



# Agenda

## Metro Sustainability Council

LA Metro HQ  
William Mulholland  
15<sup>th</sup> Floor  
One Gateway Plaza  
Los Angeles, CA

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### Agenda

- a. Welcome/Remarks: Chair (5 min)
  - b. Approval of Minutes: Chair (2 min)
  - c. Final CAAP Overview Presentation: Andrina/Evan (40 min)
  - d. Resiliency Framework Presentation: Andrina (15 min)
  - e. Sustainability Strategic Plan/Motion 57 Update: Alvin/Paul/Christine (10 min)
  - f. Sustainability Acquisition Framework Presentation: Carolina/Craig (10 min)
  - g. County of Los Angeles Draft Sustainability Plan: Kristen (20 min)
  - h. Action Items Log: Aaron (2 min)
  - i. General Public Comment (5 min)
- 



Metro Sustainability Council



Sustainability Council  
 FY19 DRAFT Meetings Arc  
 As of *February 15, 2019*

Meeting	Agenda Topics	Outcomes
September 21, 2018	*New Metro Role	*Bylaws amended to reflect new Metro role
	*Motion 57 Progress Update	*All participants leave meeting with a basic understanding of Metro’s current progress related to Motion 57
October 12, 2018	*Introduce Climate Action Plan (CAAP) Update topic           *Oral Update on LRTP Outreach and Activities	*All participants leave meeting with a basic understanding of Metro’s current practices related to CAAP, as well as best practices in this field (related to transportation projects), and challenges related to this topic. *Direction provided from the Council to Metro staff on developing initial recommendations on CAAP update; additional information needs identified  *All participants leave meeting with a basic understanding of the LRTP development progress and provide feedback as part of the outreach effort.
November 9, 2018	*Introduce Resiliency Framework topic	*All participants leave meeting with a basic understanding of Metro’s current practices related to Resiliency, as well as best practices in this field (related to transportation projects), and challenges related to this topic. *Direction provided from the Council to Metro staff on developing initial recommendations on a Resiliency Framework; additional information needs identified

	<ul style="list-style-type: none"> <li>*Introduce Green Procurement Policy topic</li> <li>*CAAP Workshop Prep</li> </ul>	<ul style="list-style-type: none"> <li>*All participants leave meeting with a basic understanding of Metro's current practices related to Green Procurement, as well as best practices in this field (related to transportation projects), and challenges related to this topic.</li> <li>*Direction provided from the Council to Metro staff on developing initial recommendations on Green Procurement Policy; additional information needs identified</li> <li>* Distribute Council assignments to prepare for the December workshop discussion.</li> </ul>
December 14, 2018	<ul style="list-style-type: none"> <li>*CAAP Update: Introduce Candidate GHG Reduction Strategies</li> <li>*Draft EV Implementation Plan</li> </ul>	<ul style="list-style-type: none"> <li>*Direction provided from Council to Metro Staff on GHG reduction strategies in a workshop format</li> <li>*All participants will leave the Council meeting with a basic understanding of Metro's current practices related to EV charging, Metro's future EV charging goals, and challenges related to this topic.</li> </ul>
January 11, 2019	<ul style="list-style-type: none"> <li>*Present draft Candidate Climate Adaptation Strategies; continue discussions re: CAAP Update</li> <li>*Present update to the Green Procurement Policy</li> <li>* GHG Inventory/Forecast</li> </ul>	<ul style="list-style-type: none"> <li>*Feedback provided by the Council to Metro staff on draft Candidate Climate Adaptation Strategies; CAAP Update</li> <li>* Provide an update and receive feedback input on the methodology and results of GHG inventory</li> </ul>
February 8, 2019	<ul style="list-style-type: none"> <li>*Adaptation &amp; Resiliency Workshop</li> <li>*Presentation on LRTP Values Framework</li> <li>* GHG Reduction Analysis</li> <li>*Draft Green Procurement</li> </ul>	<ul style="list-style-type: none"> <li>*Feedback provided by the Council to Metro staff at the Workshop</li> <li>* All participants leave meeting with a basic understanding of the LRTP development progress, including the Values Framework and provide feedback as part of the outreach effort.</li> <li>*Provide an update and receive</li> </ul>

	Policy	feedback from Council on the GHG Reduction Strategies
March 8, 2019	<ul style="list-style-type: none"> <li>*Review Draft CAAP Update and presentation</li> <li>*Green Procurement Policy</li> <li>*Metro Sustainability Implementation Plan (MSIP) Update (Draft) - Motion 57 Progress Update</li> <li>*EV Implementation Plan</li> </ul>	<ul style="list-style-type: none"> <li>*Draft CAAP Update and comment matrix sent to Council; presentation on Report overview, organization, key highlights and findings; request comments by 3/22; send final draft CAAP to Council on 3/29.</li> <li>*Feedback provided by the Council to Metro staff on the draft Green Procurement Policy</li> <li>* All participants leave meeting with a basic understanding of Metro's current progress related to Motion 57 as outlined in the MSIP update.</li> <li>*Consensus Comments received from the Council to Metro Staff on the draft EV Implementation Plan</li> </ul>
April 12, 2019	<ul style="list-style-type: none"> <li>*Final CAAP Update presentation</li> <li>*Adopt Green Procurement Policy</li> <li>*Receive &amp; File Update of Motion 57 to the Metro Board</li> <li>* County of Los Angeles Draft Sustainability Plan</li> </ul>	<ul style="list-style-type: none"> <li>*Presentation to the Council on the Final CAAP Update</li> <li>*Green Procurement Policy recommendations &amp; metrics adopted by the Council</li> <li>*Feedback provided by the Council on County Sustainability Plan</li> </ul>
May 10, 2019	<ul style="list-style-type: none"> <li>*Adopt Resiliency Framework</li> </ul>	<ul style="list-style-type: none"> <li>*Resiliency Framework recommendations &amp; metrics adopted by the Council</li> </ul>
June 14, 2019	<ul style="list-style-type: none"> <li>*Metro Board approval of CAAP Update &amp; Resilience Policy</li> <li>*Draft FY20 Meetings ARC</li> </ul>	<ul style="list-style-type: none"> <li>*All participants discuss potential policy topics for FY20 cycle</li> </ul>



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  - c. Draft CAAP Overview Presentation: Andrina/Evan (15 min)
  - d. MSIP + Motion 57 Update: Alvin/Christine/Paul (15 min)
  - e. EV Implementation Plan Comment Matrix Presentation: Alvin/Andrew (20 min)
  - f. Action Items Log: Aaron (2 min)
  - g. General Public Comment (5 min)
- 



## MEETING MINUTES

Sustainability Council Meeting

Friday, March 8th, 2019

### a. Welcome/Remarks

**Jennifer Kropke:** Happy International Women's Day!

New Council Members Self-Introduction

**Chair Small:** Air quality alternate seat is vacant.

### b. Approval of Minutes (Chair Small)

No comment on minutes.

*Minutes approved.*

### c. Draft CAAP Overview Presentation (Andrina/Evan)

Presentation slides included in electronic meeting packet.

*Note: To reduce paper use, hard copies for presentations will no longer be included in meeting packets. Electronic copies were sent out prior to the meeting by Aaron Santos.*

**Andrina Dominguez/Evan Rosenberg:** Present Draft CAAP, which includes feedback from past Sustainability Council discussions and workshops. Key topics of the presentation include:

- Review of the report and its organization
- Key highlights and findings
  - Metro's GHG emissions have been reduced by 12% since 2012
  - "Business-As-Usual" forecast of future emission reductions
  - Continued risk despite mitigation efforts
  - Flexible approach to resiliency efforts
  - Next steps including development of implementation plan
- Review of comments received to date, which have been incorporated into the report or noted for other projects to which they are relevant
- Comments addressed:
  - Recognition of co-benefits of GHG measures for buildings
  - Adjustments to be people-centric
  - Additional explanation in risk analysis



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- Streamlines adaptation pathways and more intuitive examples

The additional comment submittal/review process will be as follows:

- **March 8<sup>th</sup>:** Draft CAAP and excel comment matrix will be sent out by Aaron Santos via email
  - *Note that comments are to be submitted on the content of the Draft CAAP and not visual elements/formatting*
- **March 14<sup>th</sup> 12-2pm:** Stakeholder opportunity for Engagement at Metro Headquarters
  - Calendar invite to be sent out by Aaron on 3/8
- **March 22<sup>nd</sup>:** Deadline to submit comment in excel matrix to Aaron Santos via email ([SantosAa@metro.net](mailto:SantosAa@metro.net))
- **March 29<sup>th</sup>:** Final draft CAAP and responses to comments will be sent out to Sustainability Council members via email
- **April 12<sup>th</sup>** (Sustainability Council Meeting): brief presentation on final CAAP and comment resolution, Council to adopt final CAAP
- **May:** Report Production
- **June:** Final formatted CAAP to be reviewed at Board Meeting

#### Feedback and Comments

**Q (Joel Levin):** Are you looking at county overall since Metro ridership lowers emissions overall in Los Angeles?

**A (Evan):** That is included in our displacement analysis, as we aren't focusing on how to expand displacement in this CAAP because that pertains to work Metro, as a whole, is doing. We aim to focus on mitigation of our own emissions and resiliency.

**A (Andrina):** There is a call-out box in the report that points out how Metro affects diminishing overall emissions in LA, and includes a rough calculation

**A (Cris Liban):** the county is coming out with its first Sustainability Plan, and because of the modular nature of the CAAP, we will be able to adjust it with the roll-out of this plan.

(NEXT TOPIC)

**Q (Bruce Reznik):** What are the details/format of the March 14<sup>th</sup> workshop?

**A (Evan):** We will have an agenda with a certain amount of time allocated per topic. Each topic will be introduced for context. The entire project team will be available at this workshop to accommodate specific comments from individuals with varying subject matter expertise.

(NEXT TOPIC)

**Q (Bruce):** Interested in knowing the responses to comments that have already been provided,



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**A (Evan):** We will be providing the comment matrix with specific responses. Comments that have already been given have either been incorporated into the report or can be used for other ongoing projects.

**A (Cris):** For example, the MSIP has been a sort of “mother plan”, and is broader and some comments can be incorporated there

**A (Andrina):** at the workshop, we will also be providing explicit responses.

(NEXT TOPIC)

**Q (Walker Wells):** Is there a consideration for urban forestry or green infrastructure in terms of sequestration?

**A (Evan):** This was not in our scope as we are looking specifically at our own emissions

**A (Walker):** Because plants are fixed, you could consider planting new trees without doing an analysis of existing trees

#### **d. MSIP + Motion 57 Update (Alvin Kusumoto/Christine Marez)**

Presentation slides included in electronic meeting packet.

**Alvin Kusumoto:** Update on MSIP and incorporation of Motion 57.

- Everything is in draft form and looking for feedback
- Working title “2028 Sustainability Strategic Plan,” open to suggestions
- Also looking for feedback on mission and vision
  - Mission: To facilitate a culture of sustainability in a world class transportation system that enhances the quality of life for all who live, work, play, within LA County.
  - Vision: Create an organizational culture and workforce that continually integrates the principles of sustainability in all aspects of decision making and execution.

**Christine Marez:** We will be holding a workshop on March 12<sup>th</sup> to continue to gather feedback. The main categories for discussion will be:

- Energy
- Water
- Emissions and Pollution Controls
- Materials and Construction/Operations Optimization
- Climate Adaptation and Resiliency
- Livable Neighborhoods
- Equity
- Economic and Workforce Development



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Motion 57 included in packet but will not be discussed for time purposes. Comments on this can be submitted to Aaron by email ([SantosAa@metro.net](mailto:SantosAa@metro.net))

#### Feedback and Comments

**Q (Roy Thun):** The mission statement reads well, although it seems the vision of this plan goes beyond just the county. Metro wants to be the leader in sustainability in the country and potentially in the world. Would it be better to add something to the statement about whether the perspective is regional, statewide, nationwide, etc.?

**A (Alvin):** We align with LA county as that is within Metro jurisdiction

**A (Christine Marez):** We want to stay within Metro's jurisdiction, but we can note that there is a larger influence.

**A (Thomas Small):** Thanks Roy for his comment, as this kind of discussion is exactly within the goals of this council.

(NEXT TOPIC)

**Q (Michael Kadish):** Within the mission and vision statement, what does it mean "to facilitate a culture of?" Are we trying to create a culture or achieve concrete goals?

**A (Walker Wells):** It is both—the culture is the foundational element, but we will need to figure out metrics to measure concrete goals.

**A (Michael):** Science and data will be important.

**A (Christine):** As we move forward, there will be more quantitate elements.

(NEXT TOPIC)

**Q (Barbara Marquez):** Are you incorporating the triple bottom line and economy?

**A (Christine):** That is included in the plan, but we need to keep the mission statement succinct and in line with Metro's overall goals.

(NEXT TOPIC)

**Q (Kat Janowicz):** It would be important to include work done for the Sustainability Report Project as the report is being finished. The research done for the report looked at a variety of metrics nationwide

**A (Christine):** Yes, we will be incorporating this, including the data.

(NEXT TOPIC)

**Q (Kat):** For the component of the goods movement, work has been done before such as the new Caltrans Long Term Transportation Plan, but it has not made enough progress regionally. It would still be beneficial to look at the goods movement portion of the plan.



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**A (Cris):** Cambridge Systematics is preparing a document that aligns with some aspects of the goods movement, with which we are involved but would like to seek more engagement

(NEXT TOPIC):

**Q (Thomas Small):** Should the category “Equity” be referred to as “Equity and Inclusion”?

**A (Christine):** Yes, that will be a good revision as inclusion is a topic within this section.

(NEXT TOPIC)

**Q (Roy):** Is part of the action that comes out of the strategy update going to expand the ARC?

**A (Cris):** ARC reflects what the incoming Chair’s priorities are, but there are additions to it such as the EV plan. We are unsure of what the priorities will look like for next year.

(NEXT TOPIC)

**Q (Hilda Blanco):** How will you deal with issues of automation that may arise by 2028?

**A (Cris):** OEI is interested in this, but there has not been an active conversation. This is still emerging and will be taken into consideration.

(NEXT TOPIC)

**Q (Caryn Mandelbaum):** Motion 57 also includes stormwater, which is not shown on the slides

**A (Christine):** The slides are just a sample, the handout in the agenda packet includes additional topics such as stormwater.

(NEXT TOPIC)

**Q (Dough Dietrich):** Appreciates the idea of culture but points out that some resistance can be anticipated due to time and money-related reasons. We need to consider how to create buy in and support, as well as come up with a mitigation strategy for this.

**A (Alvin Kusumoto):** Our workshops include many of these stakeholders; they are part of the process. When time for implementation comes, we will have already laid the groundwork.

**A (Bryan Pennington):** The Council only sees a small part. Asks Cris to discuss SCE Outreach and involvement

**A (Cris):** We are seeking to expand our Energy Program, and have been coordinating with utility companies, as well as local and national stakeholders. We are also receiving encouragement from the American Public Transportation Society to get involved on an even larger scale. Emphasizes that there are 147 initiatives (an increase from the previous 128) with which we are involved, not just ECSD but other departments also.



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**Comment (Anthony Brower):** This is great work, as the intent is to achieve meaningful and measurable impact. Proposes name “Impact in Motion”

(NEXT TOPIC)

**Comment (Barbara):** Caltrans is doing a similar thing and we will have workshops and we would like to align goals to have largest possible impact

Council members are to reach out to Christine Marez ([cmarez@ccorpusa.com](mailto:cmarez@ccorpusa.com)) or Samantha Courville ([scourville@ccorpusa.com](mailto:scourville@ccorpusa.com)) if they have not received a calendar invite for the 3/12 MSIP Workshop and are interested in attending.

#### e. EV Implementation Plan Comment Matrix (Alvin/Andrew)

**Andrew Quinn:** presents on the main comments received in regard to the EV Implementation Plan, which is due to be finalized in Spring/Summer 2019.

- One of the standout comments included a comparison of EV prices to gasoline prices, which has been incorporated
- Outside of scope comments included:
  - Contracted bus fleets
  - Renewable energy generation (more pertinent to CAAP)

**Andrew** also speaks about the list of different funding opportunities, provided in agenda packet.

#### Feedback and Comments

**Q (Joel):** Would like to see an analysis on whether we are spending more money on the process of collecting funds than we are actually collecting. Discusses that some cheaper level 2 or level 1 chargers may actually have lower operational costs than what is being spent on raising funds, so it may be most cost-effective to just give them away

**A (Cris):** There is a serious consideration with giving away EV charger electricity as it may trigger a gift of public funds issue.

**A (Joel):** What if we integrated this as a benefit that came with the price of parking?

**A (Andrew):** We can consider this because Metro does not have a uniform parking policy

**Comment (Barbara):** Caltrans has investigated this before, and the Governor has shared that is not so. Willing to provide additional info to Andrew if requested.

(NEXT TOPIC)

**Q (Will Wright):** Is providing EV charging going to discourage bus/rail ridership?



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**A (Andrew):** We are not building new parking lots—people were already driving, we are just encouraging them to transition to a more sustainable form of driving.

(NEXT TOPIC)

**Q (Jennifer Kropke):** What is the communication between EV Planning and Bus Electrification Planning?

**A (Andrew):** We coordinate closely, as the bus electrification project is enacting a substantial amount of work. There is a monthly meeting for the purpose of collaboration.

(NEXT TOPIC)

**Q (Jennifer):** Would like to see a list of not just available funding opportunities, but specifically those for which Metro has already applied and with what success

#### **f. Action Items Log (Aaron)**

- Provide list of past 2 years of funding opportunities Metro has applied for and results.

#### **g. General Public Comment**

**Announcement (Thomas Small):** Ciclavia had a successful event, with the sponsorship of LA Metro. A bike hub opened in Culver City, which is one of the steps we are taking in filling in the gaps of the transportation chain.

(NEXT TOPIC)

**Announcement (Joel):** Plugin America will be holding an Earth Day event, looking for resources

**Comment (Salem Afeworki):** Invitation to Council to think about holding an Earth Day Event

**A (Dilara Rodriguez):** There is a fair on April 25<sup>th</sup> that will showcase Environmental practices and we could potentially have a table for EV Project.

(NEXT TOPIC)

**Announcement (Kat):** Status update meeting at Port of Long Beach for their CAAP. Reach out to Kat if you are interested in attending.

(NEXT TOPIC)

**Comment (Doug):** Economic backdrop for recycling markets is changing- stopping of shipping recyclables to Asia- wondering if anyone has ideas on how to address this or begin creating market in US for recycling

**A (Thomas Small):** To address this in Culver City, we are being pushed toward zero waste, including a public education program and more robust composting system.



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**A (Hilda Blanco):** There is an interesting circular economy model emerging where companies that produce a good are responsible for recycling it at its end-of-life

**ATTENDEE LIST**

<b>ATTENDED</b>	<b>COUNCIL MEMBER</b>	<b>NOT ATTENDED</b>	<b>COUNCIL MEMBER</b>
Y	Anthony Brower	N	Belinda Faustinos
Y	Berwyn Salazar	N	Bryn Lindblad
Y	Bruce Reznik	N	Carolyn Hull
Y	Caryn Mandelbaum	N	Charles Favors
Y	Doug Dietrich	N	Cindy Montanez
Y	Hilda Blanco	N	David Diaz
Y	Jack Sahl	N	Elizabeth Roades
Y	Jennifer Kropke	N	Emily Freund
Y	Joe Ablay	N	Ghina Yamout
Y	Joel Levin	N	James Okazaki
Y	Kat Janowicz	N	John Harriel
Y	Kimberly Colbert	N	John Williams
Y	Mehran Mazari	N	Kristen Torres-Pawling
Y	Michael Kadish	N	Lauren Faber
Y	Patricia Menjivar	N	Mark Hunter
Y	Roy Thun	N	Mark Kempton
Y	Salem Aferworki	N	Michael Samulon
Y	Stephen Cheung	N	Michael Swords
Y	Thomas Small	N	Mike Bagheri
Y	Wendy Nystrom	N	Pavitra Rammohan
Y	Will Wright	N	Rita Kampalath
		N	Yareli Sanchez

**ATTENDEE LIST**

<b>ATTENDED</b>	<b>NON-COUNCIL MEMBER</b>	<b>NOT ATTENDED</b>	<b>NON-COUNCIL MEMBER</b>
Y	Carolina Coppolo	N	Debra Avila
Y	Bryan Pennington	N	Nadine Lee
Y	Aaron Santos	N	Paul Backstrom
Y	Cris Liban		
Y	Richard Clarke		



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**DRAFT**

Comments still being reviewed & incorporated. Slides may change prior to April 12<sup>th</sup> Meeting.

# Metro Climate Action and Adaptation Plan (CAAP)

## Final CAAP Overview— Sustainability Council



**Metro**<sup>®</sup>

April 12, 2019

# Project Overview

Month	GHG Inventory & Forecast	GHG Reduction Measures	Adaptation	Final CAAP
Dec	(-) Completed <i>final</i> inventory and forecast estimates	(-) Held Sustainability Council Workshop (-) Completed <i>final candidate measures list</i>	(-) Completed <i>draft</i> vulnerability and criticality assessment	
Jan		(-) Complete <i>draft</i> measure analysis	(-) Present <i>preliminary results</i> to Sustainability Council	
Feb		(-) Complete <i>final</i> measure analysis/ report writing	(-) Hold Sustainability Council workshop	(-) Complete <i>draft</i> CAAP
Mar				(-) Present <i>draft</i> to Sustainability Council
Apr				(-) Present comments, responses, & proposed revisions to Sustainability Council (-) Report production
May				(-) Report production
June/July				(-) Send to Board





# March 14<sup>th</sup> Engagement Recap

- **29 unique comments/questions, such as:**
  - Communication and engagement with the public
  - Making adaptation section specific, actionable, and trackable
  - Additional information related climate risk (AQ, drought, regional perspective)
  - Green infrastructure inclusion
  - CAAP survey data
  - Relationship to other planning efforts (LRTP, Equity Framework, SCAG, etc.)
  - New versus continuing GHG measures
  - Status and timeframe for GHG measures
  - Tracking and monitoring
  - Regional VMT nexus
  - Improve Exec. Summary (goals, costs, implications, next steps)





# April 2<sup>nd</sup> Comments Recap

- **36 unique comments/questions, such as:**
  - **Broader risk/resiliency discussion (regional implications and role, impacts to and role of people)**
  - **Highlight multiple benefits and co-benefits of GHG mitigation and adaptation**
  - **GHG goal setting (commitments and timeframes)**
    - **Buildings and facilities (PV, energy storage, retrofit standards, lighting, appliances)**
    - **Buses (non-contracted and contracted)**
  - **Electrification of freight**
  - **Improve quality of passenger experience**
  - **Reassess measures related to renewable energy procurement and fuels**
  - **Do not recommend carbon offset purchases**

# April 2<sup>nd</sup> Comments Recap (continued)

- **Co-benefits and regional benefits discussion lacking**
- **Rethink Metro direct control criteria**
- **Role of green infrastructure in GHG mitigation and adaptation**
- **Consistency with local initiatives**
- **Stakeholder engagement process improvements**
- **Governance restructuring**
- **Barriers to implementation discussion**



# Comment Incorporation/Response

- **Goal setting**
- **GHG measures**
- **Adaptation actions**
- **Implementation**



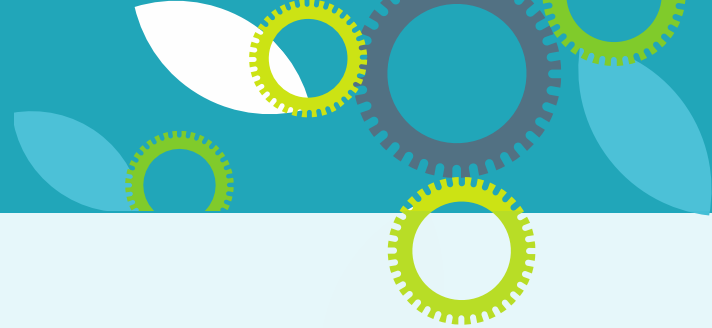
## Remaining Key Dates

Date	Item
April/May	Report production
June/July	Final CAAP (formatted) to be sent to Metro Board



# Looking Ahead

- **Continuing to implement in FY 20**
- **Annual Sustainability Reporting**
  - 2019: Energy & Resource Report
  - 2020 and beyond: Annual Agency-wide Sustainability Report



Thank you!  
Questions?



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## Interoffice Memo

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Date April 8, 2019

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To Metro Sustainability Council

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From Cris Liban, Executive Officer, Projects Engineering

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Subject Metro Climate Action and Adaptation Plan Comment Resolution

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Metro staff sincerely appreciates the time, effort, and collaboration of the Metro Sustainability Council (Council) on the update the Metro Climate Action and Adaptation Plan (CAAP). At the October 2018 meeting, Metro introduced the Council the the CAAP Update. Since then, Council members and Metro staff have engaged monthly on the CAAP Update, and the Council has provided valuable feedback.

On March 8, 2019, Metro staff presented an overview of the Draft CAAP Update report to the Council, and a copy of the report was disseminated later that day. To facilitate an engaging partnership on the Draft CAAP Update, an engagement opportunity meeting was held at Metro headquarters on March 14<sup>th</sup>, during which time Metro and consultant staff were available to review the draft report, answer any questions, and capture verbal comments. Additionally, to provide the Council more time for a meaningful and thorough review, the deadline for comments was extended from March 22<sup>nd</sup> to end of business April 2<sup>nd</sup>.

Metro staff has since reviewed the excellent and insightful comments submitted by Council members. Metro truly appreciates the commitment to engagement and has addressed the comments in the most technically appropriate manner. Response to all comments received orally at the March 14<sup>th</sup> meeting as well as those received electronically by the deadline were included in the attached comment matrix. For a detailed overview of responses to all comments, please review the accompanying comment matrix.

Many of the comments submitted by Council members identified critical issues, which Metro staff has categorized as emerging issues. Accordingly, the CAAP Update is being revised to include a section for these emerging issues within the Implementation Chapter. This section will identify aspirations for the agency, including strategy acceleration, entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.). Additionally, these emerging issues will be addressed fully in the Metro Sustainability Strategic Plan, currently in development, as well as other Metro planning documents brought forth to the Metro Sustainability Council.

Sustainability Council Comments and Responses for the Draft 2019 Metro CAAP

April 9th, 2019

#	Reviewer	Chapter #	Page #	Line #	Sustainability Council Comment	Response
1	March 14th Meeting*	3			Would like to see more communication and involvement with public in list of actions. It's important to communicate these risks to the public.	External communication is a major component of how Metro is planning around risk, and the CAAP includes a critical external communication component as outlined in principle# 5 in Chapter 4. The CAAP also emphasizes the need to coordinate with other efforts inside and outside of Metro, such as Metro's All-Hazards Mitigation Plan.
2	March 14th Meeting*	3			This feels like framework of how Metro should approach adaptation in general and less like an action plan. Is the first bullet point (about identifying triggers, thresholds, metrics, etc.) going to be addressed in the CAAP or the Resiliency Framework or other documents?	The introduction to section 3.3 and Principle 4 in Chapter 4 will be revised to clarify.
3	March 14th Meeting*	3			Liked the elevator pathway, would like to see more of those.	At this point, we are not planning on adding more examples pathways into the CAAP, but will be developing them during implementation, and can provide additional examples in our annual Sustainability Reporting.
4	March 14th Meeting*	3	41		Table 3.2. Saw this as a "menu" of adaptation actions that are out there, but no recommendations on which ones are good for Metro and which ones Metro is specifically tackling. Is that correct?	All of these actions have been partially implemented or studied. Language throughout section 3.3 are revised to make it clear that adaptation actions are already being implemented at Metro.
5	March 14th Meeting*	3	41		To Table 3.2, add another column that says "type" or "department" explaining where specific actions take place within Metro.	We will add another column to the "Example Adaptation Actions" Table in Chapter 3 that indicates the type of process the measure might fall under: Planning, Design & Engineering; Procurement; Asset Management & Maintenance; Operations; Emergency Management & Disaster Response.
6	March 14th Meeting*	3			Include outreach to adjoining agencies and other stakeholders throughout County/state. When thresholds are exceeded and action needs to occur, Metro will need money, so they should discuss with these outside entities so that money is ready and available when needed.	We will expand upon in Principle 2 within Chapter 4.
7	March 14th Meeting*	3			Absent from risks is drought and how that affects green infrastructure in transportation space. Heat impacts on air quality is also missing.	The limitations of both of those are addressed in Appendix B--Drought is embedded in the extreme heat section. We will add a sentence to the main body under the discussion of extreme heat risks to further emphasize: "In addition, extreme heat can lead to reduced air quality and exacerbate drought effects on green infrastructure." (the section overall will then refer the reader for more information in Appendix B).
8	March 14th Meeting*	3			In assets listed, there's no green infrastructure - there's more "hard" assets that are listed.	We will edit the asset list in Chapter 3 to clarify that this list is imperfect and not comprehensive, and there is room for improvement on data management. Metro's asset management database contains almost 26,000 records of distinct assets, including landscaping. Green infrastructure is embedded in many of these assets as well, including for example almost 80 miles of bioswales and California native or drought tolerant landscaping. Risk analysis is limited to the availability of geospatial data which, does not distinguish the green infrastructure components from hard assets.
9	March 14th Meeting*	Overall			When meeting with other stakeholders, should make the purpose/overview of the report more clear.	The CAAP will be revised to clarify the purpose of the plan, and the executive summary and introduction sections will be edited to provide a better overview of the plan.
10	March 14th Meeting*	1	4		Will we get to see the rest of the bus survey results?	The Survey Results will be provided in a new appendix, Appendix E.
11	March 14th Meeting*	Overall			Interfacing this with SCAG or CTC plans?	Metro ECS D is coordinating closely with Metro Countywide Planning, specifically with Long Range Planning and the Federal/State Policy and Programming business units to ensure that we can leverage opportunities both in the preparation of the SCAG RTP/SCS and any revisions to CTC funding allocations. With SB 526 (Allen) under consideration this legislative session, there is now uncertainty in this process. Metro will adapt our approach to achieve our climate goals.
12	March 14th Meeting*	ES			Are the 8 mitigation measures in here?	The Executive Summary will be revised to clarify.



13	March 14th Meeting*	Overall			Does this plan break out any new initiatives or summarize what's already happening? What's different from existing policy? What is Metro self-initiating with this plan? Where are the new measures?	A column will be added to Table 2-7 that describes Metro's current progress in each area addressed by a mitigation measure. Existing or ongoing commitments, plans, studies, and pilot initiatives will be included here where relevant.
14	March 14th Meeting*	Overall			The battery electric buses have been approved by the Board, so how do we know which of these are new due to the CAAP?	A column will be added to Table 2-7 that describes Metro's current progress in each area addressed by a mitigation measure. Existing or ongoing commitments, plans, studies, and pilot initiatives will be included here where relevant.
15	March 14th Meeting*		2	19	Would these measures be in the future Energy Resources report and be tracked every year to make sure Metro is on track to meet these?	Formal reporting on CAAP initiatives will be included in annual sustainability reports beginning with 2020 Energy and Resource Report (approx. June 2020). Additional information will be added under Principle 4 (monitoring and evaluating) in Chapter 4.
16	March 14th Meeting*	ES			There should be a risk management matrix that says for each risk how it's graded, the mitigation actions, the triggers for engaging that action and what to do when those triggers are reached, etc. Table 3-1 gives the score, but each item should also list a way to mitigate that risk and/or respond to that risk if it becomes a reality. Recommend having the CAAP start out with this table, and then throughout plan go into those in more detail. Could put this in Executive Summary. Connecting actions to risks more can create thresholds that can be followed up on and lay foundations for next actions. Prioritize high risks in the actions.	The Executive Summary will be revised. Related to risk management, we are moving towards a culture of embedding risk in decision-making: information that's needed, metrics we should be tracking to know how to act, etc.
17	March 14th Meeting*		1	3 25-28	Add a Number 3 to the list; sentence most appropriate is on pg. 38: "The CAAP supports this goal by identifying ways the agency can increase its resiliency to climate risks while also aligning with agency goals and priorities set in the Equity Platform Framework, Vision 2028 Strategic Plan and the 2009 Long Range Transportation Plan." Make this a 3rd point or replace it with the 2nd point.	Statement of climate resilience will be refined in Section 3.3 to include this language.
18	March 14th Meeting*		1		CAAP talks about being aligned with local initiatives, but where is the Roadmap Initiative with LA Cleantech Incubator (LACI)?	Metro's committed goal of nearly 80% reduction in agency GHG emissions by 2030 outlined in the current version of the CAAP is consistent and greatly exceeds Metro's contribution to the TEP goal of 25% reduction in LA County transportation-sector GHG emissions and air pollution by 2028.  The CAAP maintains Metro's commitment of a 100% ZEB fleet by 2030, consistent with the "Local transit" sector target in the TEP. CAAP goals for installation of employee commuting charging infrastructure and electrification of non-revenue and vanpool vehicles all contribute to the TEP's People Movement targets.
19	March 14th Meeting*		1		In response to above comment: LACI's Roadmap is not part of statutory mandate of state; LACI might make good recommendations but Metro should not be held accountable to that. Other state mandates do have funding behind them that Metro can be held accountable to.	Metro's committed goal of nearly 80% reduction in agency GHG emissions by 2030 outlined in the current version of the CAAP is consistent and greatly exceeds Metro's contribution to the TEP goal of 25% reduction in LA County transportation-sector GHG emissions and air pollution by 2028.  The CAAP maintains Metro's commitment of a 100% ZEB fleet by 2030, consistent with the "Local transit" sector target in the TEP. CAAP goals for installation of employee commuting charging infrastructure and electrification of non-revenue and vanpool vehicles all contribute to the TEP's People Movement targets.
20	March 14th Meeting*		2	19	In mitigation measures list, add a column saying where we're at right now. This information can help stakeholders. Could have a color-coding approach saying if things are a recommitment, policy, etc.	A column will be added to Table 2-7 that describes Metro's current progress in each area addressed by a mitigation measure. Existing or ongoing commitments, plans, studies, and pilot initiatives will be included here where relevant.
21	March 14th Meeting*	ES			Is this document visionary? Are the measures enough?	This report aligns with the aspirations outlined in Motion 57 and provides a roadmap to address Metro's continuing efforts to reduce its own greenhouse gas emissions. Metro aligns these strategies with those of others that it can influence.
22	March 14th Meeting*	Overall			Would rather see a limited action plan that's implemented and can be held accountable, rather than a bold vision plan with many actions; need to find this balance. It is important to include that this report is visionary, but need to consider the cost.	Executive Summary will be revised to address this. Edits throughout the report will be made to keep consistent message.

23	March 14th Meeting*	ES				Need to incorporate information on the cost of these measures and when cost is important.	We will include a table in the Executive Summary that shows each of the measures, the NPV over the analysis period (2019-2050), and the annual emissions reduced from 2017 levels. We will also include annual emissions reduced from 2017 levels in table 2-11 ( Mitigation Scenario Implementation Costs and Emission Reductions), and rename the columns for clarity.
24	March 14th Meeting*		2	16		Emissions inventory shows the biggest potential is from Metro's ability to decrease VMT. Crosswalk ridership projections with Metro's strategic plan?	We will add a paragraph in Chapter 2 in the Greenhouse Gas Mitigation at Metro "Approach" section to clarify.
25	March 14th Meeting*		2	16		Don't just look at Metro's positive impacts on VMT, but also see if Metro is increasing VMT.	Language in Chapter 2 will be included to identify areas of potential GHG impacts and benefits that are not currently addressed in this CAAP such as upstream emissions from purchased goods, waste disposal, and construction projects.
26	March 14th Meeting*		3	32		Transit-Dependent Vulnerability Map - is there an effort to connect this with equity framework?	Metro's Equity Platform is still being developed. The Equity Focused Communities mapping project is still underway and was not available to include in this CAAP. To clarify the map, we will add the following note: "Note that Metro is also currently in the process of developing its Equity Platform, which will define a common basis for Metro and the community to build an agenda around equity and how to improve it."
27	March 14th Meeting*	ES				Major changes should be made to Exec Summary. Make it about the bold vision of Metro and what we're doing, where we're headed. Bring out the headlines--so they can say, look, here is what Metro is doing. What are the costs to Metro? Make recommendations for specific action to be more ambitious and specific. Make ES more advocacy. Detail measures, next steps, explain that adaptation approach is first time it's being embedded into a public agency in California--i.e. sell the approach.	Executive Summary will be revised accordingly.
28	March 14th Meeting*	ES				In ES, the resilience goals and the next steps are confusing--some are really similar, some are different. Look at them side-by-side, and how mitigation would fit in. Resilience Goal #6 seems similar to 4th implementation principal. Need clearer goal or principle around metrics/thresholds. Need clearer/upfront that establishing metrics is an essential step. Also, consider using language that talks about tying actions to something measurable. Metrics still need to be brought out more--best discussion of need for triggers is buried in case study, but it needs to be prominent.	Executive Summary will be revised so that the discussion of thresholds is made more prominent.
29	March 14th Meeting*	ES				Not clear how we're thinking about engaging with other agencies. What is their role? SCAG, LA, Caltrans, etc.--list them specifically.	Will be listed under Principle 5 in Chapter 4.
30	Roy Thun		3	29	1	General comment the document does a good job of identifying risks based on vulnerability and criticality. However, there is no recognition of the wider societal impacts that are likely to occur within Metro's service area for the same, or related, climatic conditions that would effect Metro. This is very important to consider with respect to criticality of Metro's services in the face of civil unrest, emergency transportation needs and general state of panic. Suggest commenting on this topic in Chapter 3 and 4 with cross reference to Metro's operational integrity plan.	The Plan discusses Metro's critical role in creating a resilient LA, and mentions the All Hazard Mitigation Plan, which will take this broader lensed approach.
31	Yareli Sanchez		1	3	27	Metro needs to approach climate resiliency from a perspective that is less centered on Metro's assets. As a large agency in the Los Angeles region, Metro's action can contribute to regional resiliency as a whole.	Agree that a resilient Metro system is one piece of a larger resilient community. The call-out box (Resilience at Metro and Beyond) in Chapter 1 highlights this point.
32	Yareli Sanchez		1	2	6	In keeping with previous comment, an important next step, once we recognize that Metro can contribute to regional resiliency, is to coordinate with other government entities to amplify efforts, identify cost saving measures, and identify how Metro's assets can be used to respond to climate emergencies (evacuations). This can perhaps be done through a cross-cutting agency committee or workgroup and will require Metro to think regionally instead of a Metro Asset approach. Next step, better coordination with other regional and agency entities.	We will expand upon in Principle 2 described in Chapter 4.
33	Yareli Sanchez		3	39	4	Should recognize that riders are also critical partners in monitoring on the ground conditions and the efficacy of Metro's response/interventions	External communication is a major component of how Metro is planning around risk, and the CAAP includes a critical external communication component as outlined in principle #5 of Chapter 4, which highlights the value of rider input.

34	Yareli Sanchez	3	40	23	Protecting infrastructure does not necessarily have to be done through a hardening approach. Metro needs to recognize the value of both soft (natural), hard, and hybrid approaches and recognize when each is appropriate. Greening a bus station, for example, is a soft and low-cost approach to urban cooling. Add soft/natural infrastructure strategy into pathway approach and recognize in evaluation of a strategy that these are low cost and multi-benefit approaches	The Hardening/Protecting Infrastructure category of adaptation actions in Chapter 3 will be revised to include natural approaches, and we will add examples of natural infrastructure in several other places in the document.
35	Yareli Sanchez	3	40		Recognize that capacity building is also an adaptation action. Providing training, for employees, and resources, for both communities and employees, can ensure communities can respond to climate emergencies. Great you all identified communication with staff and ridership as being key!	Language will be revised so that the "operational" category of adaptation actions in Chapter 3 also includes "behavior modifications." We will discuss training and other modifications as an example.
36	Yareli Sanchez	3	40	23	Need to recognize the value of smart multi-benefit design here as well, not just engineering. Good design and better materials can increase dependability but also feeling of safety, aesthetic value, etc.	Principles #3 and #5 in Chapter 4 will be revised to note benefits of collaboration and co-benefits.
37	April 2nd Letter**				I.1.a. Metro should pledge to go ZERO CARBON for transportation, property assets, etcetera, by [X] date, and announce an upcoming Request for Information for same;	This CAAP includes an aggressive commitment to reducing GHG emissions by 87% from 2017 levels by 2050. While the CAAP does outline an opportunity to reduce emissions to zero through the purchase of carbon offsets, the CAAP does not include carbon offset purchases as a mitigation measure. However, the CAAP will be revised to adopt all 13 mitigation measures analyzed which will increase the GHG emissions reduction targets.  Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).
38	April 2nd Letter**				I.1.b. Metro should plan a pathway to become NET-ZERO for buildings and site-facilities which will include additional on-site distributed generation (DG) such as photo-voltaic system/solar thermal system/ inverter plus battery energy storage and micro-grids, By [X] date Metro should have a clear plan for onsite DG and resiliency measures; by [x] date Metro should have begun plans to install onsite DG and a microgrid at [X] these locations and by [X] date at these locations;	Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).  As part of advancing implementation for GHG strategies outlined in this CAAP, Metro will be developing updates to existing energy management plans that will specifically address opportunities for incorporation of net-zero building technology, distributed generation and microgrids, and renewable energy supply. Metro is also finalizing a Green Procurement Framework to address material and product selection.
39	April 2nd Letter**				I.2. Metro should plan to exceed Cal-Green via modifications/upgrades/retrofits: double glazed windows, low-E; building automation systems; roof and our wall insulations by [X] date;	Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).  As part of advancing implementation for GHG strategies outlined in this CAAP, Metro will be developing updates to existing energy management plans that will specifically address opportunities for incorporation of net-zero building technology, distributed generation and microgrids, and renewable energy supply. Metro is also finalizing a Green Procurement Framework to address material and product selection.  Through the Metro Sustainability Plan Program (as related to construction of all Metro infrastructure), the most recent and most stringent requirements for CALGreen compliance and exceedance are included for Purple Line Extension 3. Metro will monitor how the mandatory and voluntary requirements are being applied and incorporate the lessons learned in the implementation of other projects.

40	April 2nd Letter**				I.3. Metro should convert to zero-emission for the non-contracted bus fleet by 2025, (Date and timeline for accountability);	Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).
41	April 2nd Letter**				I.4. Creating Electrification of Metrolink rails for which LA Metro is the planning agency, which has been broadly discussed... Electrification of rail transportation, for which LA Metro is a transportation planning agency; and electrification of certain lines: It has been previously discussed in terms of the value of introducing electrified rolling stock (such as electric locomotives, electric multiple units, hybrid-electric units, or dual-mode electric units), among lines with higher frequencies of service. The capital investments could provide a platform upon which to implement electrification.	We are coordinating with our partner agencies such as Metrolink to plan for such an initiative.
42	April 2nd Letter**				I.5. Metro should determine and include which best practices to undertake to influence commuter behavior: In other words what should LA Metro / Metrolink's light rail consider in light of the top railways/bus systems in the world? Examples: free fares, cleaner trains and buses, free wifi, seamless fare systems (applications for Android and i-Phone users), timeliness (not having to wait more than 4 minutes in between trains)	Though not explicitly addressed in this CAAP, Metro constantly strives to provide a world-class transportation system that enhances quality of life for all who live, work and play within LA County. As such, the agency has initiatives around many of the items mentioned here. LA Metro is currently piloting Wi-Fi on Metro trains and buses. In addition, Metro is conducting a NextGen Bus Study, the goal of which is to create an attractive and competitive world-class bus system. To achieve this goal, all aspects of Metro bus service are on the table for study, including speed, distance, frequency, time of day, reliability as well as quality of service and safety. Additionally, at the Metro December 2018 Board Meeting, new mobility fees and congestion pricing were studied as part of Item 38. Receive and File of the Twenty-Eight by '28 White Paper. The Agenda item noted that a congestion pricing initiative could position the agency to offer free transit services in time for the 2028 Olympic Games. Metro is also in the early stages of developing a Customer Experience plan and indicators. Metro values timeliness, which is why it was a key component of the Metro Vision 2028 Strategic Plan. Metro is striving to improve wait times on lines like the Purple Line to achieve trains every 4 minutes. Lastly, Office of Extraordinary Innovation has an unsolicited proposal process, for which any new innovative partnership projects can be submitted for review.
43	April 2nd Letter**				II.a. Metro cannot wait 30 years to electrify the contracted bus fleet (BEB Deployment Contracted, as referred to on page 23) given that it has contracting authority for doing same. Metro can and needs to develop a time frame for turn over within 10 years, based on current contract obligations and not extending further contractual relationships with buses other than zero-emission buses.	Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).
44	April 2nd Letter**				II.b. Similarly, Metro cannot wait 30 years to turn over the vanpool assets (Battery Electric Vehicle (BEV) Vanpool Deployment, as referenced on page 23). The useful life of the current vehicles is likely not 30 years, as such there should be a refusal to purchase any new vehicles that are not zero-emission).	Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).
45	April 2nd Letter**				II.c. Any further investment in any fuels that will ultimately be replaced is wasteful of Metro and taxpayer resources. Existing gas infrastructure should be utilized as a redundant or emergency back-up system in the event of a natural disaster prior to Metro adopting needed resiliency technologies such as distributed generation, battery energy storage and microgrids.	Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).
46	April 2nd Letter**				III.a. Three decades to replace existing heating, venting and air conditioning systems (Facility Heating, Venting and Air Conditioning Electrification) and replace appliances (Facility Appliance Electrification) is excessive.	Chapter 4 now includes an Emerging Issues section that identify acceleration strategies, where feasible. This section describes entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).  As part of advancing implementation for GHG strategies outlined in this CAAP, Metro will be developing updates to existing energy management plans that will specifically address opportunities for incorporation of net-zero building technology, distributed generation and microgrids, and renewable energy supply. Metro is also finalizing a Green Procurement Framework to address material and product selection.

47	April 2nd Letter**			<p>III.b. Similarly, Facility LED lighting installation is “low-hanging fruit” and Metro can set a more actionable time frame of completion within 5 years, not a 2030 deadline.</p>	<p>Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).</p> <p>As part of advancing implementation for GHG strategies outlined in this CAAP, Metro will be developing updates to existing energy management plans that will specifically address opportunities for incorporation of net-zero building technology, distributed generation and microgrids, and renewable energy supply.</p>
48	April 2nd Letter**			<p>IV.a. Metro will experience increased demand for electricity through the next 3 decades and the planned amount of distributed generation is insufficient for same. The annual planned amount of installed photovoltaic is insufficient given the needs and a division, by division, or line by line approach should be considered, and possibly a Request for Information issued regarding same.</p>	<p>Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).</p> <p>As part of advancing implementation for GHG strategies outlined in this CAAP, Metro will be developing updates to existing energy management plans that will specifically address opportunities for incorporation of net-zero building technology, distributed generation and microgrids, and renewable energy supply.</p>
49	April 2nd Letter**			<p>IV.b. Metro should be focusing on becoming Net Zero which involves including battery energy storage as part of the planning for zero emission bus line and rail line (infra) electrification.</p>	<p>Chapter 4 will include an Emerging Issues section that will identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).</p> <p>As part of advancing implementation for GHG strategies outlined in this CAAP, Metro will be developing updates to existing energy management plans that will specifically address opportunities for incorporation of net-zero building technology, distributed generation and microgrids, and renewable energy supply.</p>
50	April 2nd Letter**			<p>V.a. Misleading analysis as well in the context of GRID GHG impacts versus Transportation and Building Stock/ Property GHG impacts: This point concerns page 21, Measure ES-2 and the assertion “...greenhouse gas emissions benefits do not fully emerge until California’s electricity grid is less carbon intensive than the renewable natural gas Metro is currently supplying to our CNG fleet, approximately 2031.” There are Grid impacts and there are local air quality impacts in the urban cities that they service, (quieter, cleaner, safer) including no tail pipe emissions. In other words: if the grid is dirty, it’s okay if our buses are dirty, too; we don’t need to clean up our buses(?).</p>	<p>Metro recognizes the air quality benefits of vehicle electrification and as such has committed to a 100% ZEB fleet by 2030 (the full quote reads as follows: "While this transition provides <b>immediate air quality benefits</b>, the greenhouse gas emissions benefits do not fully emerge until California's electricity grid is less carbon intensive than the renewable natural gas Metro is currently supplying to our CNG fleet, approximately 2031.").</p> <p>However, it is important to note that currently projections for greenhouse gas emissions indicate an increase in greenhouse gas emissions if Metro were to continue to rely on grid-supplied electricity while transitioning to ZEB fleets. Despite this, the CAAP recommends transitioning Metro's fleets to ZEB <u>and</u> pursuing lower-carbon sources of electricity to mitigate a potential increase in GHG emissions from electrification. Figure 2-9 (Metro greenhouse gas emissions, by end-use category, all mitigation measures, 2019–2050) in the current CAAP outlines how pursuing lower-carbon sources of electricity can facilitate even greater reductions in GHG emissions.</p> <p>Additional language will be added in this section of Chapter 2 to ensure clarity and avoid any misrepresentations of the analysis.</p>

51	April 2nd Letter**				V.b.A) The supply of what is actual renewable natural gas, is very small; so the idea of running Mero's buses on RNG is troubling;	Metro has contracting authority to provide up to 100% of its bus fuel requirements with RNG and there is no indication that supply is limited. Further, Metro's supply contracts for RNG in no way impact the availability of fuel for its bus fleet, so there is no impact or added risk to bus operations.  Metro's RNG supply program is consistent with the agency's commitment to a ZEB fleet by 2030, with RNG acting as a transitional low-carbon fuel while ZEB implementation ramps up.
52	April 2nd Letter**				V.b.B) As well, tail Pipe Emissions matter: page 21, E-2; This text box negates harmful emissions from near zero or "low NOX" buses. It also fails to discuss the local air quality benefits from zero-emissions that are needed in communities that live in and around our transit corridors that these buses and trains service.	While the scope of the inventory and mitigation analyses is focused on GHG emissions, we will include text that acknowledges air pollution emissions from CNG buses within the Regional Context. Metro is in the process of procuring ZEBs in the fastest way possible. We are in the transition phase, with the goal of ensuring we maintain the level of service using the cleanest fleet and fuel possible and available to us.
53	April 2nd Letter**				V.b.C) Finally, a strategy that involves purchasing credits is not one that benefits Angelenos who live around or ride LA Metro transportation modalities.	In section 2.4 ("Getting to Zero" text box) we examine the potential for carbon offsets, but conclude that currently, though this strategy has been utilized as a viable option by other entities, Metro has chosen to instead focus on reducing emissions by investing in transportation infrastructure. We will provide additional text to further reinforce this point.
54	April 2nd Letter**				VI.a.i. The process for decision-making should include a discussion of the External Benefits Estimator (which includes the societal benefits to the region- including social costs of carbon, as well as job creation aspects, as well as projects that change the transit-rider's experience); as has been used by other transportation planning agencies. As opposed to just cost (implementation and otherwise) and feasibility as primary decision makers. Readers will want to understand the societal/environmental benefits inherent in some projects, while still others may want to better understand the costs and financial feasibility; all of which are important.	The current cost analyses are aimed at helping Metro understand the impact on Metro's bottom line and to provide a point of comparison between measures. Both readers and decision-makers should be informed about the marginal cost-abatement potentials for each measure. In a financial resource-constrained environment, the most cost-effective GHG mitigation measures may be prioritized over those that are not as cost-effective. Regardless, the CAAP will be revised to adopt all 13 mitigation measures analyzed which will increase the GHG emissions reduction targets.  Additionally, Metro is exploring tools that integrate external benefits into decision making, such as the Triple-Bottom-Line tool being piloted for the Emergency Security Operations Center (ESOC) project. The goal is to conduct these assessments at the project-level.
55	April 2nd Letter**				VI.a.ii. Metro-Directed Control should not be as heavy of an analysis point. There are few areas for which Metro cannot exert influence with respect to sustainability. This is, if it determines to implement sustainability not via a business-as-usual approach. For example, because Metro enters into contracts for some of the buses it utilizes, it can exert control vis-à-vis the contracting process; similarly, the Battery Electric Vanpool deployment is also something within Metro direct control. Metro can make a determination as to which types of vehicles for which it will provide rebates and incentives. Additionally, Metro likely has domain over where it provides parking for its employees and can implement measures to incentivize employees to ride share or alternatively provide more vehicle chargers. The concept of direct control versus another kind of control is a means to delay sustainability planning.	Analyzing how and where Metro's influence can change outcomes is a critical part of determining feasibility and ultimately implementing the GHG measures outline in this CAAP. Taking the various Metro fleets as an example, there are different ownership models that need to be taken into account when determining how to implement the electrification strategy. Additional language will be included in the revised CAAP to clarify "direct control" and how this analysis was used to inform implementation timelines.  Additionally, as of April 2019, Metro is in the process of developing a Green Procurement Framework, the goal of which is to exert influence in the contracting process as evidenced by the best practices cited in the Framework. The next phase of that initiative will explore additional ways beyond those best practices that Metro can influence the contracting community.
56	April 2nd Letter**				VII. Since Metro owns and controls a significant amount of property throughout the Los Angeles region, including buildings, parking lots, maintenance yards, and transit stops, the opportunity is ripe to enhance regional resilience by recognizing the multiple benefits of green infrastructure projects and prioritizing the implementation of these projects within the Climate Action and Adaptation Plan...Metro should recognize the opportunities associated with the Safe Clean Water program and all the momentum being built around green infrastructure as a tool to combat climate change and highlight and implement these strategies as part of its CAAP.	Metro values the multi-benefits of green infrastructure, and has been proactively incorporating such principles and strategies in all Metro infrastructure projects beginning with the Metro Orange Line. We realize that green infrastructure was inadequately emphasized in the CAAP. We will add several references to green infrastructure and its benefits in the CAAP.

57	April 2nd Letter**				<p>VIII. MAINTAINING CONSISTENCY WITH LOCAL INITIATIVES IN WHICH METRO IS A PARTNER: LA Metro is a partner in Los Angeles Clean Tech Incubator's Transportation Electrification Pathway (TEP) and has been involved in developing the TEP from the inception. LA Metro's CAAP is inconsistent with these goals, which is concerning given that LA Metro helped develop these goals and yet, is now planning far less than what is an appropriate amount given the anticipated needs, as well as the GHG gains that can be achieved by encouraging LA Metro employees to switch to a zero-emission car or a hybrid.</p>	<p>Metro's committed goal of nearly 80% reduction in agency GHG emissions by 2030 outlined in the current version of the CAAP is consistent and greatly exceeds Metro's contribution to the TEP goal of 25% reduction in LA County transportation-sector GHG emissions and air pollution by 2028.</p> <p>The CAAP maintains Metro's commitment of a 100% ZEB fleet by 2030, consistent with the "Local transit" sector target in the TEP. CAAP goals for installation of employee commuting charging infrastructure and electrification of non-revenue and vanpool vehicles all contribute to the TEP's People Movement targets.</p>
58	April 2nd Letter**				<p>IX. CAAP STAKEHOLDER ENGAGEMENT: Opportunities for engagement regarding CAAP are lacking in LAMSC meetings. The LAMSC is a volunteer council, comprised of professionals employed by entities other than LA Metro, which means that volunteers need to have the opportunity to deal with the substance of the CAAP at the meetings. The process does not facilitate meaningful input by allowing explanation at the council meetings itself as well as tracking input from prior workshops to determine incorporation or lack thereof for different reasons. Our perception is that the majority of the feedback provided to the Metro team at the initial CAAP workshops has not been incorporated into the current draft, and we are left not understanding why. Our hypothesis is that an expedited project timeframe has made the team unable to adequately respond to feedback provided over the past few months. Considering that the CAAP only gets updated once every five years, this rushed approach does not give due importance to one of, if not the most pressing issue of our time.</p>	<p>The engagement strategy for the CAAP has been developed with guidance and concurrence from the LAMSC executive committee and consistent with the LAMSC Meetings ARC. However, as a result of meaningful feedback from the LAMSC, Metro augmented its engagement strategy to include additional touchpoints and add review time to the CAAP draft, which lengthened the overall project timeframe. Finally, the project timeframe is one that was committed to as part of the commitment to the Metro Board, specifically to the current Board Chair.</p> <p>Staff have provided regular reporting to the LAMSC on CAAP progress including two workshops that were designed specifically for LAMSC input. Following both workshops, staff presented to the LAMSC on how stakeholder input has been incorporated into the CAAP. A comprehensive comment review matrix has been developed to facilitate for stakeholder tracking of input received.</p> <p>This CAAP is designed to be updated as needed according to new information, to new technologies, or to new relevant statutes/regulations. A formal revisit of the whole CAAP is going to be done every five years.</p>
59	April 2nd Letter**				<p>X. GOVERNANCE ISSUES: In order to rise to the challenges of climate change, Metro needs leadership at the executive level to ensure that planning, construction and operations are all in alignment with CAAP objectives. We have been advocating for the creation of a Chief Sustainability Officer position at Metro, and we continue to do so with this letter as well. Per Motion 57, Metro has committed to utilizing a project-specific sustainability coordinator to guide and monitor all future highway and transit projects and report to a Sustainability Officer; however, such actions still lack the direction of quantifiable targets and metrics, are piecemeal in nature and do not signal a meaningful endeavor by the agency. Given the climate and sustainability goals inherent in Motion 57, this undertaking needs a Chief Sustainability Officer and coordinating staff to not only lead these initiatives, but follow through to execute the implementation. Currently, it appears environmental and sustainable efforts occur as sporadic pilot projects and vary widely among the different departments within Metro. ECSD has done much of this work, but there is a long ways to go yet in terms of institutionalizing these goals, which calls for additional leadership, a CSO, and team to effectuate these efforts.</p>	<p>Metro staff are delivering on the current CAAP strategies using existing resources and are expected to do so moving forward. This comment is going to be carried forward to address the implementation of Metro's overall sustainability and environmental program, including the CAAP.</p>
60	April 2nd Letter**				<p>XI. BARRIERS: Further discussion of the CAAP can and should mention any significant constraints to implementation, such as State of Good Repair issues, maintenance issues, operations issues and budgetary issues. Rather than just sticking with the low-hanging fruits, this CAAP should be an opportunity to identify higher-ambition areas of opportunity. Such information would provide necessary talking points to understand how to provide support to Metro adopting and implementing bold climate and sustainability goals.</p>	<p>Chapter 4 will include an Emerging Issues section that identify acceleration strategies, where feasible. This section will describe entry points where these aspirations fit within the work Metro is undertaking, potential barriers to accelerated implementation, and how the annual review of progress on CAAP initiatives will be used to adjust targets and goals with new information (technology, lessons learned, policies, etc.).</p>

\*March 14th meeting attended by: Jennifer J. Kropke, Esq., Bryn Lindblad, Michael Kadish, Wendy Nystrom, Patty Menjivar, Lorena Palacios, and Mark Kempton.

\*\*April 2nd Letter submitted by: Jennifer J. Kropke, Esq., Bryn Lindblad, John Harriel, Jr., Will Wright, Hon., Big John Cares, Bruce Reznik, Caryn Mandelbaum, Michael Kadish, Joel Levin, and Yareli Sanchez.



# Metro Climate Action and Adaptation Plan (CAAP)

## Resiliency Indicator Framework Update– Sustainability Council



**Metro**<sup>®</sup>

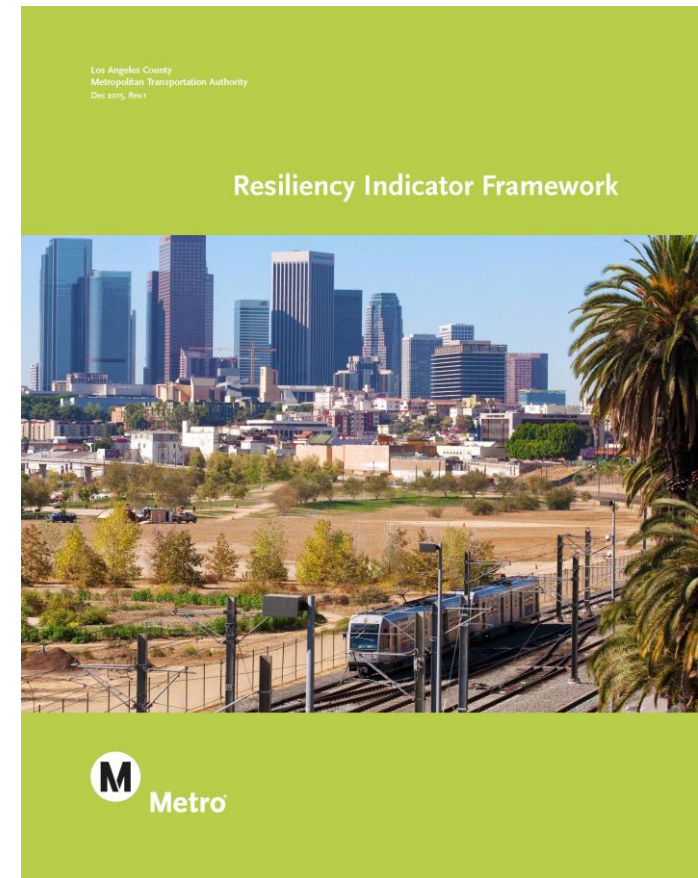
April 12, 2019



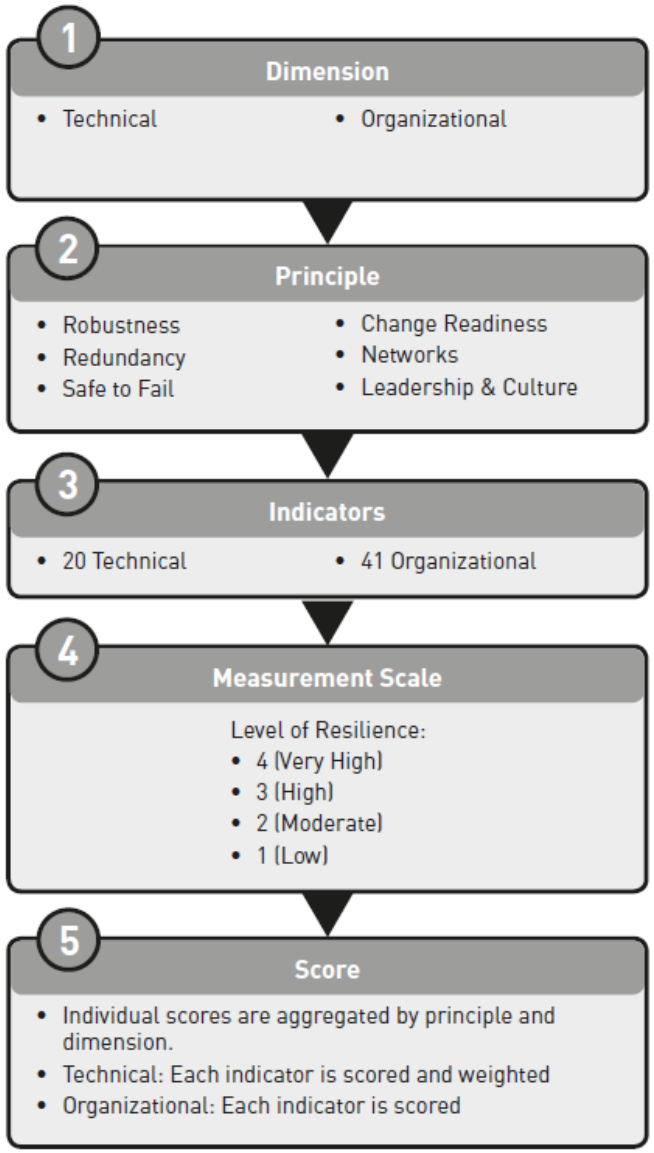
# Framework Introduction

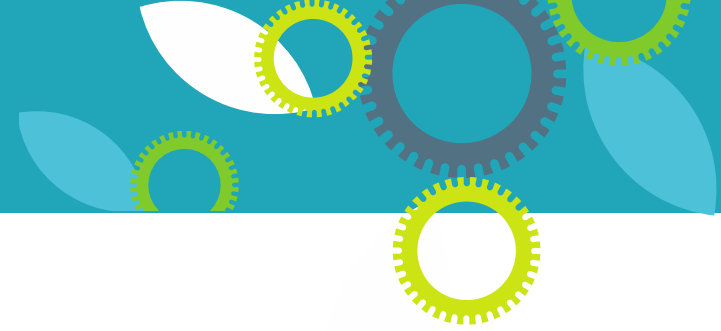
- **Purpose**

- Increase resiliency throughout the Metro system
- Identify areas that need improvement in order to make Metro more resilient
- Mainstream resiliency into Metro processes, e.g. in State of Good Repair Asset Management Database
- Encourage cross-departmental collaboration to identify opportunities for improvement
- Spur action within the agency



# Framework Overview (2015)





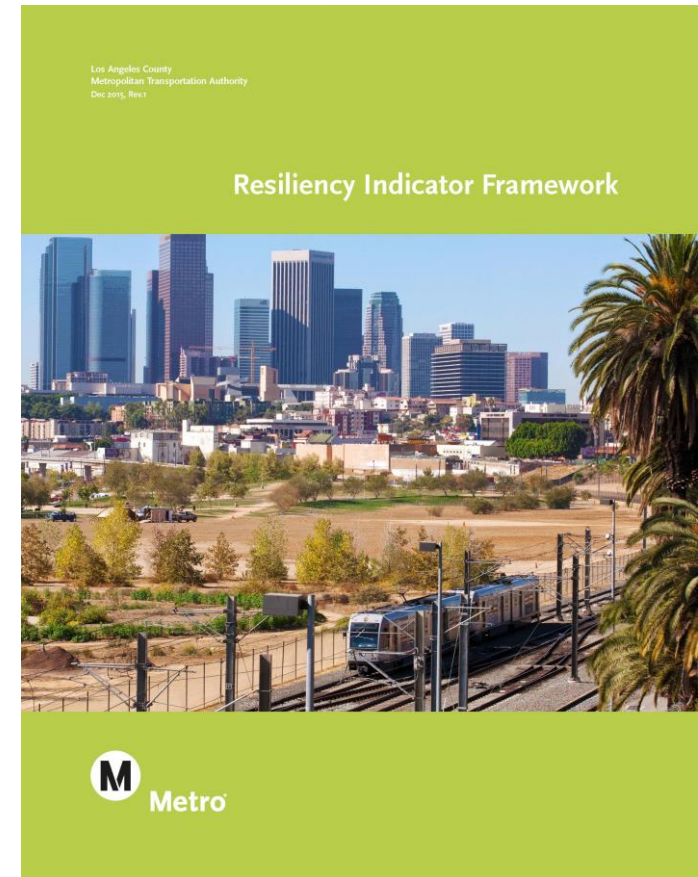
# Framework Tool (2015)

2: Organizational Resilience		Project Title:	Completed by:	Date:	Description:	
		Title	First and Last Name	Date	Project description	
Indicator	Measurement Scale	Lead Department / Source of Information	Score <i>1 = Least Resilient 4 = Most resilient</i>	Indicator Weighting	Category Weighting	Assessment Notes/ Score Justification
<b>INFORMATION MANAGEMENT AND COMMUNICATION</b>						
<b>I-1. Warnings &amp; Public Awareness</b> Ability to reach passengers across multiple communication channels. Means to warn travelers of problems and let them know transportation options.	4 – Information is continuously updated live across all communication channels 3 - Information is updated across all communication channels within 1-hr. of an event 2 - Information is updated across all communication channels when feasible 1- Information updated through limited communication channels	Communications, Bus Operations Control (BOC), Rail Operations Control (ROC), Transit Police				
<b>I-2. Communication Systems - Staff</b> Existence and reliability of multiple, independent communication channels for transportation staff and managers (under extreme conditions)	4 – Systems exist and have back up and have been tested with staff annually. 3 – Systems exist and have back up, but are not tested with staff annually 2 - Some gaps in system, untested 1 – Large gaps in system	Labor/Employee Relations BOC, ROC, SCADA Wayside Systems, Transit Police				
<b>I-3. External - Public Awareness</b> Exposure of public to education and awareness materials/messaging on what to expect during an extreme weather event.	4 – Systematic, structured campaign exists 3 – Some structure, not systematic 2 - Infrequent ad hoc campaign 1 – No campaign	Communications, Marketing				
<b>I-4. Sensors</b> Use of remote sensors/crowd-sourced information to provide current information on asset state, hazards and impacts.	4 - Documented methodology and established information platform 3 - Partial documentation and platform development 2 - Not documented but some knowledge of potential process 1 - No knowledge of or development of methodology	Information Technology				

Page 1

# Framework Update

- **December 2015 Framework**
  - Discusses 20 Technical and 41 Organizational indicators of resiliency
- **September 2018 Update of Organizational Indicators**
  - Streamlined, resulting in 34 indicators in 5 categories
  - Recognized the value of expanding for all hazards
- **Modifications since September 2018:**
  - Drafted changes to indicators to cover all hazards (natural and human-induced)
  - Added two new indicators related to essential commodities and critical supply chain
  - Conducted an earthquake case study



# Staff Engagement #2

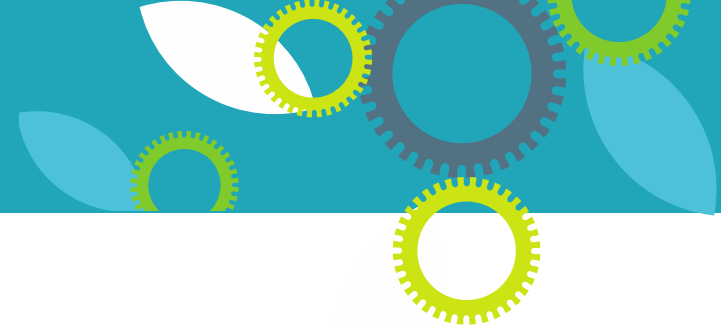
- Workshop February 28, 2019
- In-depth discussion to review tool and test it with an earthquake case study
- Participants included:
  - Emergency Management
  - Safety
  - Asset Management
  - ITS
  - Program Management
  - Operations & Maintenance





# Recommended Changes to Framework

- Streamlined from 41 to 34 indicators
- Expanded from 3 to 5 more balanced categories
  - Each category has roughly the same number of indicators; previously, one category held 70% of the indicators
- Expanded from climate hazards to all hazards
- Added and refined indicators after two workshops of Metro staff input



# Case Study Overview

- **Case Study Activity:** What if the Northridge earthquake were to happen in the near future? Is Metro's current system resilient against this event?
- **Key Takeaways**
  - Resiliency is not just Emergency Management but also includes Planning, Preparedness and Response
  - Need to enable a culture of building resilience across the agency
  - Incorporate Operations into indicators

Group	Average Score (out of 4)
Information Management & Communication	2.2
All Hazards Planning, Preparedness and Response	2.6
Financial Preparedness	2.5
Networks & Staffing	3.4
Leadership & Culture	2.6

# Organizational Indicators: 2015 vs. 2019

2015		
Principle	Category	Indicator
Change Readiness	Communications and Warning	C-1. Warnings – General Public
		C-2. Communication Systems - Staff
		C-3. External - Public Awareness
	Information and Technology	C-4. Sensors
		C-5. Current Weather Data
		C-6. Backup
	Insurance	C-7. Coverage
		C-8. Information
	Internal Resources	C-9. Roles & Responsibilities – Key People Identified
		C-10. Roles & Responsibilities – Succession Planning
		C-11. Internal Coordination – Event Response
		C-12. Remote Response Ability
		C-13. Staffing Response Roles
		C-14. Sufficient Staffing
	Planning Strategies	C-15. Risk Assessment and Scenario Planning
		C-16. Emergency Management Plans - Existence
		C-17. Tracking Climate-Related Injuries
		C-18. Joint Planning
		C-19. Priority Routes/Structures to Manage First
		C-20. Lessons Learned and Thinking Ahead
	Drills and Response Exercises	C-21. Training/Drills - Curriculum
		C-22. Training/Drills - Offered
		C-23. Training/Drills - Completed
		C-24. Training/Drills Practice - Testing and Public Engagement
	Funding	C-25. Capital Availability
		C-26. Operational Funding for Resilience Initiatives
		C-27. Integration with Resilience
		C-28. Contingency Funding
		C-29. Modeling
Networks	Breaking Siloes	N-1. Internal Relationships
		N-2. Information Sharing - Internal
	Effective Partnerships (external)	N-3. Interagency Compatibility
		N-4. Business Continuity/Awareness
		N-5. Information Sharing - External
		N-6. Interagency Compatibility and Cooperation
Leadership & Culture	Leadership	L-1. Roles and Responsibilities
		L-2. Staff Engagement
		L-3. Leveraging Knowledge
	Decision Making Authority	L-4. Crisis Decision Making
		L-5. Advance Agreements
	Innovation and Creativity	L-6. Approach to Projects

2019	
Principle	Indicator
Information Management and Communication	I-1. Warnings & Public Awareness
	I-2. Communication Systems - Staff
	I-3. External - Public Awareness
	I-4. Sensors
	I-5. Data - Access to, and Maintenance of, Key Data Sets, Including Weather Data, GIS Data, Asset Mgt Databases, Access to other Relevant External Databases
	I-6. Information Security and Contingency Planning
All Hazards Planning, Preparedness and Response	E-1. Risk Assessment and Scenario Planning
	E-2. Tracking Incident-Related Injuries
	E-3. Tracking Essential Commodities and Resources
	E-4. Priority Routes/Structures to Manage First
	E-5. Emergency Management Plans – Existence
	E-6. Joint Planning
	E-7. Training/Drills – Offered
	E-8. Training/Drills/Tests – Completed
	E-9. Lessons Learned and Thinking Ahead
	E-10. Critical Energy and Supply Chain Provision
Financial Preparedness	F-1. Insurance Coverage
	F-2. Insurance Information
	F-3. Capital Availability for Resilience Integration
	F-4. Operational Funding for Resilience Integration
	F-5. Contingency Funding
	F-6. Modelling
Networks & Staffing	N-1. Internal Relationships
	N-2. Information Sharing - Internal
	N-3. Interagency Compatibility
	N-4. Business Continuity/Awareness
	N-5. External Information Sharing & Interagency Cooperation
	N-6. Roles & Responsibilities - Key Positions, Roles, and Staffing Plans Identified
	N-7. Remote Response Ability
Leadership & Culture	L-1. All Hazards (Natural and Human-Induced) Are a Clear Priority of Metro Leadership
	L-2. Roles, Responsibilities, and Goals
	L-3. Staff Engagement & Leveraging Knowledge
	L-4. Crisis Decision Making
	L-5. Mid/Long Term Decision Making
	L-6. Advance Agreements
	L-7. Approach to Projects & Integration with Resilience



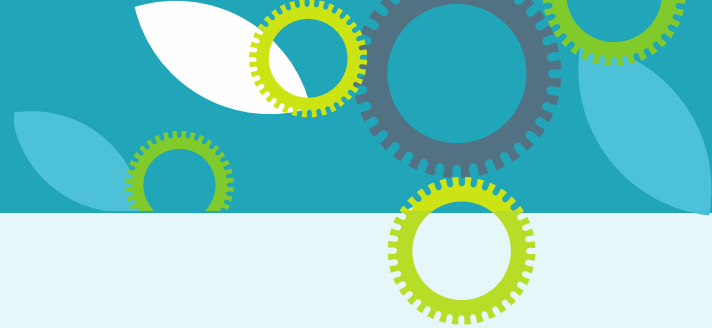


# White Paper Outline

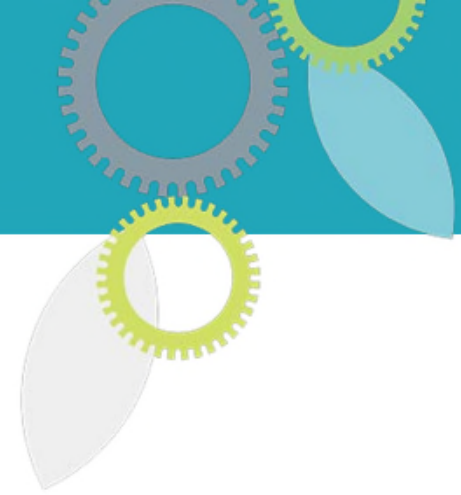
- **Introduction to the Framework**
  - What is the Framework?
  - What is the Purpose of the Framework?
- **Updating the Framework**
  - Overview of 2015 Framework
  - 2019 Update
- **Planned Changes to the Framework**
- **Earthquake Case Study**
  - Approach for Case Study
  - Results of Case Study Exercise
- **Next Steps**

# Next Steps

Date	Milestone
<b>April 2019</b>	<b>Present status to Sustainability Council</b>
April 2019	Draft White Paper
Summer 2019	Provide Metro Board with findings of White Paper and Next Steps for a Policy



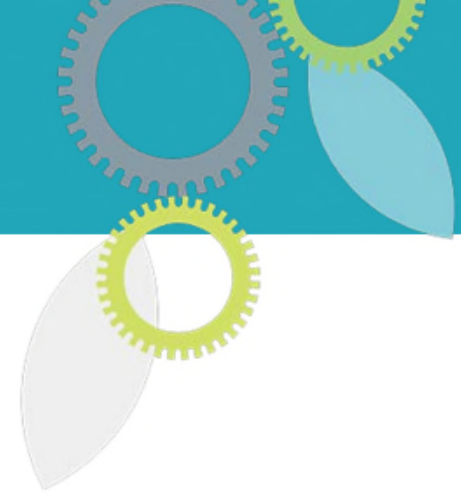
Thank you!  
Questions?



# Metro's Sustainable Acquisition Program Framework

April 12, 2019

*Building a Greener Transportation Solution!*



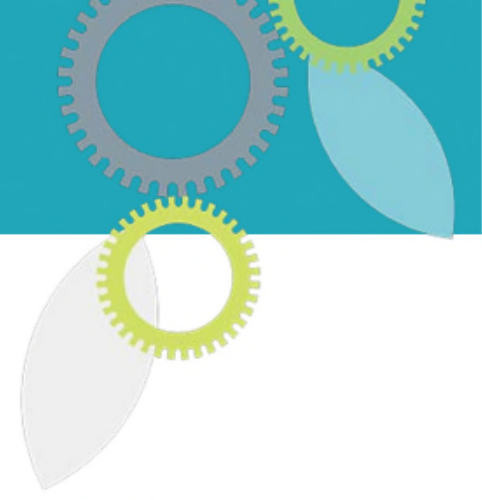
# Work Plan

## PHASE 1 | PROGRAM DEVELOPMENT

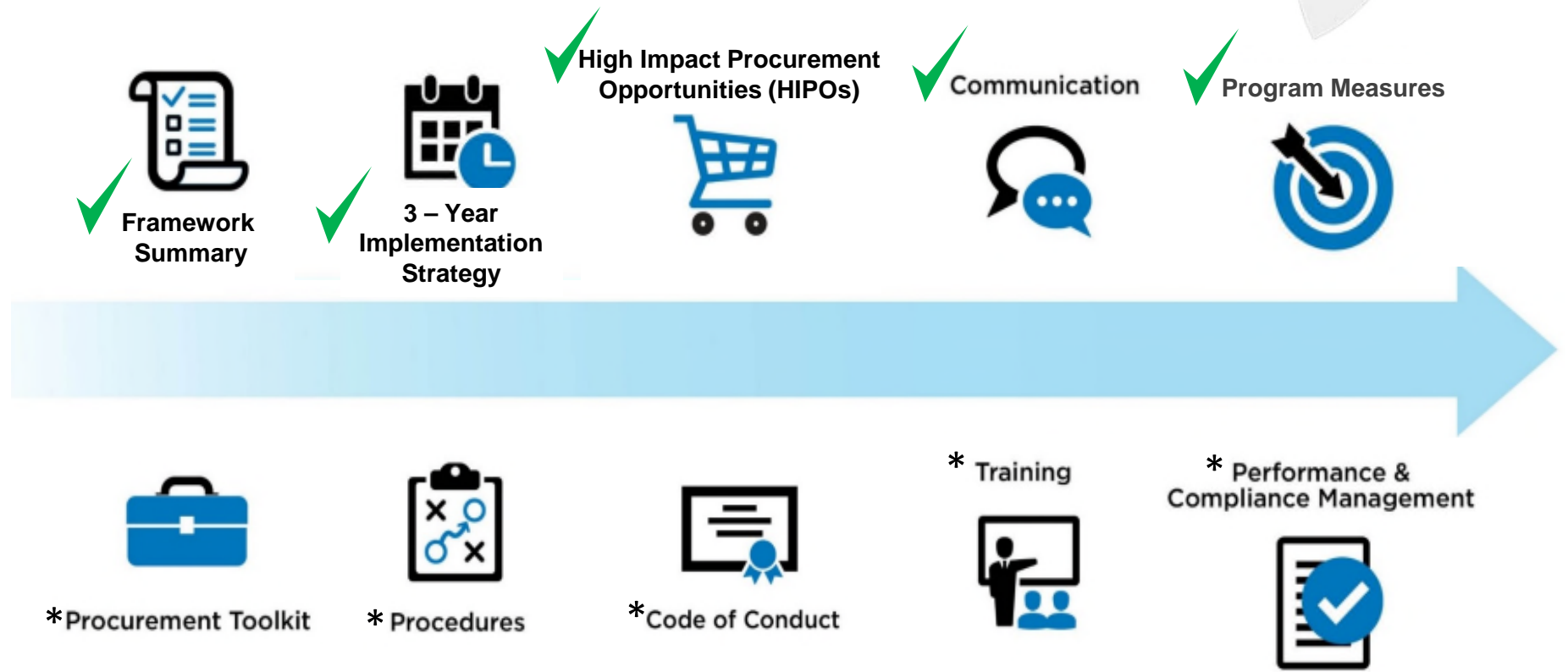
- ✓ **Baseline Assessment of Procurement Processes**
  - Assess current Policies, Specifications, Committees, and Programs
  - Analyze product categories and develop work flow processes
  - Conduct interviews with end-users and client departments
- ✓ **Development of Sustainable Acquisition Program Framework:**
  - Agency-wide Program under the Environmental Policy
  - Green Procurement Framework (structure)
  - Apply industry standards

## PHASE 2 | IMPLEMENTATION *(Post Board Approval of Policy)*

Develop and implement agency-wide initiatives for product category specific purchasing, vendor services contracts and capital construction.

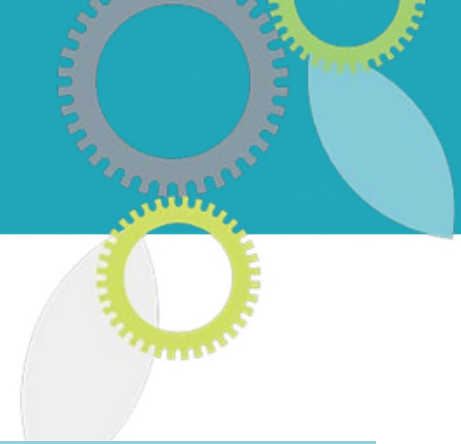


# Framework and Project Outcomes



**Phase 1:** Framework includes ALL Areas

**Phase 2:** \* Indicates areas to be implemented in Phase 2

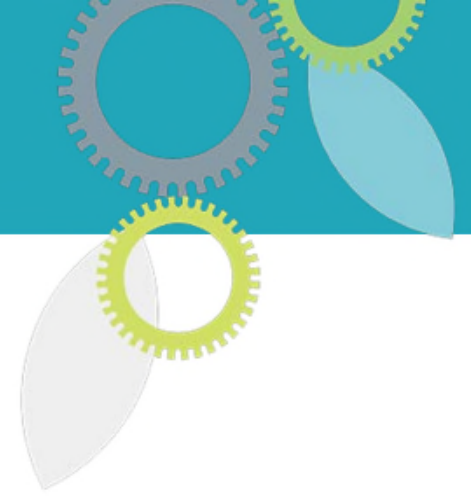


# Schedule of Activities

Target Date	Milestone
10/15/18	✓ Phase 1 Project Kick-Off Meeting
11/9/18	✓ Sustainability Council Meeting introduction to Green Procurement
12/14/18	✓ Complete Baseline Assessment and develop draft policy
1/11/19	✓ Present Draft Policy to Sustainability Council
3/8/19	✓ Consensus Comments received from the Sustainability Council
<b>4/12/19</b>	<b>Final Program Framework Update to Sustainability Council</b>
5/15/19	Submit documents for the Metro Board approval cycle
June 2019	Board Approves Sustainable Acquisition Program
Beyond	<i>(Pending Board Approval)</i> Phase 2 Kickoff: Implementation, Roll-Out Schedule, and Training Program.



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**Thank You!**





OurCounty

# Countywide Sustainability Plan

April 12, 2019 | Metro Sustainability Council

# Background

# The County's Aims & Roles

## The plan should be:

- Aspirational, Comprehensive, Long-Term, Regional, Actionable
- **Plan is analogous to a strategic plan**
  - Sets out a vision and strategy, but does not include a detailed financial assessment.
- **Plan mostly addresses areas of County's control**
  - Does include some areas where we can influence others (Metro, South Coast AQMD, etc.)



# Countywide Sustainability Plan Topics

- Water
- Energy
- Climate
- Air Quality
- Land Use and Transportation
- Open Space, Recreation and Habitat/Biodiversity
- Resource Recovery and Waste Management
- Public Health and Well-Being
- Economy and Workforce Development
- Housing

**Equity &  
Resilience  
woven  
throughout**

Alignment  
with LA City  
Sustainability  
Plan refresh  
where  
appropriate



# Public Engagement



- More than 150 meetings and presentations to business groups, community and nonprofit organizations, cities and other public entities, academics, etc.
- 11 half-day+ workshops attended by 600 people from 350 organizations.
- Cities Summit to discuss regional coordination and collaboration.
- Generated 6,000 recommendations which were turned into 500 specific actions.
- Discussion Draft further refined content to 150 actions.



What's in the plan?

# High Level Goals



-  Resilient and healthy community environments where residents thrive in place
-  Buildings and infrastructure that support human health and resilience
-  Equitable and sustainable land use and development without displacement
-  A prosperous L.A. County that provides opportunities for all residents and businesses and supports the transition to clean economy sectors
-  Thriving ecosystems, habitats, and biodiversity
-  Accessible parks, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities

# High Level Goals



A fossil fuel-free L.A. County



A convenient, safe, clean, and affordable transportation system that expands mobility while reducing car dependency



Sustainable production and consumption of resources



A sustainable and just food system that enhances access to affordable, local, and healthy food



Inclusive, transparent, and accountable governance that supports participation in sustainability efforts, especially by disempowered communities



A commitment to realize Our County sustainability goals through creative, equitable, and coordinated funding and partnerships



# Goals, Strategies, and Actions



**High Level Goals:** Broad statements of a desired future state

- A convenient, safe, clean, and affordable transportation ecosystem that expands mobility while reducing car dependency.
- A fossil fuel-free LA county.

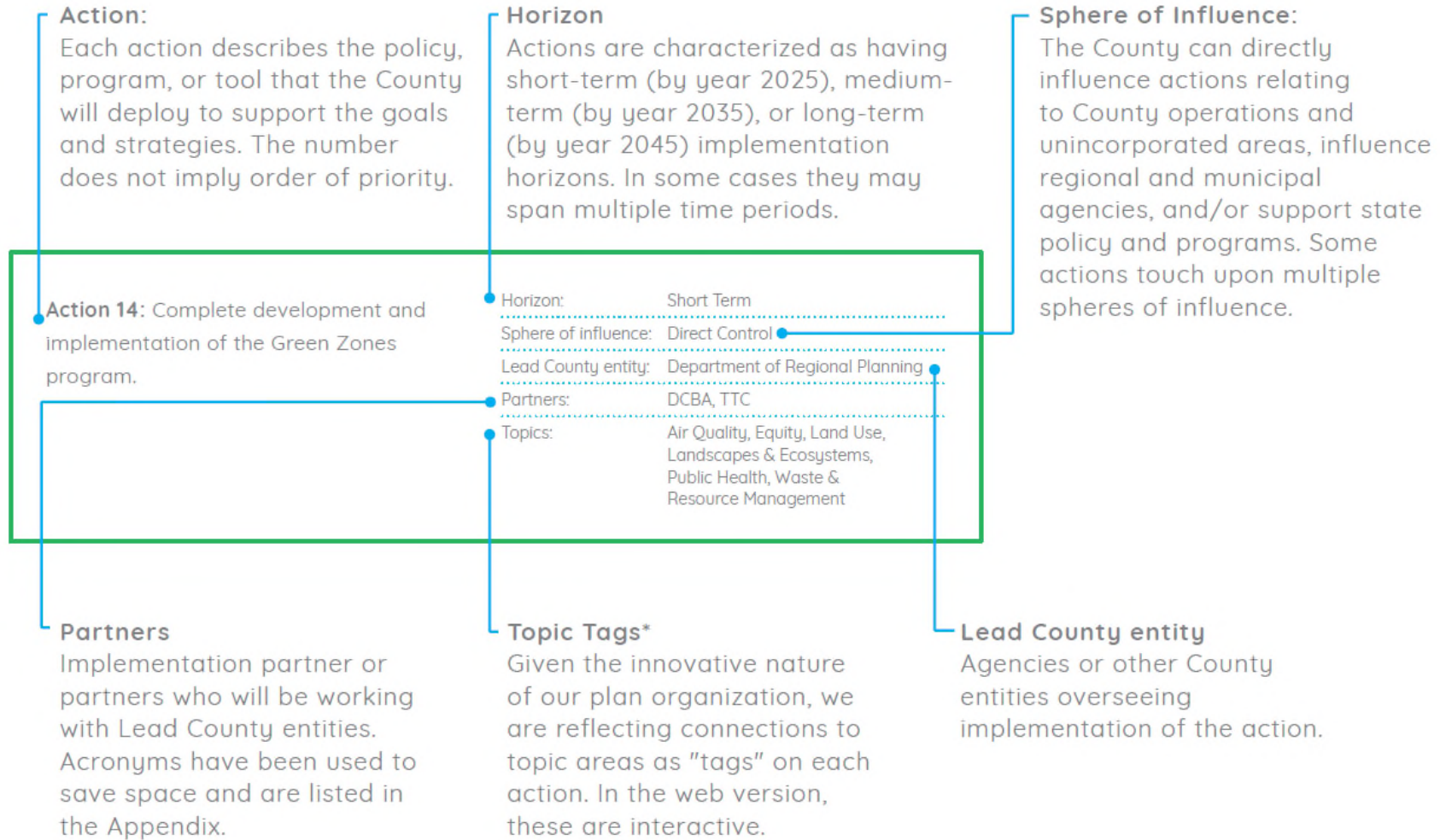
**Strategies:** More specific statement on how to achieve the goals

- Improve transportation health and safety outcomes.
- Create a zero-emission transportation system.

**Actions:** Detailed statements on policy or program to fulfill the strategy

- Implement Vision Zero Action Plan within unincorporated areas and work with local jurisdictions to implement traffic safety interventions that reduce traffic injuries and deaths.
- Revise and regularly update the County's fleet policy to require zero-emission vehicles whenever possible.

# What's in an action?



# Targets



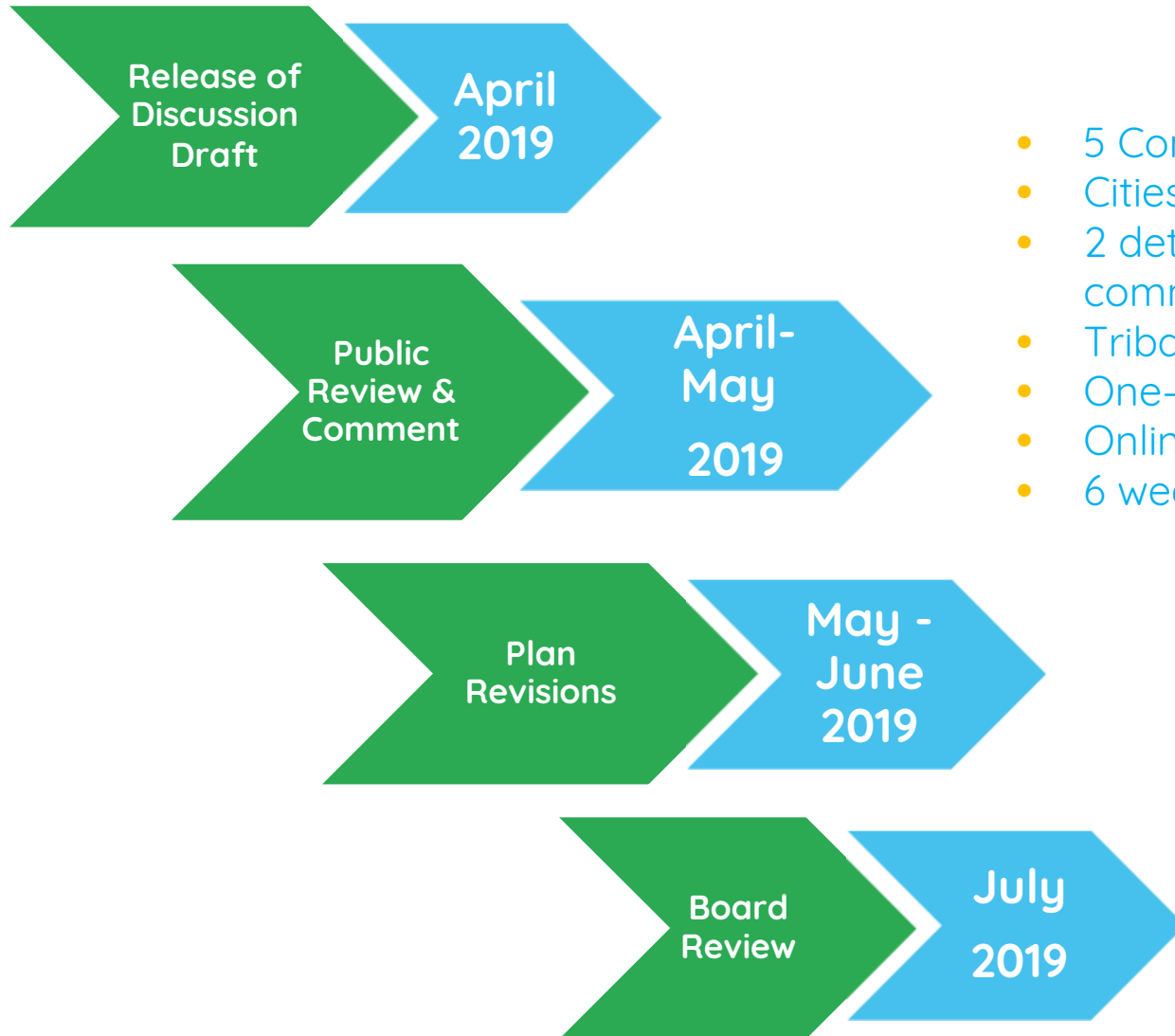
- Numeric targets tied to strategies set for short term (2025), medium term (2035), and long term (2045) unless end point is achieved earlier.
- Targets are set countywide as well as for unincorporated areas and/or county facilities and operations as appropriate.

## EXAMPLES:

2025	2035	2045
UNINCORPORATED: ---	UNINCORPORATED: Decrease pedestrian and bicycle deaths and severe injuries by 100%	UNINCORPORATED: Maintain zero pedestrian and bicycle deaths and severe injuries
COUNTYWIDE: ---	COUNTYWIDE: Decrease pedestrian and bicycle deaths and severe injuries by 100%	COUNTYWIDE: Maintain zero pedestrian and bicycle deaths and severe injuries
COUNTY OPERATIONS: 8,000 EV charging stations at County facilities	COUNTY OPERATIONS: 15,000 EV charging stations at County facilities	COUNTY OPERATIONS: ---
COUNTYWIDE: 60,000 new public EV charging stations (2018 baseline)	COUNTYWIDE: 130,000 new public EV charging stations	COUNTYWIDE: ---

# Timeline

# Discussion Draft Public Review



- 5 Community Fairs (Saturdays in April & May)
- Cities Summit - May 14
- 2 detailed Review Sessions with previous commenters
- Tribal nations meeting - TBA
- One-on-one meetings with key stakeholders
- Online at [OurCountyLA.org](http://OurCountyLA.org)
- 6 week comment period



[OurCountyLA.org](https://www.OurCountyLA.org)

### Action Items Log

Meeting Date:	Status	Council Member	Comment	Metro Response
8-Mar-19	Closed	Jennifer Kropke	Would like to see a list of not just available funding opportunities, but specifically those for which Metro has already applied and with what success.	A table of funding opportunities was provided to the Council at the April meeting.
8-Feb-19	Open	Joel Levin/Hilda Blanco	Request to determine the best avenue to provide input on congestion pricing.	IN PROGRESS: Congestion pricing is a transportation demand management strategy that has been presented to the Board for consideration. Any engagement is subsequent to a Board decision to initiate a congestion pricing feasibility study and will comport with the timeline of that study.
11-Jan-19	Closed	Bruce Reznik	Request to include main comments discussed for all presentations to the meeting minutes.	DONE: Moving forward, staff will provide feedback on previous main points discussed prior to all future presentations.
14-Dec-18	Closed	Belinda Faustinos	Request to look further into partnering with other organizations to see if its feasible to provide stipends to NGO's.	DONE: Metro does not provide compensation to Council members, but would be glad to provide information.
14-Dec-18	Closed	Bruce Reznik	Request to move the Receive and File Update of Motion 57 to the Metro Board to provide sufficient time for discussion on Motion 57 Progress Update.	DONE: Receive and File Update of Motion 57 to the Metro Board has been moved to the 4/12/19 SC meeting as reflected on the ARC.
14-Dec-18	Closed	Bruce Reznik	Request to provide a list of vacant seats that did not receive nominations.	DONE: The Council's membership list provided on 1/3/19 was updated to reflect current vacant seats.
12-Oct-18	Closed	Caryn Mandelbaum/Bruce Reznik/Belinda Faustinos	The EJ seats remain vacant. To receive better participation from the EJ group, can we explore possiblity on partication stipends.	DONE: Metro does not provide stipends to Council members but now that we have received two applications for the EJ vacancies, we have full primary participation in all categories from NGO's.
12-Oct-18	Open	Belinda Faustinos	Update on the RAMP/RCIS plan	IN PROGRESS: Working to schedule a meeting with Caltrans to discuss a collaborative effort on the RAMP.
12-Oct-18	Closed	Michael Samulon	Encourages Metro to include an annual benchmarking against the updated path to reach numbers on the CAAP	DONE: GHG benchmarking and climate action updates are included in annual Energy & Resource Report
12-Oct-18	Closed	Joel Levin	Incorporation of LA Metro EV Implementation Plan on Meetings ARC	DONE: Has been added to the ARC for the 12/14/18 meeting.
12-Oct-18	Closed	Hilda Blanco	Thoughts on publishing the CAAP	DONE: Once CAAP is approved, it will be posted on Metro's website.

<b>Meeting Date:</b>	<b>Status</b>	<b>Council Member</b>	<b>Comment</b>	<b>Metro Response</b>
<b>12-Oct-18</b>	Closed	Caryn Mandelbaum	Request of a timeframe on Motion 57 updates	DONE: Motion 57 Progress Update is scheduled for the 3/8/19 meeting. We will provide monthly informal updates.
<b>12-Oct-18</b>	Closed	Michael Samulon	Request to provide an LRTP Toolkit	DONE: Was sent to council members on 10/24/18.
<b>12-Oct-18</b>	Closed	Bruce Reznik	Request to provide Paul Backstrom's notes on LRTP Update	DONE: Notes attached to the Meeting Minutes for 10/12/18.
<b>21-Sep-18</b>	Closed	Bryn Lindblad	Request of a Meetings ARC	DONE: Provided Meetings Arc at the 10/12/18 meeting.



# Funding Opportunities for Zero-Emission Buses and Infrastructure

PROGRAM	AGENCY	ELIGIBLE PROJECTS	PROCESS	DISTRIBUTION	FUNDING AVAILABILITY	DEADLINE
Federal Transit Administration (FTA) Low or No Emission Vehicle Program	FTA	Funding for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, leasing and/or rehabilitation of required supporting facilities	Competitive	Annual appropriation	\$85 million* (M) nationwide for FY 2018-19  <i>*Per FTA guidelines, in FY 17-18 no State received more than five percent of the total available funding and no single project received more than 2.7 percent of the total available funding</i>	5/14/2019
Carl Moyer Program	California Air Resource Board (CARB) + South Coast Air Quality Management District (SCAQMD)	Transit bus replacement, repower, or conversion and/or charging infrastructure (new, conversion, or expansion of battery charging or alternative fuel stations)	Competitive	Annual appropriation	\$30M* for SCAQMD region  <i>*Subject to SCAQMD funding distribution guidelines</i>	6/4/2019
AB 617 (Community Air Protection Program)	Quality Management District (SCAQMD)			One-time Carl Moyer supplemental appropriation	Up to \$100M* for SCAQMD region  <i>*Funding amount pending final CARB action, expected April 25-26, 2019, and final SCAQMD action, expected subsequent to final CARB action</i>	6/4/2019
Volkswagen Environmental Mitigation Trust Fund: Zero Emission Transit, School, and Shuttle Buses	CARB	Transit bus replacements and supportive infrastructure	First-come, first-serve	One-time funding	Up to \$65M* statewide  <i>*Final funding guidelines pending work group process and CARB action - funding will be made available in two increments two years apart</i>	Expected: Summer 2019
FTA Bus and Bus Facilities Competitive Grants	FTA	Capital projects to replace, rehabilitate, purchase or lease buses + capital projects to rehabilitate, purchase, construct or lease bus-related facilities	Competitive	Annual appropriation	\$427M nationwide for FY 2018-19  <i>*Per federal statute, no single grantee may receive more than 10 percent of the total available funds</i>	Expected: August 2019
Southern California Edison (SCE) Medium- and Heavy-Duty Charging Infrastructure Program	California Public Utilities Commission (CPUC) + SCE	Electric infrastructure to serve charging equipment for medium- and heavy-duty vehicles	First-come, first-serve	One-time funding	\$342.7M for SCE region  <i>*At least \$30.3M of \$201.8M infrastructure budget must serve transit agencies * \$64.6M available for transit and school bus customer charging station rebates * \$35.9M available for charging station rebates for sites in DACs.</i>	Funding available over a four-year period through 2023
Volkswagen Electrify America Cycle 2	Electrify America (CARB Oversight)	Transit bus and shuttle charging	Competitive	One-time funding	\$4M to \$6M statewide	Underway

Table excludes CARB's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) - applications for this FY led by Metro Vehicle Technology & Acquisition have been submitted

# Funding Opportunities for Light-Duty Zero-Emission Vehicle Infrastructure

PROGRAM	AGENCY	ELIGIBLE PROJECTS	PROCESS	DISTRIBUTION	FUNDING AVAILABILITY	DEADLINE
Volkswagen Environmental Mitigation Trust Fund: <i>Light-Duty Zero-Emission Vehicles (ZEV) Infrastructure</i>	CARB	ZEV Infrastructure	Competitive	One-time funding	\$10M* statewide <i>*Including \$5M for charging stations</i> <i>*Including \$5M for hydrogen fueling</i>	Expected: Summer 2019
California Energy Commission (CEC): <i>Alternative &amp; Renewable Fuel &amp; Vehicle Technology Program</i>	CEC + Southern California Incentive Project (SCIP)	ZEV Infrastructure	First-come, first-serve + Competitive	Annual appropriation	\$52.7M* statewide <i>*Including \$32.7M for Electric Vehicle Charging Infrastructure</i> <i>*Including \$20M for Hydrogen Refueling Infrastructure</i>	Mid-2019
Volkswagen Electrify America: <i>Cycle 2 - Metro Community Charging</i>	Electrify America (CARB Oversight)	ZEV Infrastructure	Competitive	One-time funding	Approximately \$32M for the Los Angeles-Long Beach-Anaheim urbanized area	Underway

# Metro Grant Applications for ZEB/ZEV and Infrastructure, 2009-present

PROGRAM	GRANTOR AGENCY	PROJECT DESCRIPTION	FUNDING/AWARD	YEAR
Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) Program	FTA	Transit Bus Electrification Program	\$0	2009
Section 5309 Bus and Bus-Related Facilities (earmark)	FTA	Zero Emission Bus Demonstration Project	\$475,000	2010
Alternative and Renewable Fuel and Vehicle Technology Program	California Energy Commission	Electric Vehicle Charging Stations at Metro Park and Ride locations	\$415,185	2012
Alternative and Renewable Fuel and Vehicle Technology Program	California Energy Commission	Electric Vehicle Charging Stations at Metro Park and Ride locations	\$492,000	2014
Low or No Emission Vehicle Deployment Program	FTA	Deployment of Zero Emission Articulated Buses and Charging Stations for the Los Angeles Metro Orange Line	\$0	2014
Low or No Emission Vehicle Deployment Program	FTA	Deployment of Zero Emission Articulated Buses and Charging Stations for the Los Angeles Metro Orange Line	\$4,275,000	2015
Air Quality Improvement Program (AQIP)	CARB	Los Angeles Metro Orange Line Bus Rapid Transit Zero Emission Project	\$0	2016
Low or No Emission Vehicle Deployment Program	FTA	Deployment of Zero-Emission Articulated Buses and Charging Stations for the Los Angeles Metro Orange Line	\$0	2016
Transit and Intercity Rail Capital Program	California State Transportation Agency	Metro Orange Line Bus Rapid Transit Zero Emission Modernization Project	\$0	2016
Buses and Bus Facilities Infrastructure Investment Program	FTA	Deployment of Zero-Emission Buses and Charging Stations for the Los Angeles Metro Silver Line	\$0	2017
Low or No Emission Vehicle Deployment Program	FTA	Articulated Battery-Electric Buses for the Metro Orange Line	\$0	2017
California Zero Emission Vehicle Investment Plan (Cycle 1)	Volkswagen Group of America / Electrify America	Los Angeles Metro Orange Line Bus Rapid Transit Zero Emission Modernization Project	\$0	2017
California Zero Emission Vehicle Investment Plan (Cycle 1) <sup>a</sup>	Volkswagen Group of America / Electrify America	Enhancing Electric Vehicle Charging Networks and Transit Connectivity in the Los Angeles Metro Area	\$0	2017
Buses and Bus Facilities Infrastructure Investment Program	FTA	Bus Replacement	\$5,457,098	2018
Mobile Source Air Pollution Reduction Review Committee - County Transportation Commission Partnership Program	South Coast Air Quality Management District	Metro Orange Line Zero-Emission Bus Purchases	\$2,000,000	2018
California Zero Emission Vehicle Investment Plan (Cycle2)	Volkswagen Group of America / Electrify America	Microtransit Project: Vehicles and Charging Stations for Six Service Zones	pending	2018
Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)/Voucher Enhancement for Electric Vehicle Supply Equipment (EVSE) <sup>b</sup>	CARB	Total of 105 Zero-Emission Battery Electric Buses	\$21,500,000	Starting late 2019

a. Considered for funding at seven locations. However, could not proceed due to disagreement over terms.

b. Credit provided on a first-come/first-serve basis until all funding available for the programs is accounted for.