Los Angeles County
Metropolitan Transportation
Authority
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Los Angeles, CA

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EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 16, 2021

SUBJECT: 2021 MOVING BEYOND SUSTAINABILITY- STATUS REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on Moving Beyond Sustainability.

ISSUE

Per the Metro Board adoption of the agency's ten-year, Sustainability Strategic Plan, *Moving Beyond Sustainability* (MBS), a new bi-annual reporting framework for communicating progress toward achieving the 2030 sustainability goals and targets laid out within the Plan will be followed. This Receive and File report provides the first update summarizing Metro's performance during the 2019 and 2020 calendar years.

BACKGROUND

Metro's annual data collection and reporting process tracks critical performance metrics used to evaluate program and project effectiveness, as well as to drive efficiency and performance improvements - many of which lead to overall long-term cost savings and community improvements. In addition, Metro uses this data to inform decision making and resource allocation in support of regulatory compliance mandates, construction and operations requirements, Board commitments such as Motion 57, and planning goals via *Vision 2028*, the *Long-Range Transportation Plan* and the *Climate Action and Adaptation Plan*. The annual reporting process is also designed to transparently provide this essential data and information to the public with regard to the agency's sustainability and climate action performance.

In 2020, annual reporting on these achievements was transitioned to the Metro Sustainability Reporting Dashboard, available at <https://sustainabilityreporting.metro.net/>.

DISCUSSION

Findings

Despite the unprecedented challenges presented by the COVID-19 pandemic and resulting economic shutdown, Metro's work to advance sustainability, environmental equity, climate action and adaptation, and efficient operations resulted in notable achievements and programmatic improvements in calendar year 2020. Metro's efforts across these areas have yielded tangible contributions to community health through improvements in air quality, reductions in energy and water use, waste disposal and greenhouse gas emissions.

Metro's 2020 performance across all sustainability categories was impacted substantively by the COVID-19 pandemic. The pandemic impacted ridership and therefore translated to reductions in resource use. However, the data also indicates that Metro's ongoing investments in efficient resource use and management were impactful, including:

- In 2020 alone, Metro diverted over 98% of its construction waste from landfill, well exceeding our 2030 target diversion rate of 85%.
- Metro reduced total greenhouse gas emissions by over 29% in 2020, constituting a reduction of nearly 96,000 metric tons of carbon dioxide equivalent ($MTCO_2e$). A significant component of this reduction is Metro's 100% transition to renewable natural gas for the bus fleets.
- Metro also reduced total criteria air pollutant emissions that are known to be dangerous to human health, such as nitrogen oxides (NOx) and particulate matter (PM), through the rollout of near-zero emission engines over the last two years, as well as deployment of electric buses to the Metro G Line (Orange) in 2020.
- Metro continued ensuring the projects we build are sustainable for the benefit of the region by performing climate resilience assessments to mitigate extreme heat for vulnerable communities and a renewable energy assessment to determine the feasibility of solar array installations at facilities.

Visit the dashboard for more information about our 2020 sustainability performance, including clean energy procurement, Green Bond financing, workforce development and more.

Considerations

The recommended action has no direct safety impact. Annual sustainability reporting supports Metro in ensuring current and forthcoming infrastructural and programmatic investments which advance sustainability, increase resilience and enhance safety in our communities are prioritized.

Metro also recognizes the importance of its activities and transportation investments in the overall reduction of regional greenhouse gas emissions. Majority of the metrics outlined in this report are important towards continued sustainability and resiliency of our agency. Metro quantifies its GHG emissions and the benefits of its strategies using the American Public Transportation Association's *Recommended Practice for Quantifying*
Greenhouse Gas Emissions from Transit (APTA Protocol). Metrolink does the same.

The City and County of Los Angeles use the Local Government Operations Protocol and the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) to determine their emissions. They use the information to determine strategies that reduce City of LA and County of LA

overall greenhouse gas emissions.

As Metro's greenhouse gas reduction strategies impact those emissions that are beyond its control, there are also GHG considerations we will explore to ensure that our investments effectively contribute to regional GHG reduction efforts. These include:

1. Metro to continue working with City and County staff in reconciling the greenhouse gas emissions inventory and impacts of our current reduction strategies to the region, since our agency uses a transit-appropriate protocol.
2. Select or develop appropriate methods and tools to quantify the greenhouse gas emissions benefits of Metro activities other than those associated with our fleet that include, for example, construction projects, active transportation, and congestion pricing.

Metro currently reports its GHG inventory and determines the GHG reduction benefits of its strategies through VMT reduction and land-use co-benefits of its investments. Our future reports will include the outcome of the above considerations.

EQUITY PLATFORM

To integrate equity more thoroughly into our planning, the 2020 sustainability performance metrics data was disaggregated, and a geographic assessment of resource use and emissions was performed to examine where resources are being used, where emissions are occurring, and where benefits are being realized. This assessment focused on identifying where benefits are being realized relative to Metro's Equity Focused Communities (EFCs). Below are highlights of Countywide sustainability metrics impacting EFCs.

- **Air Quality:** Metro's electric bus roll-out and the ongoing replacement of older bus engines with new, "near-zero" emission engines are improving air quality across our service territory.
    - The roll-out of electric buses on the G Line in July prevented 9,771 pounds of NOx emissions and 1,168 pounds of PM emissions in the San Fernando Valley in 2020. Of the G Line's 36 stops, 20 (55%) are located in or directly adjacent to EFCs across North Hollywood, Valley Village, Van Nuys, Lake Balboa, Reseda, and Canoga Park.
    - The replacement of bus engines with near-zero emission engines also significantly reduced air pollution in 2020. The two locations with the greatest reductions were Divisions 5 and 18, located in Van Ness and Carson respectively. Across the 22 bus routes served by these two Divisions, 57% of the bus stops are located in EFCs. These buses prevented 12,452 pounds of nitrogen oxide (NOx) emissions across the communities served by these buses, including but not limited to Hyde Park, Inglewood, Florence, Gardena, and Carson.

- **Greenhouse Gas Emissions:** Bus electrification and the fleetwide transition to 100% renewable natural gas (RNG) prevented greenhouse gas emissions across the region. The most significant reductions associated with these efforts were located in the following communities:
    - Reduction of 31,555 metric tons of carbon dioxide equivalent ($MTCO_2e$) from the buses located at Division 1 in the Arts District. 53% of the bus stops served by these RNG-

powered buses are located in EFCs, including but not limited to Chinatown, portions of downtown Los Angeles and Boyle Heights.

- Reduction of 25,474 $MTCO_2e$ from the buses servicing South LA out of Division 5. Over 70% of the bus stops along routes served by Division 5 are located in EFCs, including but not limited to Hyde Park, Leimert Park and Van Ness.
- Reduction of 20,133 $MTCO_2e$ from the buses out of Division 3. The EFCs served by these buses include Lincoln Heights, Highland Park, and Echo Park. Based on available data, 54% of the bus stops served by Division 3 are located in EFCs.

- **Sustainable Facility Design and Construction:** Thirteen of Metro's 16 facilities which have either achieved LEED certification of Silver or higher, or are currently undergoing the certification process, are located in and serve EFCs. These state-of-the-art, new facilities support efficient operations, reduce energy and water consumption, ensure continuity of service and provide local aesthetic benefits.
  - Metro's Location 64 <https://thesource.metro.net/2019/09/30/new-location-64-maintenance-of-way-building-is-now-complete/> LEED Gold facility located between Downtown Los Angeles and Boyle Heights is a recent success story. The iterative project development process effectively integrated community feedback into the final design by engaging passengers, local artists and community groups who contributed diverse perspectives and vision for the building façade and unique artwork displayed. This process to authentically engage and empower the local community in our work connecting LA County is a best practice.
  - Metro's Location 64 <https://thesource.metro.net/2019/09/30/new-location-64-maintenance-of-way-building-is-now-complete/> maintains the Metro B and D Lines, which serve EFCs across Downtown, MacArthur Park, Koreatown, Little Bangladesh, East Hollywood, Little Armenia, Thai Town, Hollywood and North Hollywood. 15 of the 22 total stations (68%) along these two lines are located in EFCs.

- **Water:** Recent investments in bus wash efficiency upgrades and smart irrigation controllers have significantly contributed to a reduction in Metro's water usage by 11% percent in 2020. As sources for Metro's water supply generally come from outside the region, benefits to local EFCs and/or marginalized communities are indirect, and no direct harms are caused by these strategies.

Many of the areas identified above as receiving the greatest benefits from Metro's sustainability programs are also areas that have high CalEnviroScreen scores for pollution burden, and they also overlap with Equity Focused Communities (EFCs).

Staff will use the results of this assessment to target the planning and implementation of capital and operations projects and programs identified in *Moving Beyond Sustainability* within geographic areas and sociodemographic communities that have historically faced the greatest negative environmental and public health impacts.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This report supports Metro's third, fourth, and fifth Strategic Plan Goals. The strategies and actions outlined in *MBS* and highlighted in this update advocate for equitable access to opportunity in alignment with 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 agencies (Goal #4). *MBS* also sets quantifiable targets and timeframe for achieving sustainability along with a robust reporting program to track progress and enhance accountability (Goal #5).

NEXT STEPS

Staff will continue to monitor, evaluate and report on agency-wide sustainability performance on an annual basis in alignment with our APTA and *MBS* commitments. Our sustainability reporting will continue to utilize a data-focused approach which empowers Metro to fulfills compliance requirements and Board commitments such as those of the *CAAP*, while creating an adaptive design framework to guide our work. The resulting performance metrics from this reporting cycle will also be used to inform the prioritization of programs and projects in FY22.

Continued outreach for MBS reporting will be conducted through Metro's Sustainability Council and throughout the County with support from our Marketing & Communications department. Staff will also work with the CBO partnering strategy team to share reporting outcomes and foster dialogue with environmental justice communities.

Staff will report back on the steps it will undertake to determine additional regional greenhouse gas emissions benefits from its investments and programs. This includes an addendum to the MBS report to address regional greenhouse gas emissions by December 2021.

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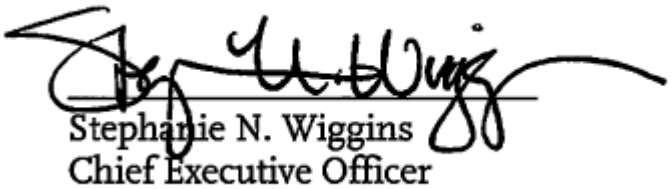

Stephanie N. Wiggins
Chief Executive Officer

LA Metro
Moving Beyond Sustainability
Status Report

September 16, 2021

Status Report Highlights

Despite the impacts of COVID-19, Metro's work to advance sustainability resulted in notable achievements:

- Reduced total GHG emissions by over 29% from 2019.
- Reduced total criteria air pollutant emissions by 41% from 2019.
- Conducted climate resilience and renewable energy assessments on over 1,300 assets to ensure sustainability benefits to the region.
- Performed geographic assessment of resource use and emissions to examine where benefits and burdens are being realized relative to Metro's Equity Focused Communities.

Building on Emissions Framework

- ECSD will build on emissions framework provided in Climate Action and Adaptation Plan (CAAP) and Moving Beyond Sustainability by evaluating Metro's impacts on Countywide VMTs and GHGs in relation to State and regional reduction goals

- December 2021: Emissions Framework Update will outline GHG quantification and possible reduction pathways in existing/planned investments and programs (incl. any that potentially increase GHGs)
  - Continuing inter-agency collaboration on GHG emission reduction strategies (City and County of LA, Caltrans, SCAG, Metro)
  - Alignment of Methodologies and Regional goals

To be Evaluated: Emissions Impacts

Bus and Rail Transit Expansion

- Measure R & Measure M expansions, expanded programs, partnerships, bold policies

NextGen Bus Service

- Provide faster, more frequent and reliable service, improving transportation equity

Travel Pricing Policies & Transportation Demand Management

- Changing the economics of how people travel. Express Lanes, Fareless System Initiative, Congestion Pricing. Incentives for Telecommuting and Rideshare

Active Transportation

- Bike and ped infrastructure to connect shorter trips, enabling system use for longer trips. Needs a more universal network of safe streets to maximize climate impact.

Highways Program

- Improve GHG and VMT assessments of Highway Projects; VMT mitigation program being developed.