metro to be signed
- Metro to select at least one facility to be used in FTA effort



Training and Professional Development

In cooperation with



Regionwide Sustainability Coordination

- **Sustainability and Other Southern California Stakeholders**
 - Organize a Sustainability Summit at Metro in Spring 2008
- **Review and align with other environmental elements of the Southern California Association of Governments' Regional Comprehensive Plan (RCP) implementation**
 - Solid waste, energy, water, land use planning, economy, security
 - Explore joint sustainability effort opportunities with RCP Task Force
- **Increase the environmental consciousness of Metro's partners**
 - Commuter Services
 - Employer Services

Public and Private Partnerships

- **Rotary Club of Sherman Oaks Trash Inserts**
 - Pilot study to reduce trash coming from Metro Orange Line station and busway
 - Initial 5 locations at Sepulveda Park and Ride Station
- **Discussions with private firms at Division 10**
 - UV reduction film in offices and buses
 - Environmentally friendly cleaning agents
 - Environmentally friendly cleaning tools

Sustainability and Metro Communications

- **Metro's Global Warming Campaign Poster**
 - Rolled out in November 2007
- **“Metro is Getting Green” Brochure**
 - Outlines Metro's current efforts to achieving sustainability
 - Distributed at GreenXChange Conference
- **Webpage development**
- **Other opportunities**
 - Metro Quarterly
 - “Green” consciousness incorporated into Rideshare, Vanpool, and similar programs' marketing materials
 - Materials Recycling and the Metro Store
 - Printing materials



Sustainability and Metro Audit

- Initiated by Management Audit and Services Department
- GASB 49 Compliance Audit
 - Audit will capture Metro's potential environmental liabilities and their impacts to financial statement
- Environmental Compliance Audit
 - Audit will capture extent of Metro's environmental compliance and its implications to operational costs
- Audit results will assist Metro in identifying opportunities to improve operations resulting in greater long-term savings

Sustainability and Other Metro Business Units

- **General Services**
 - Recycling and reuse of office paper products
 - Metro Cafeteria
 - Ongoing discussions for possible efforts
- **American Disabilities Act Compliance Group**
 - Ensure continued American with Disabilities Act compliance of all Sustainability projects
- **Procurement and Materials Management**
 - Develop specific protocols consistent with the intent of GEN 51: Recycling and Re-Use Policy and Sustainability Vision and Mission Statements

Sustainability: Path Forward

Path Forward: Projects

- **Air Quality**

- Continue to coordinate with partners in implementing Air Quality improvement and Greenhouse Gas reduction efforts
- Continue exploring the use of alternative fuels and vehicles
- Continue Legislative and APTA coordination
- Complete Greenhouse Gas Emissions Footprint Efforts (registration & reduction goals)
- Monitor and Coordinate with Clean Air Task Force and Congestion Reduction Pricing Task Force Activities

- **Energy**

- Develop Energy Efficiency Goals
- Heighten and Expand Energy Efficiency Conservation efforts
- Expand Renewable Energy Projects

Path Forward: Projects

- **Program Support Initiatives**
 - Implement Recycling and Reuse Policy
 - Develop Sustainable Design Guidelines Document
 - Incorporate Sustainability Design Guidelines to Capital Projects
 - Continue with Sustainable Management Systems Pilot Study
 - Commence FTA Environmental Management System Efforts
 - Explore Regionwide Sustainability Collaboration
 - Expand Public/Private Partnership Collaboration
 - Expand Metro Communications Efforts
 - Track Environmental Liabilities and Compliance Audits
 - Explore Sustainability Opportunities in Metro's Cafeteria
 - Confirm ADA requirements related to sustainability
 - Develop procurement practice details

Path Forward: Needs

- Sustainability efforts are initiated & coordinated through key staff above & beyond their assigned duties
- There is a critical need for *dedicated* resources (i.e., staff and financial commitment) to aggressively continue and implement existing and forthcoming programs agency-wide
- Staff to develop a long-term (multi-year) work plan to demonstrate this need
 - Continue to coordinate with all Metro Business Units
 - Recommend Goals and Indicators to measure progress
 - Reinvest savings from on-going sustainability projects into sustainability related projects

Questions