How Do We Properly Bounce Back?
Reflections on Climate Change Impacts, Infrastructure, and Equity

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June 9: Metro Employee Day of Remembrance
Los Angeles County – The Largest US Economy

- 88 incorporated cities
- Large area – 4,752 mi² (12,307 km²)
- Larger than the states of Rhode Island and Delaware combined
- Large Population
  - Over 10 million people
  - 17.6 million in surrounding counties
  - More than 42 states
- Diverse – More than 40% foreign-born, over 220 languages spoken
- The 21st largest economy in the world; 16th if four surrounding counties are included (SacBee, 2012)
LA Metro is Los Angeles County’s...

Regional Transit Planner/Funder

Regional Transit System Builder

Regional Transit Operator
Metro Transit Program (Existing and Future)

Existing Lines:
- 96 stations
- 105 miles
- 370,000 Daily Boardings

Existing + Measure R:
- Total: 197-205 stations, 236+ miles
- 390,000+ New Boardings

$120B Measure M:
- Voter approved in November 2016

Getting Ready for the 2028 Olympics and 2026 World Cup
Metro Transit & Highway Projects:
The 40-Year Plan
Critical and At Risk Facilities

Stressors
- High heat days
- Precipitation
- Flooding
- Wind
- Wildfire
- Earthquake
- Sea Level Rise
vs. Vulnerable Populations
Then the pandemic hit...
COVID 19 Impact 1: Ridership

Average Estimated Ridership - Systemwide Bus and Rail

http://isotp.metro.net/MetroRidership/Index.aspx
COVID 19 Impact 1: Revenue

LA Metro Sources of Revenue
- Sales Tax
- Fare box recovery
- Toll Revenue
- Others

https://boardagendas.metro.net/board-report/2020-0310/
What it would take to keep L.A. traffic from returning to soul-crushing levels? by Nick Goldberg

The article concluded:

“Apparently neither the soul-crushing traffic nor the cataclysmic threat of global climate change is enough to convince us to change our behavior. So, make good use of the extra time in your day while you have it. It’s not likely to last.”
Traffic Observations: June 3, 2020
OUR NEXT LA*

2020 Long Range Transportation Plan

Our Next LA* is better transit.
- Transit Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is less congestion.
- Highway Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is complete streets.
- Active Transportation Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is access to opportunity.
- Joint Development Projects
- Strategies & Actions
- Performance Measures

Funding a Transportation Revolution
- Supporting Our Partners
- Operations & Maintenance

Bold New Policies & Programs
- Plans for today, and the decades to come.
Sustainability Accomplishments Timeline

Metro’s Environmental Accomplishments

2007
- The Metro Environmental Policy committing to the use of the ISO 14001 standard is adopted.

2009
- The Metro Board adopts the Metro Energy and Sustainability Policy.
- The Complete Streets Policy is adopted.

2010
- Metro implements the Metro Sustainability Implementation Plan (MSIP).
- The Green Construction Policy (CCP) is adopted.

2012
- The Metro Countywide Sustainability Planning Policy and Implementation Plan is adopted.

2013
- The First/Last Mile Strategic Plan is adopted.

2014
- The Metro is the first transit agency in the nation to install and operate electric vehicle chargers.

2015
- Metro achieves 2.4 MW renewable energy capacity from solar panels at seven facilities.

2016
- Metro works with its partners regionally and strategically to create a more resilient LA.

2017
- Metro installs its 100th EV Charger.
- The Expo Line Phase 2 achieves Envision award.

2018
- Metro is developing a Sustainable Acquisition Program.
- Metro develops the Systemwide Station Design Standards Policy.

2019
- Metro adopts the WSAB Transit Oriented Development Strategic Implementation Plan.
- Metro Launches LA Metro Bikeshare.

Metro has 11 LEED certified buildings, including 7 Gold and 3 Silver ratings, as well as 2 Envision awarded projects.
Mitigating GHG Emissions

Goals
• 2030: 79% reduction relative to 2017 levels
• 2050: 100% (zero emissions) relative to 2017

GHG Mitigation Measures
• Zero emission fleets
• Renewable energy supply
• Green buildings
• EV employee commuting

Forecasted emissions with Metro’s 13 reduction measures versus Business as Usual (BAU) emissions.

Metro reduced GHGe by 12% from 2010 to 2017
Building Climate Resilience

Goal

• Create a climate-resilient organization and transit system: prepared, ready and able to provide consistent services to the people of LA County

Resiliency Strategies

1. Make climate resilience an organizational priority
2. Establish a flexible approach to adaptation

Metro increased the number of climate hazards analyzed from 3 to 7 and considered far more assets than just Metro owned assets.
Comprehensive Planning

- Vision 2028
- LRTP
- Equity Platform
- Metro Plans & Policies
- Board Motions
- Stakeholder Input

Self-funding
Climate Safe Infrastructure, AB2800 (Quirk, 2016)

- Climate Safe Infrastructure as Policy
- Permanent Funding for Science and Infrastructure
- Reinvent Engineering Process
- Training: All Phases of Infrastructure
- Development of Standards/MOPs
- Changes in Procurement
- Climate Safe Commission

AB2800 (Quirk/Gonzales: June 4, 2020): Making the provisions of the original bill extended indefinitely.
Convened and Chaired by the CA State Treasurer

Purpose: *Expand financing for climate-friendly infrastructure through green bonds*

Consists of 27 academics, engineers, investors, public policy experts, attorneys, and climate scientists

Outcomes
- Facilitate and educate investors and public on the power of green bonds and similar
- Develop a green bonds framework in CA
Efforts on the ASCE Sustainability Roadmap
- Standards
- Incorporating Climate Data into Practice
- Developing Procurement Documents
- Certification

International Coalition on Sustainable Infrastructure
- Guidance, Tools and Standards
- Finance and Funding
- Innovation
- Leadership and Life-Cycle
Everything has changed
- Assumptions
- Baseline conditions

LA Metro Recovery Task Force

What happens to the things that we are already doing?
Are using adequate and correct tools?
Post Lock-Down Conditions are making us rethink the new LA Metro

Operations challenges
  - Logistics, workforce and cost challenges
  - What does the transition look like?
  - What does the tipping point look like?

Adjustment to climate and sustainability goals: 2030/2050

Operations adjustments due to structural deficit
Post Lock-Down: What’s Next?

❖ Leverage Agency Activities to Reduce High Unemployment
❖ Reduce the Impacts of Lost Ridership
❖ Rethink the Use of Infrastructure Due to Decreased Congestion
❖ Protect and Create Better Environment for Workers
❖ Towards A More Equitable Society
The New Reality?
The New Reality?
The New Reality?
The New Reality?

Mariachi Plaza, Metro Gold Line
COVID-19 Test Location
The New Reality?
The New Reality?

Joe Lemmon, Metro, 2020
The New Reality?
Metro is still in service for those who serve us…

Where we were on 03/31/20
Why Are Really Doing These...
Questions/Discussion

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