Board Report

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EXECUTIVE MANAGEMENT COMMITTEE
JANUARY 21, 2021

SUBJECT: MOVING BEYOND SUSTAINABILITY UPDATE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Moving Beyond Sustainability Update Report

ISSUE

On September 24, 2020, the Metro Board adopted the our agency's ten-year, Sustainability Strategic Plan, *Moving Beyond Sustainability* (MBS). Prior to approval and during the Executive Management Committee meeting on September 17, 2020, the Board Chair requested a report back on three key areas:

- A full assessment of how Metro can reduce passenger vehicle emissions and help meet state SB 32 targets and the Paris Climate agreement;
- A comprehensive look at the external impact Metro has on climate change;
- Identify partnerships with agencies such as utilities.

This report provides staff's initial findings.

BACKGROUND

The Paris Climate Agreement

The Paris Climate Agreement is a landmark 2016 climate accord among 197 signatory nations. It is meant to strengthen the global response to the threat of climate change by maintaining global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. In addition, signatory countries agree to limit the amount of greenhouse gases emitted by human activity to levels that can be absorbed naturally, periodically review each country's contribution to cutting emissions and enable wealthy countries to aid poorer nations. Under the Paris Climate Agreement, the United States' contribution is to reduce its greenhouse gas emissions to 26%-28% below 2005 levels by 2025 and to make best efforts to reduce its emissions by 28%.

With 14% of global greenhouse gas emissions attributable to the transport sector (road, rail, air, and marine transportation) and almost all (95%) of the world's transportation energy derived from

petroleum-based fuels, largely gasoline and diesel, reducing emissions in the transport sector is a fundamental strategy in the global effort towards a low carbon future.

In the absence of current Federal commitments to achieve these goals, State and local governments have been stepping up with policies and actions that reduce GHGs at the regional level. The State of California has been a national leader in this regard, and both the County and City of Los Angeles have detailed sustainability plans that are in the process of implementation. At LA Metro, we recognize our critical role in reducing emissions not only in the activities that we control, but also in our ability to influence those emissions reductions from entities that support our agency operations.

Transit is a sustainable and resilient strategy. For almost a decade, we have developed a sustainability and resilient culture and program in our organization. More importantly, we have worked together with our communities to do more than what is expected of us in the most fiscally responsible way.

We have identified 13 specific strategies in our Climate Adaptation and Action Plan to further reduce our GHG emissions. In MBS, we have also outlined specifics on how to reduce our environmental impact, increase social value, and realize re-investable economic benefits in additional aspects of our activities.

Since program inception in 2007, it was imperative that we grew our program to be internally focused. Specific details on how we are meeting metrics are reported to the Board in the form of annual sustainability reports. We are currently on a path to be net zero emissions by 2050. *Our success creates a path and an opportunity to do more on GHG emissions reductions for and with the region.*

Key California Climate Policies

Greenhouse Gas Emissions reduction is a centerpiece of California state policy. Central to California's effort is AB 32, the California Global Warming Solutions Act of 2006, which requires a reduction of greenhouse gas emissions to 1990 levels by 2020. In 2016, the California legislature passed SB 32, which requires even deeper emissions cuts to 40% below 1990 levels by 2030.

The California Air Resources Board (CARB) has the authority to develop detailed strategies for emissions across sectors through the preparation of a scoping plan. GHG emissions from the transportation sector are a particularly pernicious problem in the state, with 40% of total greenhouse gas emissions attributable to the sector. Specific to transportation, the CARB Scoping Plan includes numerous state programs to reduce GHG emissions through a variety of methods, including:

- VMT reduction;
- Light duty vehicle rebates, mandates and standards such as the Advanced Clean Cars Program;
- Heavy -duty vehicle incentives and mandates, including the Innovative Clean Transit (ICT) regulation; and
- Low carbon fuel standards that aim to reduce carbon intensity of fuels.

In 2008 the California legislature passed SB 375, to improve transportation/land use coordination to realize SB 32 emission reductions. Under SB 375, CARB sets regional targets for greenhouse gas emission reductions from passenger vehicles for each of the 18 metropolitan planning organizations (MPO) in the state. In turn each MPO must prepare a Sustainable Communities Strategy/Regional Transportation Plan (RTP/SCS) that contains land use, housing and transportation strategies that if implemented would allow the region to meet CARB targets, which ultimately contribute to achievement of SB 32 goals.

Metro contributes to the RTP/SCS in a collaborative partnership with the regional MPO, the Southern California Association of Governments (SCAG). Metro represents the transportation interests of Los Angeles County, the most populous county in the SCAG region. Metro's planned projects are used as inputs to the SCAG travel demand model to determine future vehicle miles travelled (VMT) and GHG emissions, which must comply with CARB-mandated milestone targets on emission reductions.

DISCUSSION

Metro's contribution to state climate goals is best understood through the lens of the RTP/SCS. CARB sets the milestone GHG reduction targets for each MPO in order to achieve state GHG emission reduction goals. The most recent RTP/SCS for the SCAG region was adopted by the SCAG Regional Council on September 3, 2020. This plan achieves the CARB-mandated GHG reductions of 19% by 2035, supporting SB 32 GHG reduction goals.

A further indicator of the Los Angeles regions' proportional contribution to state climate goals is VMT per capita, which is a proxy for GHG reduction. Under the 2020 RTP/ SCS, the Los Angeles region plans for the greatest percentage decrease of VMT per capita among peer counties; a 13.5% reduction below baseline.

The recently adopted Metro 2020 Long Range Transportation Plan (LRTP) acknowledges that decreasing VMT and GHG in Los Angeles County is complicated and the plan integrates Metro's efforts across four priorities:

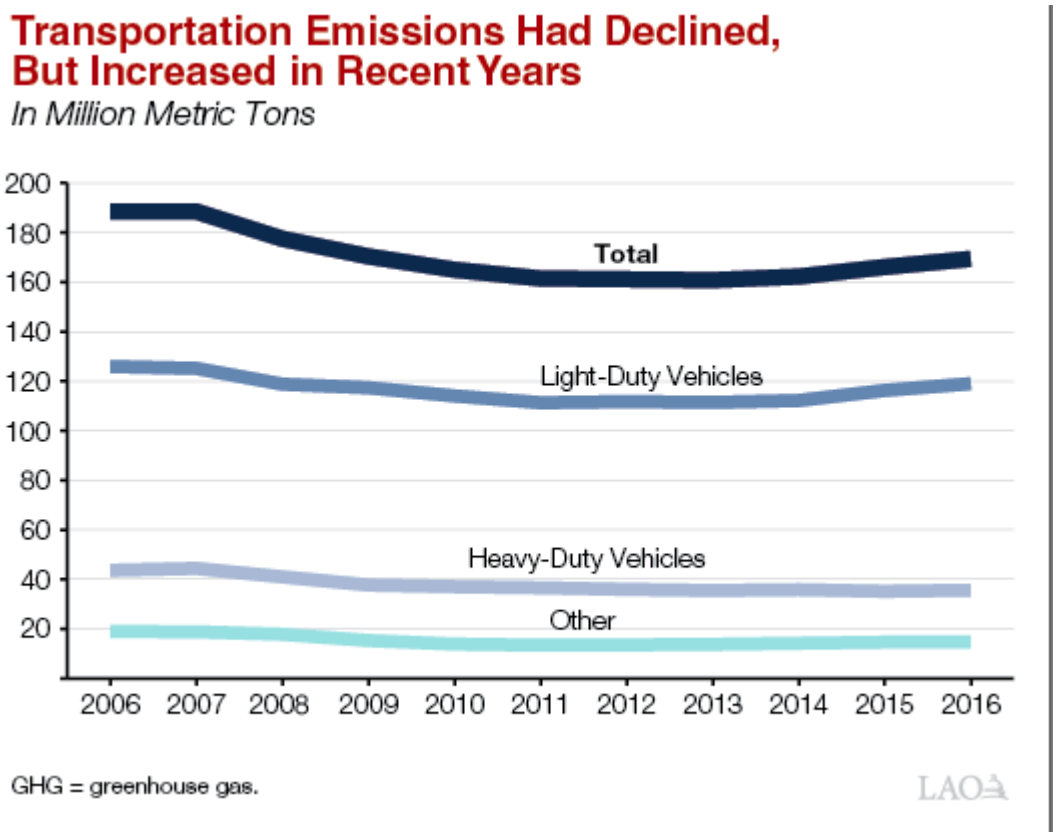
- Better Transit;
- Less Congestion;
- Complete Streets; and
- Access to Opportunity.

Specific to emissions, the strategies in the LRTP are anticipated to reduce annual VMT per capita by 9% over the baseline scenario (growth with no additional transportation improvements) by the horizon year 2047. Reductions in regional GHG emissions and particulate matter (PM 10) are similarly projected to decrease by 19% and 17% respectively over the baseline scenario. A full accounting of performance indicators can be found in the 2020 LRTP Technical document under the Performance Measures and Monitoring section (<https://media.metro.net/2020/2020-LRTP-Tech-Doc-Final.pdf>).

Prospects for Future State Emissions Reductions in the Transport Sector

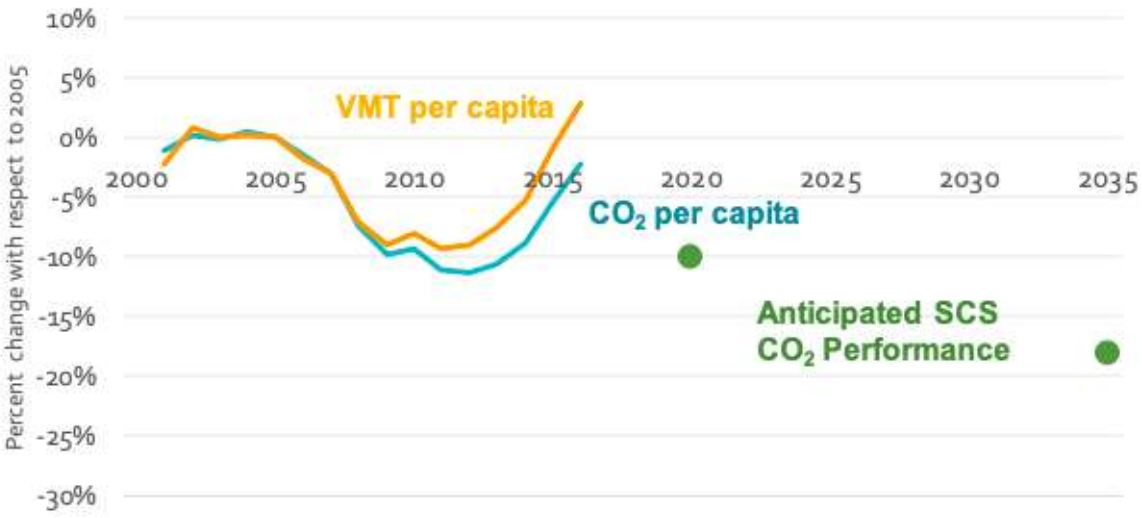
A 2018 Legislative Analyst Office (LAO) assessment of California's climate policies on transportation

found that the state is not on track to meet the greenhouse gas reductions expected under SB 375, with emissions from passenger vehicle travel per capita increasing:



The findings are not dissimilar from a 2018 CARB report on SB 375 progress, which found that California is not on track to meet the greenhouse gas reductions expected under SB 375 for 2020, with emissions from statewide passenger vehicle travel per capita increasing and going in the wrong direction. According to the Scoping Plan, “many [MPOs] have identified challenges to incorporating additional strategies and reducing emissions further in their plans, principally tied to the need for additional and more flexible revenue sources”.

Statewide CO_2 and Vehicle Miles Traveled (VMT) Per Capita Trend with Respect to Anticipated Performance of Current SB 375 SCSs[2]



Source: CDTFA, U.S.EIA, U.S.EPA, CARB

Under the Scoping Plan's Transportation Sector, there are four categories of goals to reduce GHG: Vibrant Communities and Landscapes / VMT Reduction, Vehicle Technology, Clean Fuels, and Sustainable Freight. Metro programs directly support the category containing the largest number of emission reduction goals: the Vibrant Communities and Landscapes/VMT Reduction category, which, is outlined in Attachment A.

Metro policies, plans and programs support state strategies to reduce GHG emissions from the transport sector and include some of the most progressive public agency actions to meet CARB goals. Measures R & M provide the resources necessary to build out transit capacity and active transportation corridors, which is one critical part of the equation. Complementary programs to transit expansion are the policies that facilitate behavior change, improve service and access. The Bold Policies and Programs were highlighted in the Board approved Metro 2020 Long Range Transportation Plan (LRTP) and include recommendations across several categories including but not limited to:

- Improving bus speeds;
- Promoting trip reduction strategies;
- Implementing a traffic reduction program;
- More affordable transit;
- Expand first/last mile connectivity; and
- Support transit-oriented communities.

These strategies have been modeled and proven to result in lower emissions and VMT reductions when implemented. Some of these strategies are already in the early phases of development or implementation such as: Traffic Reduction Study, Fareless System Initiative, Bus Speed Improvement Working group and NextGen. *Continued support from the Board to implement these initiatives coupled with robust engagement is absolutely critical to realizing GHG and VMT reductions necessary to meet state climate goals.*

Partnerships

Metro's success in achieving mobility and sustainability goals relies on meaningful partnerships with government agencies, businesses, and communities. We have a long history of collaboration with our public and private partners to executing on agency strategic environmental and sustainability goals. Some of these include:

- *Utility Partnerships*: Metro staff sees the value in partnering with our water, power, and natural gas utilities in order to increase agency resilience to climate change, reduce fleet emissions, support regional goals for renewable energy generation and storage, and to generate funding and revenue. Such revenues are re-invested back into our environmental and sustainability programs.
- *WHAM Task Force*: This County of Los Angeles Task Force brings together representatives from multiple agencies charged with implementing voter approved initiatives with revenues dedicated to parks, mobility, water-quality and addressing homelessness. Metro staff has been identifying potentially funded co-benefit projects along our rights-of-way.
- *Transportation Electrification Partnership*: This is a multi-year partnership that seeks to accelerate the adoption of light-duty passenger electric vehicles, shift single-occupancy vehicle trips to zero emission transit and active transportation and ensure broad public investment of zero emissions technologies in the goods movement sector.
- *Bus Speed Improvement Working Group*: Metro and the City of LA coordinate to install bus only lanes. The partnership has yielded early success with installation on Flower, 5th and 6th streets, with additional lanes under consideration.
- *Traffic Reduction Study*: This is a Metro lead initiative in the early stages of development. This study will explore how to reduce traffic through a two-pronged approach: 1) manage travel demand through congestion pricing, and 2) provide more high-quality transportation options. While the primary goal of the study is to reduce traffic congestion, co-benefits may include reduced VMT and GHG reductions.

Of mention is the LA Metro Sustainability Council (Sustainability Council). This body has been an essential partner in vetting out ideas, as well as identifying programmatic opportunities and challenges in environmental and sustainability program implementation. Organized through a Board action, the Sustainability Council consists of multi-sectoral representatives from the public, private, NGO, and non-profit communities who have actively recently participated in the development of the Climate Action Adaptation Plan and the MBS. The Sustainability Council continues to be a strategic environmental, sustainability, and resiliency program collaborator.

FINANCIAL IMPACT

This report will have no Financial Impact to the agency.

Impact to Budget

This report will have no Financial Impact to the budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

MBS supports Metro's third, fourth, and fifth Strategic Plan Goals. The strategies and actions outlined in MBS advocates for equitable access to job opportunities and observance to Metro's Equity Platform (Goal #3). MBS establishes the foundation for Metro's sustainability program, which sets the standard for the region and other transit properties (Goal #4). MBS sets quantifiable targets and timeframe for achieving sustainability along with a robust reporting program to track progress and enhance accountability (Goal #5).

NEXT STEPS

The Chief Sustainability Officer and staff are committed to working across departments and with external partners and stakeholders to implement the MBS strategies to achieve Metro's sustainability and resiliency goals. They are in the middle of developing a multi-year implementation plan that identifies priority strategies and actions by year, assigning roles and responsibilities and estimating costs for implementation.

Specifically, in the current fiscally constrained environment, the implementation strategy is designed to achieve agency sustainability and resiliency goals by:

1. Identifying opportunities for improvement or leveraging on existing programs and activities without impacts to costs and program milestones;
2. Working closer with our regional partners, the LA Metro Sustainability Council, and (where appropriate) other LA Metro advisory councils on program implementation; and
3. Using the findings of this report to further identify additional areas of action.

Our progress will be documented in this fiscal year's sustainability report.

We are currently exploring the feasibility of an expanded GHG reporting in our annual report to include emissions from:

- Metro capital projects of all modes, including highway and Active Transportation;
- Metro operations of all modes, including ExpressLanes, Metro Bike Share, parking, and upcoming programs such as MicroTransit;
- Metro programs that reduce VMT and GHGs such as TDM, marketing, and increasing access to services through discounted and more accessible fare collection; and
- Capital projects and programs funded by Metro.

These and any additional opportunities and challenges related to reducing passenger vehicle emissions and help meet state SB 32 targets and the Paris Climate agreement, furthering our

external impact on climate change impact reduction, and partnerships with agencies will be included in future annual reports.

ATTACHMENTS

Attachment A. Crosswalk of CARB Reduction Goals and Metro Policies, Plans and Programs

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Chief Executive Officer

Attachment A. Crosswalk of CARB Reduction Goals and Metro Policies, Plans and Programs

CARB Scoping Plan VMT Reduction Goal	Supportive Metro Policies, Plans and Programs
Implement and support the use of VMT as the metric for determining transportation impacts under CEQA, in place of level of service (LOS)	• Metro Environmental and Planning Program
Land use and community design that reduce VMT	• Joint Development Program • Metro Bike Share • Regional VMT Exchange/Bank (MBS)
Transit oriented development	• Metro Transit Oriented Communities (TOC) Policy • Transit Oriented Communities Implementation Plan
Complete street design policies that prioritize transit, biking, and walking	• Metro Complete Streets Policy • Active Transportation Strategic Plan • First/Last Mile Plan
Increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities	• Metro Transit Projects (Measures R & M) • Fareless System Initiative (FSI) • Low-Income Fare is Easy (LIFE) Program • Youth on the Move Program • U-Pass Program • NextGen
Complete the construction of high-speed rail integrated with enhanced rail and transit systems throughout the State.	• Link US
Promote transportation fuel system infrastructure for electric, fuel-cell, and other emerging clean technologies that is accessible to the public where possible, and especially in underserved communities, including environmental justice communities	• ZEB Policy (Master Plan in Development) • Electric Vehicle Charger Master Plan (In Development)
Increase the number, safety, connectivity, and attractiveness of biking and walking facilities to increase use	• Bicycle Education Safety Team program • Rail to River Active Transportation Corridor • Active Transportation Strategic Plan

	• Metro Bike Share Program
Promote potential efficiency gains from automated transportation systems and identify policy priorities to maximize sustainable outcomes from automated and connected vehicles (preferably ZEVs), including VMT reduction, coordination with transit, and shared mobility, and minimize any increase in VMT, fossil fuel use, and emissions from using automated transportation systems	• Monitoring of Federal, State, and Local efforts on automated and connected vehicles • Participation in APTA and related activities
Promote shared-use mobility, such as bike sharing, car sharing and ride-sourcing services to bridge the “first mile, last mile” gap between commuters’ transit stops and their destinations	• Bike Share/TAP Card Integration • Mobility on Demand • Metro Carsharing/Vanpool Program • First/Last Mile Strategic Plan/Program • Micro Transit
Continue research and development on transportation system infrastructure, including integrated frameworks for lifecycle analysis of GHG emissions with life- cycle costs for pavement and large infrastructure projects, and health benefits and costs savings from shifting from driving to walking, bicycling, and transit use	• Sustainable Acquisition Program • Green Construction Policy • Vision 2028 Strategic Plan
Quadruple the proportion of trips taken by foot by 2030 (from a baseline of the 2010–2012 California Household Travel Survey)	• Vision 2028 Strategic Plan
Strive for a nine-fold increase in the proportion of trips taken by bicycle by 2030 (from a baseline of the 2010–2012 California Household Travel Survey)	• Vision 2028 Strategic Plan
Strive, in passenger rail hubs, for a transit mode share of between 10 percent and 50 percent, and for a walk and bike mode share of between 10 percent and 15 percent.	• NextGen Bus Plan • Vision 2028 Strategic Plan