



# Agenda

## Metro Sustainability Council

LA Metro HQ  
University Conference Room  
4<sup>th</sup> Floor  
One Gateway Plaza  
Los Angeles, CA

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### Agenda

- a. Welcome/Introductions: Chair (5 min)
  - b. Approval of Minutes: Chair (5 min)
  - c. Meetings ARC Update: Stephanie (3 min)
  - d. Announce Vice Chair Vacancy: Chair (5 min)
  - e. Introduce Green Procurement Policy: Carolina (20 min)
  - f. Introduce Resiliency Framework: Andrina (20 min)
  - g. CAAP Workshop Prep – GHG Reduction Strategies: Stephanie (15 min)
  - h. Action Items Log: Aaron (5 min)
- 





# 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/Introductions: Chair (5 min)
  - b. Approval of Minutes: Chair (5 min)
  - c. Draft Meetings ARC for FY19: Bryan (10 min)
  - d. Introduce Climate Action Plan Update: Cris (20 min)
  - e. Oral Update on LRTP Outreach & Activities: Paul (20 min)
  - f. Motion 57 Update Follow-up: Stephanie (10 min)
  - g. Vacant Council Positions: Chair (15 min)
  - h. Subcommittees Discussion: Chair (15 min)
  - i. Action Items Log: Aaron (10 min)
- 



## MEETING MINUTES

### Introductions

Council members' self-introductions.  
Community guests' self-introductions.

**Chair Smalls:** Tribute to Dilara El-Assaad Rodriguez

**Announcement:** SCAQMD Community Kickoff meeting, (AB) 617 – Tues Oct 16. For questions contact Fabian Wesson, SCAQMD Public Advisor at (909) 396-2432 or at [publicadvisor@aqmd.gov](mailto:publicadvisor@aqmd.gov).

**Chair Smalls:** Approval of the Minutes:

- No comments on meeting minutes
- Bruce Reznik – Motion; Joel Levin 2<sup>nd</sup> – Approved.

**Bryan Pennington** (self-introduction): Stephanie Wiggins announced at the last meeting that we are the three amigos and I am the Amigo for this meeting. We developed the priorities that are outlined in the development of the Colorful Chart. Encourages Council to come up with a better name than Colorful Chart.

From discussions at Metro have taken key priorities from Metro, identified 3 initiatives that are FY19 Priorities:

1. Climate Action and Adaptation Plan (CAAP)
2. Resiliency Framework
3. Policy Green Procurements and then there is a fourth time how this all links to the LRTP

Brian commenced a review of draft ARC (Meeting Agenda and Topics for the next 6 months); Month by month, will be dealing with all four issues. To set schedules and goals in terms of time and how to review each process.

Agrees with Council Chair that the ARC gives everyone a focus and understanding of priorities associated. Though the ARC will be updated from time to time, the FY19 priorities will not change. What may change is that other issues become important as dialogue progresses. The Chart is consistent with framework to move forward throughout the year.

Bryan Pennington asks if anyone has questions.

**Joel Levin** (Exec. Dir, Plug in America): Would like to see LA Metro EV implementation plan added to ARC when draft is complete.

**Chair Small:** That's the kind of living flexibility that we want to inject into this. The ARC gives backbone to check and see progress that we're making. To be productive, we need to be open to other things members can bring in terms of presentation and input. Chair Small asks Joel to keep Council updated about EV Implementation Plan as it progresses so Council will know when to schedule a presentation.

**Belinda Faustinos:** It would be helpful to get an update on where the implementation of the RAMP RCIS plan is.



**Cris Liban:** Staff is progressing faster than expected on some items in the ARC. Council will be advised of early completions (as well as reasons for delays). Regarding the RAMP; the Board rec'd and filed document. Conversations in terms of what it means in an urban environment.

**Belinda:** Recommends a broader RCIS program;

## **CLIMATE ACTION PLAN – PRESENTATION (Cris Liban)**

Hardcopy presentation is in agenda packet.

**Cris:** Due to changes in legislation and strategy from the state and on statutes; we felt it was time not only to update CAAP but do it aggressively. Cris addresses present updates about CAAP:

1. What is CAAP?
2. What does CAAP provide?
3. Why update CAAP?
4. Schedule for input from Council.

Document is downloadable: [metro.net/ecsd/plans and studies/climate action and adaptation plan](http://metro.net/ecsd/plans%20and%20studies/climate%20action%20and%20adaptation%20plan)  
[http://media.metro.net/projects\\_studies/sustainability/images/Climate\\_Action\\_Plan.pdf](http://media.metro.net/projects_studies/sustainability/images/Climate_Action_Plan.pdf)

### **Presentation Questions:**

**John Williams (Question):** Have you tracked emissions against the forecast?

**Cris Liban (Response):** We are following the act of protocol in terms of emission calculations. There are three parts of equation: Emissions, Displacement, Meth Emissions. As an agency LA Metro; on average is displacing about one hundred thousand metric tons per year. We are a rating negative carbon agency.

**John Williams:** So that has to do with the number of cars removed from the streets?

**Cris Liban:** There is no formal tracking of GHG emissions versus what we're achieving.

**John Williams:** What if you just look at operations and not ground displacement?

**Cris Liban:** If you look at the annual Energy Resource report, it's been declining through increased operations.

**Bryn Lindblad (Question):** The CAAP, it doesn't have a BMT effect, right? It's only Metro's footprint and not about the effect it's having with what other cars have on the road?

**Cris Liban (Response):** Not in that context; which is why we wanted to include this update to include a lot of these activities that might be relevant to the operations of the agency and still be conclusive and educational to the LRTP.

**Barbara Marquez (Dep. Distr. Dir., Caltrans) –** I understand operations from Metro's perspective. What about highway projects?



**Cris Liban** (Response): We have been inclusive in reaching out to CalTrans through our highway programs.

**Michael Samulon** (Sr. Policy Analyst, City of LA): Encourage to include an annual benchmarking against the updated path so you're following the protocol used to reach your numbers. It's what we're doing in the City.

**Roy Thun** (Sr. Environment Specialist, GHD): Cautions of how the state – in terms of double counting. Everyone wants to capture credit for displacement. I don't think there's a common system yet. States trying to figure out total adaptation plan. CalTrans and Metro will have major impact on how this looks.

**Hilda Blanco**: Have you thought of publishing this on a regular basis? Right now, Climate Registry is putting together something. All of these concerns can be thought out.

**Joel Levin**: That's true. It's worth doing. I used to be the guy who did that. CAAP Update / Report resiliency framework next month

## **METRO Long Range Transportation Planning (LRTP) REPORT**

Overview by Paul Backstrom from Metro Planning Department

Addresses the 3 main areas:

### **OUTREACH**

4 major outreach pushes:

1. Baseline (asking open-ended questions)
2. Values (tradeoffs/preferences)
3. Investment Scenarios
4. Draft

Whenever something is learned in later phases, Planning will go back and make changes. Currently in the baseline phase, asking open ended questions, Paul invites Council to review the newly developed website: <http://ournext.la/>, take the survey and share with friends, family and colleagues as feedback is vital.

Survey was pushed to Metro and County employees as well as Los Angeles International Airport. There are Facebook ads and community events.

Two additional events coming up:

1. South Bay (disabilities)
2. Veterans Outreach

Additionally, there has been outreaching to elected officials and key stakeholders. Planning has updated the Metro internal long-range website.

Other activities within Planning development; there are 7 modules in LRTP. We're focused on development of 3 of them. We will utilize existing conditions and values framework. Right now, the work focused on vision 20/20 strategic plan.

On the Feb Council Meeting agenda we will show the results of the Nextgen survey and develop framework in chapter for values section. Continuing to coordinate



## QUESTIONS:

**Bruce Reznik:** To the extent that you want to take advantage of this group. This group can reach a lot of people. Bruce suggested make it simple. 4 or 5 times

**Thomas Small:** How are we evaluating outreach efforts.

**Paul Backstrom:** Trying to adapt to new methods and perform surveys to LA County employee's beginning in November. The goal is to go through several phases. Email list is growing in numbers.

We will try to continue to cast broader nets. Try to reach every single county resident that has some sort of social presence. Try to be adaptive.

**Chair Small:** How about reaching out directly to ridership?

**Paul Backstrom:** We have a lot of ridership info now. Info we have moving forward. Not just talking about transit surveys. The goal is to go above and beyond ridership. We want to make sure we're capturing ALL priorities.

**Michael Samulon:** Recommends LA Library for additional surveys. Michael will send tool kit. Michael indicated they have given survey link to a lot of people. We haven't seen a lot of traffic from other sources. Outreach will be ongoing.

**Hilda Blanco:** Any observation studies during the outreach; Is affordable housing important to you?

**Hilda Blanco:** There should be an objective observation of what's going on. There were classic studies.... that might give you insight that responding to questionnaires might not. Asking communities to tell us what is important to them; what we need to focus on.

**Chair Small:** In gov't, outreach is the most important and hardest thing. Manuel Pastor talked about going to where the people are. Daycares, homeless shelters, etc. We are taking a very specific look to equity. A meaningful part of that is engagement. Try to hit an enormous spectrum of events. It's a long process. The question is also the pace. When do I need to pay attention? It's not always going to be what someone wants to hear.

**Anthony Brower:** Massive undertaking. Team with GoPros trying to capture things you can't get with surveys. Can connect you with that team.

**Chair Small:** This could be a topic. Set of recommendations from this council. Everything that Metro has

**Paul Backstrom:** Paul reiterates Feb follow-up.

**Belinda Faustinos:** Advance materials? Thoughtful constructive. From constituency work

**Paul Backstrom:** We'll bring materials. Would have given this presentation a month or two ago. Stephanie did ask if we had a PPT.

**Cris:** We do want to provide advance documentation.

**(NEXT TOPIC)**

**Bryan Pennington:** As we continue, we have clear FY 19 priorities and will stay focused; the Colorful chart will not be forgotten. We will continue to update on a monthly basis. The colors will change as we progress. There are various members of Council who have interests in segments of the Board 57 motion items with clear Metro priorities.

**B. Pennington:** Priorities are indicated in the Meeting ARC

**Chair Small:** Any lingering thoughts should be addressed.

**Cris:** Cris asked if the Council Subcommittees are still relevant.

**Bryn –** I want to make note that the colorful chart does not include all items in correlation with Motion 57. Finding ways to update those Motion 57 items.

**Bruce Reznik:** Perhaps Bryn can come up with a list of things that we don't think are fully captured.

**Chair Small:** We can get them on the agenda.

**B. Pennington:** If you give us preliminary info, it will be addressed.

**Caryn Mandelbaum:** When is the next time the Metro board wants an update on Motion 57?

**Cris:** We intend to annually update them. July/August timeframe. The MSIP (Metro Sustainability Implementation Plan) will be our reporting tool to update the Board Motion 57 and other projects and efforts on the chart. MSIP update will occur in Feb timeframe.

**Caryn:** Will it be possible to develop a timeframe?

**B. Pennington:** If Council decides that they want a verbal report, a request to staff would be preferred. We don't want to bog the meeting down with a lot of detail. We'll ensure an update to the 'colorful chart' every month.

**Bryn Lindblad:** Can we see that in track changes form?

**Bryan:** We can look at the logistics of this.

**Cris:** Perhaps Aaron can include a pink flag for updated information.

## **(NEW TOPIC) VACANT COUNCIL MEMBERS**

**Cris:** Cris mentioned that we might have more interest from faith-based organizations;

**Bruce:** A lot of vacancies are NGO. The list is outdated. It is not up to this agency to recruit. I don't think we do stipends for this group, but this might make a difference. Active transportation is a missing category.

**Dilara:** I will be working with Aaron to reflect on who is here.

**Dilara:** I received an application yesterday.

**Joel:** What is the process?

**Cris:** We will adhere to the by-laws; Selection committee vets Council applicants.

**Joel:** So we need a Selection Committee?

**Chair Small:** I'd like to see if we can initiate that process. We'd like to see which spots are open?

Small Cities alternate  
Air quality; primary and alt  
Habitat/Natural resources: Alt

**B Reznik:** Steven Johnson is no longer with Heal the Bay

**Social Justice:** Per Bruce, we came up with 5 or 6 representatives.

**Caryn:** We'd like to reiterate – Some of these groups are on shoestring budgets as it is. We can't ask them to invest their time without offering a stipend. They have a large reach within their prospective communities.

**Labor Unions:** Per Dilara, will forward the application to Aaron.

**Public Health:** Not filled

**Joel:** Moves to adopt a Selection Committee process. All "ayes".

Next meeting, we will further report to find what opportunities there are.

## **(NEW TOPIC) SUBCOMMITTEES**

**Belinda:** Main issue: Develop of an implementation plan for subcommittees.

**Chair Small:** We can report in next meeting in how Subcommittees can best move forward.

**Roy Thun:** There's a lot of passion around aspirational sustainability concepts. I believe there is room for the Council to address both Motion 57 and other subcommittee projects.

**Bryan:** The way we set up these documents is based on the concern of Council members.  
T. Small: Observation is accurate.





**S. Wiggins:** We have to manage the feedback we get. We will provide a comment disposition log. We will be asking the Executive Committee to provide comments before the Board.

**ACTION LOG:**

Aaron facilitated the announcement of Action Items and will track action item log: Aaron iterated that everyone is given cards to contribute topics. The card response will be updated monthly and documented.

**Mehran Mazari:** Announced CSI conference registration

**Doug:** Requirements include submission of an abstract (250 words or less). Same group is looking for reviewers.

**Bryn:** Can we get an Action Item Log? (yes)

**Bruce:** Will it incorporate what members seats are vacant and relevant information?

**Belinda:** We need clarification if we want to be prepared to make recommendations for that. Ad hoc committees can prepare responses to topics so the rest of the committee and actually come up with concrete recommendations.

**Cris:** There is no report to review next month; there will be a technical memo to look at; the intent is to send it out to whoever ahead of time.

**S. Wiggins:** What we would like to do is send out a minimum one week in advance. We would like to structure Council Meetings to have breakout sessions, so you all can be working in your smaller groups again, in recognition of the issue of resources.

**Bryn:** In the packet there is a scope of work for the CAAP; on page 45 there is a bulleted list of what we're going to get a presentation on?

**Cris:** As shown on the ARC, we will be giving you an opportunity to review and respond to those CAAP items.

**Peter Meng:** In support of new topics on social justice.

***Meeting Adjourned by Chair Small.***

**Attachments:**

Attachment A – Attendee List

Attachment B – Draft notes for item E: Oral Update on LRTP Outreach & Activities

## ATTENDEE LIST

ATTENDED	COUNCIL MEMBER	NOT ATTENDED	COUNCIL MEMBER
Y	Berwyn Salazar	N	Aki Luukkainen
Y	Roy Thun	N	Carolyn Hull
Y	Thomas Small	N	Charles Favors
Y	Anthony Brower	N	Cindy Montanez
Y	Joe Ablay	N	Debra Avila
Y	John Williams	N	Dominique Hargreaves
Y	James Okazaki	N	Elizabeth Rhoades
Y	Belinda Faustinos	N	Emily Freund
Y	Bruce Reznik	N	Fernando Cazares
Y	Bryn Lindblad	N	Gary Gero
Y	Hilda Blanco	N	Ghina Yamout
Y	Rita Kampalath	N	Jack Sahl
Y	Michael Samulon	N	Kimberly Colbert
Y	Doug Dietrich	N	Kristen Torres-Pawling
Y	Mehran Mazari	N	Lauren Faber
Y	Caryn Mandelbaum	N	Mark Hunter
Y	Stephen Cheung	N	Mark Kempton
Y	Joel Levin	N	Michael Swords
Y	Peter Meng	N	Mike Bagheri
Y	Patricia Menjivar	N	Omar Gomez
		N	Pavitra Rammohan
		N	Salem Afeworki
		N	Steven JOHNSON
		N	Wendy RAMALLO
		N	Will WRIGHT

## NON-MEMBERS:

### ATTENDED

Bryan Pennington  
Stephanie Wiggins (Attended at 10:30am)  
Aaron Santos  
Christine Marez  
Valerie Davis  
Carolina Coppolo  
Linda Bybee  
Alvin Kusumoto  
Cris Liban  
Barbara Marquez

### NOT ATTENDED

Richard Clarke

**L RTP Update:**

1. Outreach Efforts

- a. Four major engagement points
  - i. Baseline
  - ii. Values
  - iii. Alternative Investment Scenarios
  - iv. Final
- b. Iterative Process
- c. Baseline Outreach Round 1
  - i. Launched Project Website- Our Next.LA
    - 1. Survey
    - 2. Community meetings
- d. SURVEY-
  - i. Metro employees
  - ii. County Employees
  - iii. Major Employers
  - iv. Digital Ad buys Facebook ads
- e. COMMUNITY EVENTS- two major events in each subregion +
- f. ADDITIONAL BRIEFINGS-CBO's , elected officials and key stakeholders
- g. UPDATED METRO LRTP
  - i. Board reports
  - ii. Direct to project website

2. Ongoing Activities with Plan Development- Seven modules comprise our LRTP

- a. Seven modules total:
  - i. **Vision:** **What do we want to achieve?**
  - ii. Orientation and Context: Who is Metro what do we do?
  - iii. **Baseline Understanding:** **Defines existing conditions for future commitments based on adopted plans and programs.**
  - iv. **Values Framework** **Expression of stakeholder values to help shape decisions and measure performance**
  - v. Transportation Network and Management Plan: Network operations and asset management
  - vi. Implementing the Plan CIP and Funding.
  - vii. Enduring Relevance Annual reporting and evaluation
- b. Vision 2028 inform Vision module
- c. Baseline Communities and Partners
  - i. Baseline Partners Survey
- d. Values Framework

### 3. Next Steps

- a. Baseline outreach to close.
- b. Outreach for Values kick-off
  - i. Online tool
- c. Develop Values Framework module
- d. Ongoing coordination with Parallel efforts
  - i. Equity
  - ii. Next Gen
  - iii. BRT Vision and Principles
  - iv. Transit Oriented Communities
  - v. SCAG RTP/SCS

Metro Sustainability Council

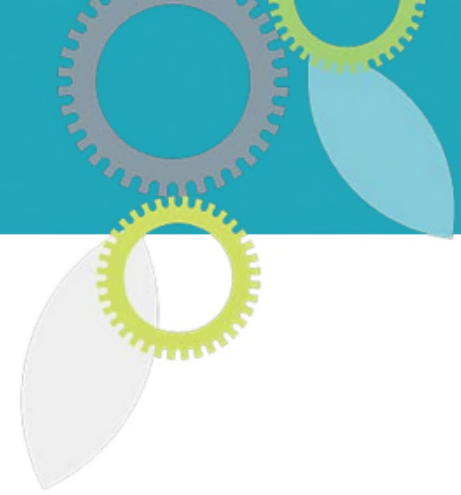


Sustainability Council  
 FY19 DRAFT Meetings Arc  
 As of *October 24, 2018*

<b>Meeting</b>	<b>Agenda Topics</b>	<b>Outcomes</b>
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

	<p>*Introduce Green Procurement Policy topic</p> <p>*CAAP Workshop Prep</p>	<p>*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.</p> <p>*Direction provided from the Council to Metro staff on developing initial recommendations on Green Procurement Policy; additional information needs identified</p> <p>* Distribute Council assignments to prepare for the December workshop discussion.</p>
December 14, 2018	<p>*CAAP Update: Introduce Candidate GHG Reduction Strategies</p> <p>*Draft EV Implementation Plan</p>	<p>*Direction provided from Council to Metro Staff on GHG reduction strategies in a workshop format</p> <p>*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.</p>
January 11, 2019	<p>*Present draft Candidate Climate Adaptation Strategies; continue discussions re: CAAP Update</p> <p>*Present draft Green Procurement Policy</p> <p>* GHG Inventory/Forecast</p> <p>*Final EV Implementation Plan</p>	<p>*Feedback provided by the Council to Metro staff on draft Candidate Climate Adaptation Strategies; CAAP Update</p> <p>*Feedback provided by the Council to Metro staff on draft Green Procurement Policy</p> <p>* Provide an update and receive feedback input on the methodology and results of GHG inventory</p> <p>*Consensus Comments received from the Council to Metro Staff on the draft EV Implementation Plan</p>
February 8, 2019	<p>*Adaptation &amp; Resiliency Workshop</p> <p>*Presentation on LRTP Values Framework</p>	<p>*Feedback provided by the Council to Metro staff at the Workshop</p> <p>* All participants leave meeting with a basic understanding of the LRTP development progress, including the</p>

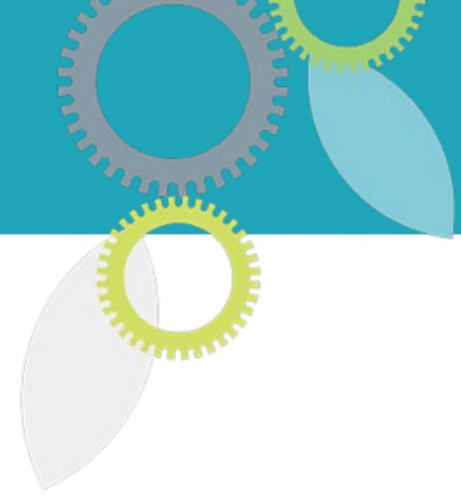
	<ul style="list-style-type: none"> <li>* GHG Reduction Analysis</li> <li>* County of Los Angeles Draft Sustainability Plan</li> </ul>	<ul style="list-style-type: none"> <li>Values Framework and provide feedback as part of the outreach effort.</li> <li>*Provide an update and receive feedback from Council on the GHG Reduction Strategies</li> <li>*Feedback provided by the Council on County Sustainability Plan</li> </ul>
March 8, 2019	*Motion 57 Progress Update	<ul style="list-style-type: none"> <li>*Consensus Comments received from the Council to Metro Staff on draft Chapters 1, 2, and 5 of the CAAP Update</li> <li>*Consensus Comments received from 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</li> </ul>
April 12, 2019	*Adopt Green Procurement Policy	<ul style="list-style-type: none"> <li>*Consensus Comments received from the Council to Metro Staff on draft Chapters 3, 4, and Executive Summary of the CAAP Update</li> <li>*Green Procurement Policy recommendations &amp; metrics adopted by the Council</li> </ul>
May 10, 2019	<ul style="list-style-type: none"> <li>*Adopt CAAP Update</li> <li>*Adopt Resiliency Framework</li> </ul>	<ul style="list-style-type: none"> <li>*CAAP Update recommendations &amp; metrics adopted by the Council</li> <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>	*All participants discuss potential policy topics for FY20 cycle



# Metro Green Procurement Program

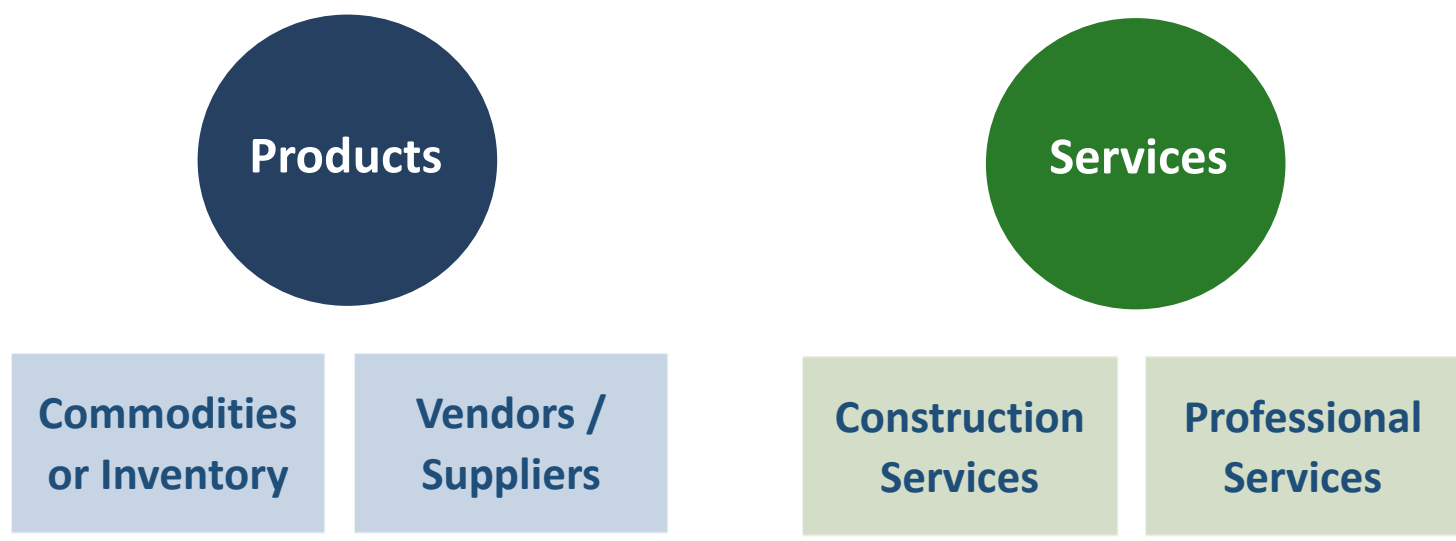
Project Introduction  
November 9, 2018





# Project Vision

To integrate **Environmental**, **Ethical**, and **Social** considerations into Metro's procurement processes for **products** and **vendor services** for its **operational and construction needs**.



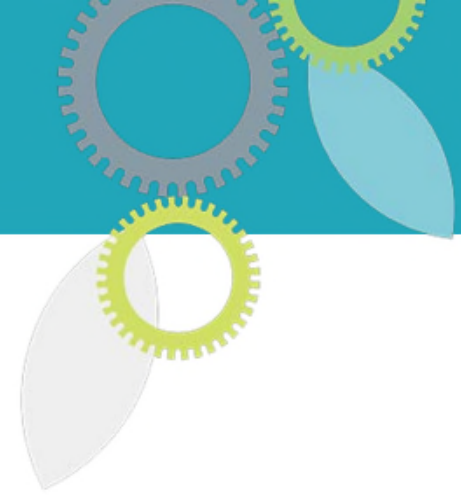


**Metro**

# Benefits of Green Procurement

- **Driving Innovation**  
Leveraging business partners to drive innovation
- **Eco-efficiency & Sustainability Benefits**  
Reducing waste, energy consumption, and GHG emissions
- **Brand Enhancement**  
Enhancing Metro's reputation as a Sustainability leader
- **Financial ROI**  
Purchasing green products and services that reduce the cost of ownership over the lifecycle
- **Risk Reduction**  
Reducing exposure to toxins in consumer goods and construction building products
- **Engaged Employees**  
Connecting employees to corporate sustainability mission





# Metro's Current Practices

Metro has many pieces in place, this effort will integrate and build on these

## Procurement

- Green Construction Policy (RR-01)
- Green Construction Policy Specifications (01 35 66)

## Committees

- Chemical Standards Committee

## Programs

- ISO 14001 Environmental Management System
- Strategic Initiative for Regulatory Compliance
- Sustainability Plan Program (e.g. LEED, Envision)
- Low Carbon Fuel Standards Credit program
  - ✓ Metro generates and markets (sells) LCFS credits from its low-carbon fuels including renewable natural gas (RNG) and electricity (rail and EVs).

## Specifications and Requirements

- Metro Rail Design Criteria (MRDC)
- Metro Bus Rapid Transit Criteria (BRT)
- 01 35 29 Health, Safety And Emergency Response For Contaminated And Hazardous Sites
- 01 35 43 Environmental Procedures For Contaminated And Hazardous Materials
- 01 35 63 Sustainability Plan
- 01 56 39 Shrub And Tree Protection
- 01 74 00 Cleaning
- 01 74 19 Waste Management And Disposal



## HIGHLIGHT GREEN PROCUREMENT



### > Green Construction Policy (GCP)

- Reduce emissions on construction projects through regulation of contractor equipment and vehicles
- Requirement for Renewable Diesel for contractor bulk fuel purchasing

### CASE STUDY: Crenshaw LAX

The reduction in emissions related to construction activity for CLAX was equivalent to removing over

# 15,000

cars from the road



CalEnviroScreen Map of LA With Existing and Proposed Transit Alignments





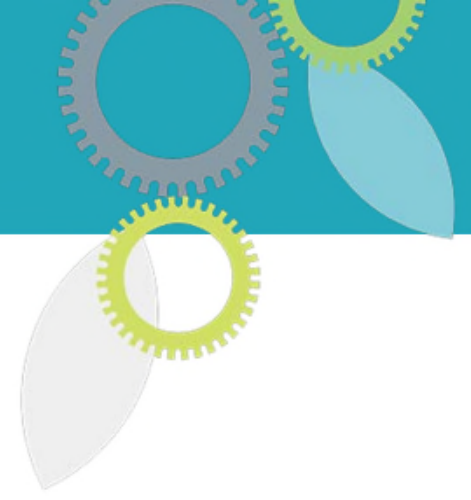
**Metro**

HIGHLIGHT  
GREEN  
PROCUREMENT



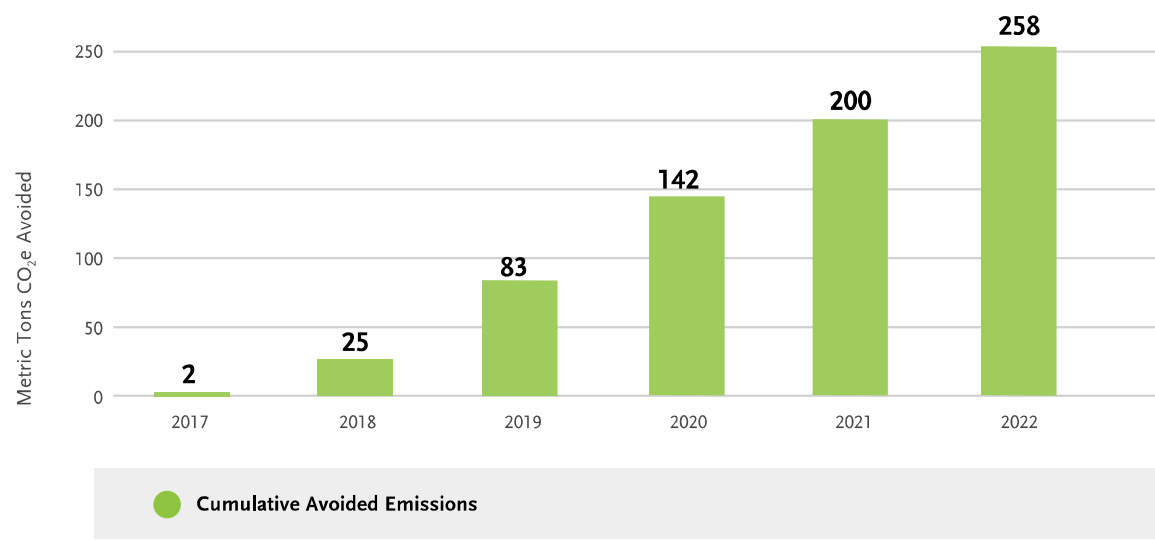
By 2019, over  
**15%**

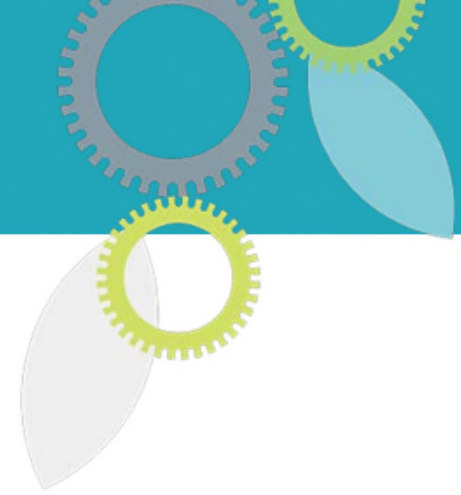
of Metro's non-revenue  
sedan fleet will be BEVs



- > **Transition Non-Revenue Fleet to Battery Electric Vehicles (EV):**
  - 10 all-electric Chevy Bolts (2017)
  - 20 more Chevy Bolts (2018-19)
- > **EV charging stations**
- > **Bus Electrification Program**
  - 100% conversion goal by 2030
  - 95 buses initially purchased

Projected Cumulative Avoided GHG Emissions of Expanded BEV Fleet



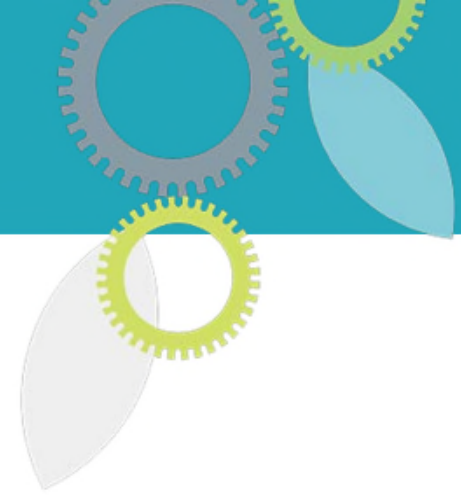


## Challenges Considered

- Workforce Development
- Potential Increased Costs
- Availability of 'eco-friendly' materials
- Lack of available suppliers
- Technology
- Increase procurement cycle time







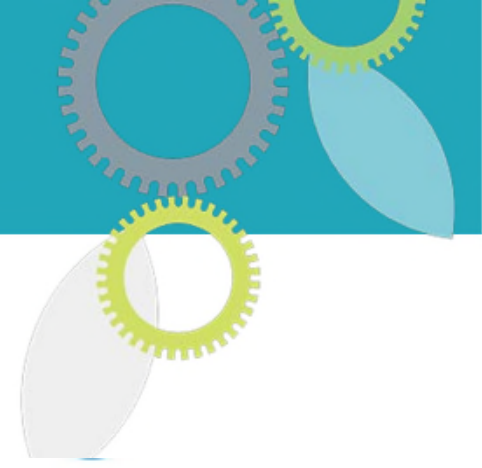
# Work Plan

## PHASE 1 | PROGRAM DEVELOPMENT

- **Baseline Assessment of purchasing and procurement processes**
  - Assess current Policies, Specifications, Committees, and Programs.
  - Analyze product categories and develop work flow processes
  - Conduct Interviews with Vendor/Contract Management
- **Development of Green Procurement Policy and Framework:**
  - Agency-wide 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 and vendor services contracts.



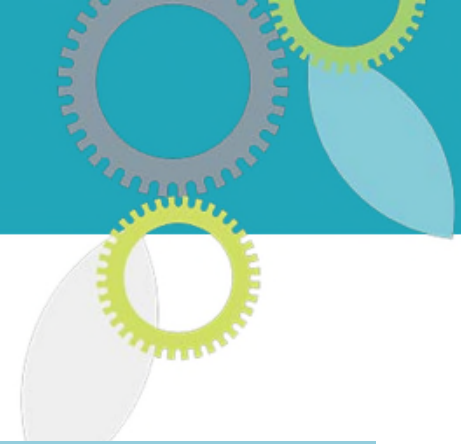
# Framework and Project Outcomes



**Phase 1:** Framework includes ALL Areas

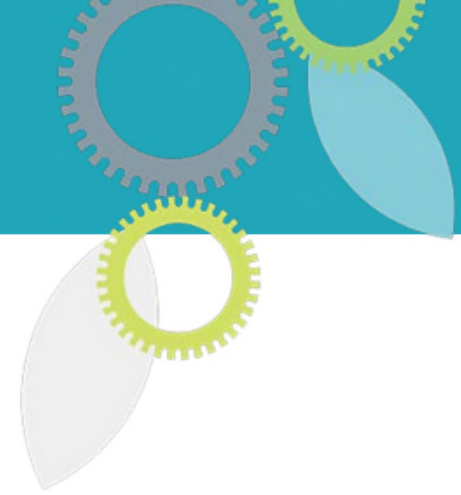
**Phase 2:** \* Indicates areas to be implemented in Phase 2





# Schedule of Activities

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



## Green Procurement at Other Agencies



### Bay Area Rapid Transit

- Adopted a Low Carbon Fuel Standard Policy on July 27, 2017



### King County Metro

- Established sustainable procurement priorities
- Provides sustainable purchasing training and tools for staff



### Sound Transit (Seattle WA)

- (Jan 2016) Established sustainability priority to ensure a percent of new procurements include green methods and features.
- (2017) Reported 93% of agency procurements assessed for green methods and features. 33% of new procurements included green methods and features.



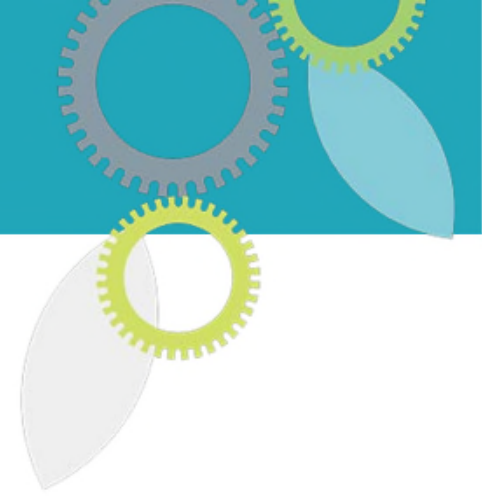
### Toronto Transit Commission

- Green Procurement Policy approved July 2008 followed by training and tools for staff
- Established 11 TTC-wide environmental standards and Total Cost of Ownership analysis
- Collaborative innovation projects with key vendors



### Port Authority of New York & New Jersey

- Board-Approved Sustainability Policy janitorial services
  - Over \$100M worth of contracts
  - Bi-State Executive Orders
- Implemented outreach program Vendors/Small Businesses; Surveys, Roundtables, Workshops
  -



## FEEDBACK AND COMMENTS

- Solicit Sustainability Council feedback and comments
- Questions and Clarification



# Metro Resiliency Indicators Framework

## Project Overview and Update



**Metro**<sup>®</sup>

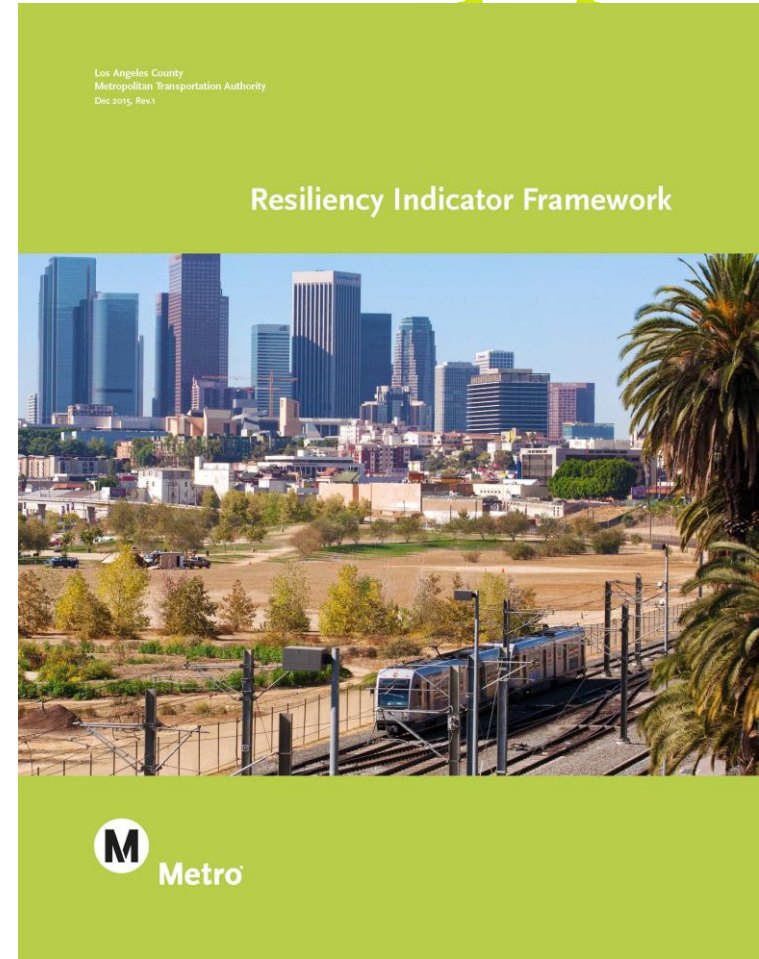
November 2018

Prepared for Los Angeles County Metropolitan Transportation Authority



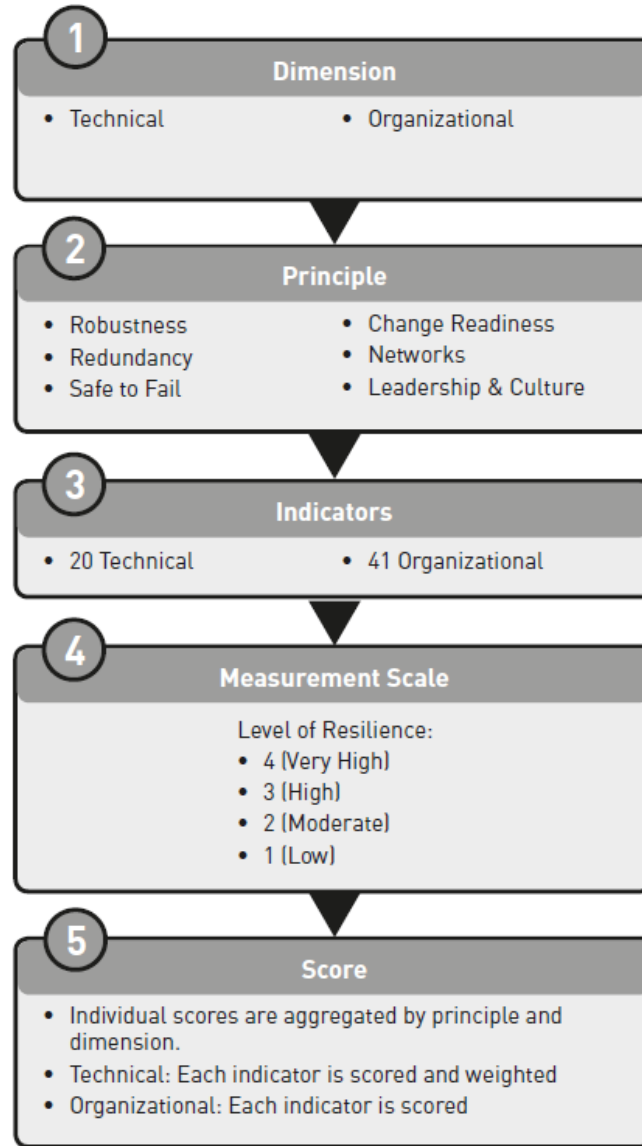
# Framework Update

- **Originally released in 2015**
- **Outlines 20 technical and 41 operational resiliency indicators**
  - Technical indicators vetted and applied using case studies
  - Operational indicators not yet tested or applied in case studies
- **2018 update includes:**
  - Review and updates to the operational indicators
  - Development of a weighting system for indicators in order to develop overall Operational Resiliency score



# Framework Process

Figure 2-1: Framework Process



# Frame- work Tool

160108\_Resiliency Framework\_BLANK - Excel

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do...

Clipboard Font Alignment Number

D6 Labor/Employee Relations

2: Organizational Resilience			Project Title:	Completed by and 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>	Assessment Notes/ Score Justification	
<b>CHANGE READINESS</b>					
Communication and Warning	<b>C-1. Warnings - General Public</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>C-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>C-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		
Information and Technology	<b>C-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 or platform	Information Technology		
	<b>C-5. Current Weather Data</b> Capacity to monitor weather and temperature conditions in real time at key locations in service area.  [Referenced in Metrics for Tracking Climate Change Adaptation]	4 – Monitoring systems exist across entire network 3 – Monitoring systems exist across part of network 2 - Large gaps in monitoring systems 1 – No monitoring system	Information Technology		
	<b>C-6. Backup</b> Ensure critical information (e.g. on structures, hazards, contacts) is routinely backed-up.	4 - Back-ups taking place 3 - Documented procedure, occasional back-up 2 - Documented procedure, no back-ups	Information Technology, Records Management, Document Control		

Page 1

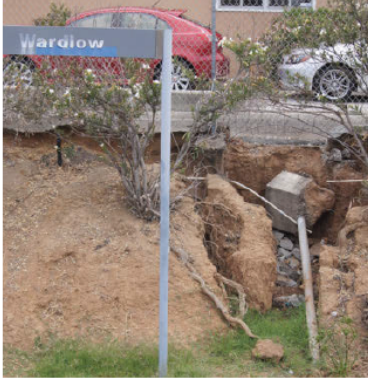
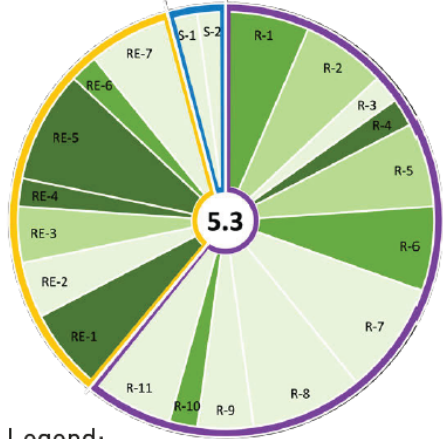
























Ready

Guidance - Completing Assessment Tech Resilience Summary - Tech Resilience Org Resilience





# Example Case Study Result

Case Study	Evaluation Summary	Resiliency Score 10 = most resilient, 1 = least resilient												
<p><b>Wardlow Station, Blue Line</b></p>  <p><b>Background:</b> The tracks that run along embankments are susceptible to bank erosion. This indicates high sensitivity to potential flood events.</p>	<p>Wardlow Station on the Blue Line received an overall resiliency score of 5.3.</p> <p>The asset scored high in the following indicators: compliance with current codes, defined alternate route/ mode choices and rerouting plans, and availability of back up parts and equipment.</p> <p>The asset scored low in the following indicators: develop overheating standards, understand extreme weather repair costs, engage utility suppliers to improve procedures, and provide capacity levels during alternate route/mode events.</p> <p>Given that safe to fail is a relatively new approach, this was not considered for the design and construction of Wardlow Station</p>	<p><b>Resiliency Score = 5.3</b></p> <p>Robustness = 4.6 Redundancy = 6.9 Safe to fail = 2.5</p>  <p><b>Legend:</b></p> <table border="0"> <tr> <td><b>Principle</b></td> <td><b>Score</b></td> </tr> <tr> <td> Robustness</td> <td> 4 (Most resilient)</td> </tr> <tr> <td> Redundancy</td> <td> 3</td> </tr> <tr> <td> Safe-to-fail</td> <td> 2</td> </tr> <tr> <td></td> <td> 1 (Least resilient)</td> </tr> <tr> <td></td> <td> NA/Incomplete</td> </tr> </table>	<b>Principle</b>	<b>Score</b>	 Robustness	 4 (Most resilient)	 Redundancy	 3	 Safe-to-fail	 2		 1 (Least resilient)		 NA/Incomplete
<b>Principle</b>	<b>Score</b>													
 Robustness	 4 (Most resilient)													
 Redundancy	 3													
 Safe-to-fail	 2													
	 1 (Least resilient)													
	 NA/Incomplete													



# Staff Engagement – Growing a Greener Workforce

- **Workshop September 27, 2018**
- **In-depth discussion that validated initial analysis**
- **Participants included:**
  - **Risk/Safety and Asset Management**
  - **Communications**
  - **Planning**
  - **Program Management**
  - **Procurement & Supply Chain Management**
  - **Operations**





# Lessons Learned So Far

- **41 Operational Indicators are too many, so we've narrowed them down to 34.**
- **The Change Readiness Principle had a disproportionate number of indicators, so we expanded the # of principles from 3 to 5.**
- **Information access and sharing is important and should be captured broadly in the indicators.**
  - Expanded 2015 Indicator C-5 to include other data besides weather (See 2018 Indicator I-5)
- **Indicators need to have a clear distinction between those capturing planning for incidents versus those capturing longer-term planning.**



# Lessons Learned So Far (cont'd)

- **The Leadership & Culture Principle indicators should more clearly reflect:**
  - Whether leadership overtly expresses resiliency as a priority
  - Whether the agency culture encourages staff engagement throughout all aspects of resiliency
- **Additional language needed to convey the context of some indicators, such as clarifying they cover *climate change* resiliency**

# Best Practices Learned through Expert Engagement

## City of Los Angeles Chief Resilience Officer

- **Form partnerships**
  - involve people from different backgrounds
  - integrate adaptation and emergency management
  - pass resilience mindset to communities
- **Focus on actionable items**
  - invest in critical infrastructure
- **Connect it back to people**
  - call out specific shocks and stressors rather than just operational metrics
  - explain why resilience matters



# Best Practices Learned through Expert Engagement (cont'd)

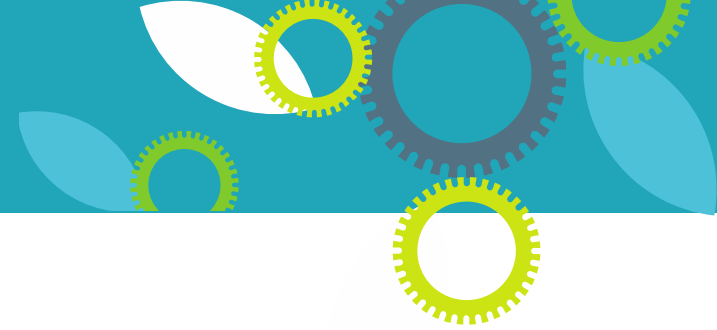
## USGBC Resilience-LA Initiative

- **Stakeholder engagement**
  - incorporate knowledge from workers at all levels
  - relate resilience to the specific situation/department
  - form external partnerships
- **Interdisciplinary framework**
  - don't just focus on the technical/physical aspects of indicators, create a system that allows one to prep for and learn from disasters
- **Multi-hazard risk assessment**
  - consider all aspects of resilience (seismic, IT, etc.)

# Organizational Indicators: 2015 vs. 2018

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

2018		
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	
	Planning and Preparing for Incidents	P-1. Risk Assessment and Scenario Planning
		P-2. Tracking Climate-Related Injuries & Other Incidents
P-3. Priority Routes/Structures to Manage First		
P-4. Emergency Management Plans - Existence		
P-5. Joint Planning		
P-6. Training/Drills – Offered		
P-7. Training/Drills/Tests – Completed		
P-8. Lessons Learned and Thinking Ahead		
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. Climate Resiliency is 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	



# Indicator Weighting

- **The same weighting system will be used for the organizational dimension as was used for the technical dimension**
- **Each indicator will receive a score 1-4 based on whether or not they met the following Metro priorities:**
  - **Safety**
  - **Service reliability**
  - **Fiscal responsibilities**
  - **Other priorities (sustainability, etc.)**



# Project Schedule

Date	Milestone
Late Aug. 2018	Project start up & initial analysis
Sept. 2018	Metro staff workshop
Oct. 2018	Revising indicators and weighting Expert consultation <ul style="list-style-type: none"><li>• City of Los Angeles Chief Resilience Officer</li><li>• USGBC Resilience-LA Initiative</li></ul>
<b>Nov. 2018</b>	<b>Seek Sustainability Council preliminary feedback</b> Organizational case study development
Feb. 2019	Draft Report
<b>May 2019</b>	<b>Seek Sustainability Council review of report</b>



# Discussion

- **Do the revised principles reflect the nature of the underlying indicators?**
- **Do the revised indicators (slide 9) still capture relevant components of resiliency?**

## **SCOPE OF WORK**

### **Resiliency Indicator Framework Update**

#### **Project Introduction and Description**

As part of the Los Angeles County Metropolitan Transportation Authority's (Metro's) Climate Change Program, the Environmental Compliance & Sustainability Department (ECSD) will provide an update to the Board of Directors on how the agency has introduced the concept of resiliency to climate change within the agency's activities and how this work fits into the overall resiliency strategy agency-wide.

#### **Scope of Work**

##### **Kick-Off Meeting**

ICF will attend a kick-off meeting with Metro staff. The purpose of the kick-off meeting is to obtain existing information and relevant documentation/technical reports from Metro, outline project expectations, verify project assumptions, reaffirm roles and responsibilities, and confirm the project schedule. Prior to the meeting, ICF will prepare a data needs list and a draft schedule that tentatively identifies milestones, workshop and meeting dates, draft and final deliverable dates and review periods, and completion dates.

##### **Framework Tool Review and Refinement**

ICF will review and assess the current tool. Additionally, ICF will review the organizational dimension's 41 criteria with Metro staff to verify and modify each criterion's language, measurement scale, and lead department/source of information.

##### **Indicator Weighting**

ICF will review the organizational dimension's 41 criteria with Metro staff to review how each criterion should be weighted, which may be best achieved against Metro's core values most relevant to resiliency: safety, service, reliability, and fiscal responsibility. However, alternative weighting methods may be accepted, and the proposed approach will be documented in a memo to Metro staff. Once the weighting system has been agreed upon, ICF will work with Metro staff and determine the appropriate weight for each criterion. The tool will be modified to incorporate the weighting.

##### **Case Study Assessment**

Once the tool has been modified per tasks 2 and 3, ICF will lead a workshop with Metro staff to conduct a scenario test of the tool and evaluate Metro's organizational resiliency in the context of a particular scenario. The case study will be documented with meeting minutes, and a case study will be developed to be incorporated into the Resiliency Indicator's Case Study section of the report, which will include the tool's graphical representation of the scenario and a high-level narrative of the workshop and outcomes. The draft case study will be circulated amongst all participants prior to finalization.

##### **Report Revision**

ICF will review the Resiliency Indicator Framework report and provide an update to the text in relation to agency, local, state, and federal context, which may include, but is not limited to: AB 2800, Metro's Strategic Plan, Metro's 28 by 2028 goal, Measure M, the Climate Action and Adaptation Plan Update, Metro's evolving design criteria and technical requirements, and the City of Los Angeles' Resiliency Strategy and Sustainability pLAN. In addition, ICF will provide an update to the Next Steps chapter of the report, and at minimum, provide an update on where the agency is with each of the next step items.

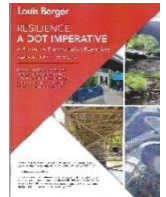
<b>Draft Metro Resiliency Framework Organizational Indicators – Revised (2018)</b>	
<b>Principle</b>	<b>Indicator</b>
Information Management and Communication	I-1. Warnings & Public Awareness
	I-2. Communication Systems - Staff
	I-3. External - Public Awareness
	I-4. Sensors
	I-5. Data - Access to, and 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
Planning and Preparing for Incidents	P-1. Risk Assessment and Scenario Planning
	P-2. Tracking Climate-Related Injuries & Other Incidents
	P-3. Priority Routes/Structures to Manage First
	P-4. Emergency Management Plans - Existence
	P-5. Joint Planning
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	P-8. Lessons Learned and Thinking Ahead
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
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Leadership & Culture	L-1. Climate Resiliency is Clear Priority of Metro Leadership
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	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

## Metro is engaged and incorporating a significant number of best practices in resiliency across the transportation industry some of which come from these research projects.

While the current work on resiliency framework is still in its formative stages, our sustainability and resiliency management has taken these ideas to ensuring that we are on the cutting edge of practice in the transportation industry.

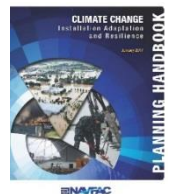
### Resilience and Sustainability Thought Leadership

NCHRP 20-59(55): **Transportation System Resilience: CEO Primer and Outreach-** in process- featured at the Transportation Resilience RISE summit, Denver, October, 2018 . In process.



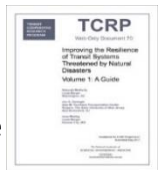
FHWA (sub to Cadmus): **Advancing Transportation Agency Capabilities on Incorporating Resilience and Durability in Programs and Practices.** Case studies, pilots and technical support through 2021.

TCRP J-11: **Social & Economic Sustainability Metrics for Public Transportation.** Working closely with APTA Working Group to identify, screen and prioritize metrics. In process through 2019.



NCHRP 08-100: **Environmental Justice Analyses When Considering Toll Implementation or Rate Changes.** Process framework, tools, case studies and resources to thoroughly address the issues. 2018. <http://www.trb.org/NCHRP/Blurbs/177062.aspx>

NAVFAC **Climate Change Planning Handbook: Installation Adaptation and Resilience** (January, 2018). Evaluation and prioritization steps with tools and examples, adopted for implementation. [https://www.fedcenter.gov/\\_kd/items/actions.cfm?action=Show&item\\_id=31041&destination=ShowItem](https://www.fedcenter.gov/_kd/items/actions.cfm?action=Show&item_id=31041&destination=ShowItem)



TCRP Web-Only Document 70: **Improving the Resilience of Transit Systems Threatened by Natural Disasters.** Steps, tools, case examples and database supporting resilience within the system and with regional interdependent partners. Guide, report and database, 2017, webinar March 2018.

<http://www.trb.org/Publications/Blurbs/177007.aspx>

NCHRP Report 777: **A Guide to Regional Transportation Planning for Disasters, Emergencies and Significant Events.** Planning principles with tips, tools and examples. 2014.

<http://www.trb.org/Publications/Blurbs/171087.aspx>

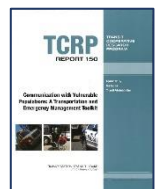


NCHRP Report 740, **A Transportation Guide for All-Hazards Evacuation.** Steps, examples and tools supporting comprehensive whole-community multi-modal evacuation planning. (2013)

<http://www.trb.org/Publications/Blurbs/168631.aspx>

TCRP Report 150, **Communication with Vulnerable Populations: A Transportation and Emergency Management Toolkit.** Practical steps and tools to identify and reach non-traditional community partners and trusted messengers for resilient and inclusive communications networks. (2011)

<http://www.trb.org/Publications/Blurbs/166060.aspx>





# Metro Climate Action and Adaptation Plan

## Preview of December Sustainability Council Workshop



**Metro**<sup>®</sup>

November 9, 2018

Prepared for Los Angeles County Metropolitan Transportation Authority





# CAAP Update in for 2019

- Successes/lessons learned
- 2017 baseline inventory
- 2030 and 2050 forecasts
- GHG reduction strategies
- Vulnerability & criticality assessment
- Adaptation strategies
- Resiliency assessment and building

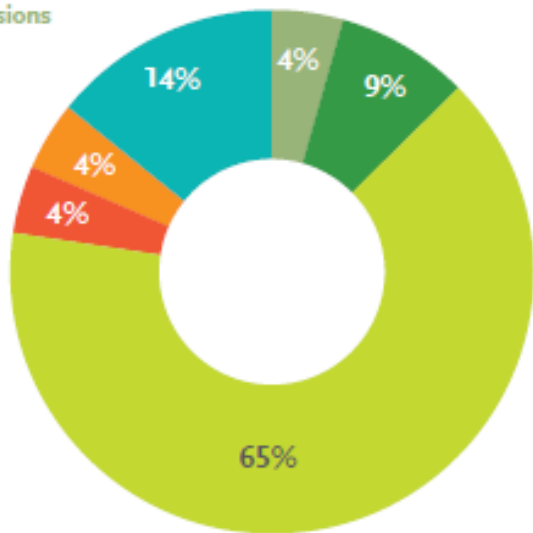
# Project Schedule

Month	GHG Inventory & Forecast	GHG Reduction Measures	Adaptation	Final CAAP
Nov	(-) Complete <i>draft</i> inventory and forecast estimates	(-) Complete <i>draft</i> measure list (-) Continue internal stakeholder interviews <b>(-) Hold Sustainability Council Pre-Workshop</b>	(-) Complete <i>draft</i> vulnerability and criticality assessment	
Dec	(-) Complete <i>final</i> inventory and forecast estimates	<b>(-) Hold Sustainability Council Workshop</b> (-) Complete <i>final</i> candidate measures list	(-) Complete <i>final</i> draft vulnerability and criticality assessment	
Jan		(-) Complete <i>draft</i> measure analysis	<b>(-) Present <i>draft</i> to Sustainability Council</b>	
Feb		(-) Complete <i>final</i> measure analysis	<b>(-) Hold Sustainability Council workshop</b>	
Mar				<b>(-) Present <i>draft part 1</i> to Sustainability Council</b>
Apr				<b>(-) Present <i>draft part 2</i> to Sustainability Council</b>
May				<b>(-) Present <i>final</i> to Sustainability Council</b>



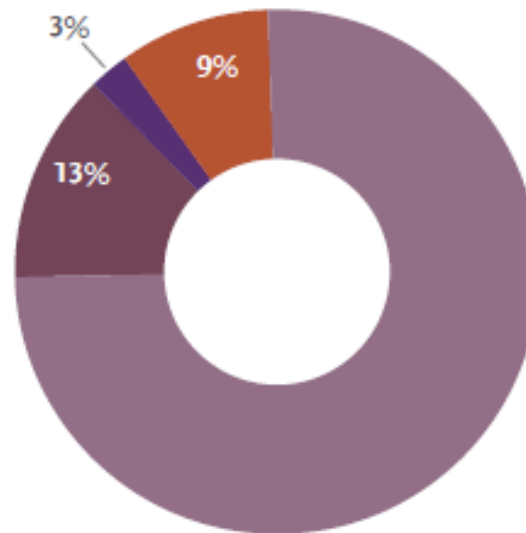
# 2017 GHG Emissions Inventory

Total Emissions



By Mode

- Heavy Rail – 4%
- Light Rail – 9%
- Metro Operated Bus Fleet – 65%
- Contracted Bus Fleet – 4%
- Vanpool – 4%
- Non-Modal Emissions – 14%



By Source

- Vehicle Fuel – 75%
- Rail Electricity – 13%
- Building Energy and Stationary Sources – 9%
- Other – 3%

<b>Total Emissions:</b>	<b>390,251</b>
<b>Total Displacement:</b>	<b>-431,009</b>
<b>NET EMISSIONS:</b>	<b>-40,758</b>
	<b>(MT CO<sub>2</sub>e)</b>

*Non-modal emissions include building energy use, water, refrigerants, and fuels for support vehicles*

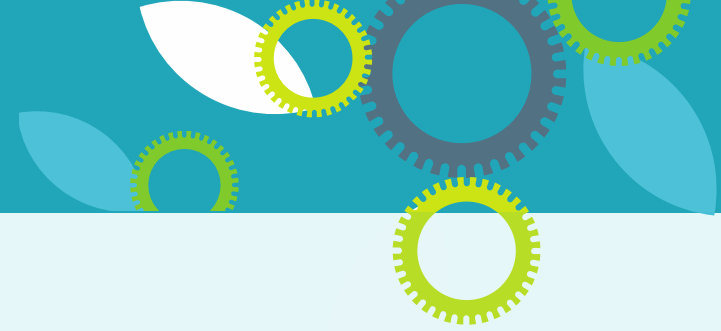
# GHG Mitigation Measure Categories

Mitigation Category
<b>Energy Supply</b> Expand use of renewable energy for vehicles and facilities Maximize participation in CPA
<b>Vehicles</b> Convert revenue fleets to ZEVs Convert non-revenue fleets to ZEVs
<b>Buildings &amp; Facilities</b> Adopt zero energy building guidelines Retrofit existing facilities
<b>Other Resources Areas</b> Expand employee commuting program Purchase carbon offsets



# Discussion Topics for December Workshop

- How should measures be prioritized? Long term vs. short term?
- What are some implementation risks?
- Where are synergies & opportunities for partnerships?
- Are there measures or strategies not addressed?



**Thank you!**

**Questions?**

### Action Items Log

Meeting Date:	Status	Council Member	Comment	Metro Response
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	Open	Belinda Faustinos	Update on the RAMP/RCIS plan	Working to schedule an update on the plan's implementation on the ARC
12-Oct-18	Open	Michael Samulon	Encourages Metro to include an annual benchmarking against the updated path to reach numbers on the CAAP	Currently under consideration.
12-Oct-18	Open	Hilda Blanco	Thoughts on publishing the CAAP	Once CAAP is approved, it will be posted on Metro's website.
12-Oct-18	Open	Caryn Mandelbaum	Request of a timeframe on Motion 57 updates	Motion 57 Progress Update is scheduled for the 3/8/19 meeting. We will provide monthly informal updates.
12-Oct-18	Closed	Michael Samulon	Request to provide an LRTP Toolkit	DONE: Was sent to council members on 10/24/18.
12-Oct-18	Closed	Bruce Reznik	Request to provide Paul Backstrom's notes on LRTP Update	DONE: Notes attached to the Meeting Minutes for 10/12/18.
21-Sep-18	Closed	Bryn Lindblad	Request of a Meetings ARC	DONE: Provided Meetings Arc at the 10/12/18 meeting.

**SUSTAINABILITY COUNCIL MEMBERSHIP LIST**

YEAR: 2018-19

		Department	Email
Metro Exec Staff	3	Stephanie Wiggins	CEO WIGGINSS@metro.net
		Rick Clarke	Construction ClarkeR@metro.net
		Bryan Pennington	Construction PenningtonB@metro.net
Metro Staff	---	Aaron Santos	CEO SantosAa@metro.net
		Cris Liban	ECSD LibanE@metro.net
		Paul Backstrom	Planning BackstromP@metro.net
		Dilara El-Assaad	ECSD rodriguezdi@metro.net
		Carolina Coppola	Vendor/CM CoppolaC@metro.net
		Debra Avila	Vendor/CM AvilaD@metro.net

Main Category	No. Seats	Sub- Category	Classification	Member First Name	Member Last Name	Member Organization	Member Email	Member Phone	Notes
Local Gov't Public entities (COGs, cities, special jurisdictions)	3	City of Los Angeles	Primary	Lauren	Faber	City of LA	lauren.faber@lacity.org		
			Alternate	Michael	Samulon	City of LA	michael.samulon@lacity.org		
		County of Los Angeles	Primary	Kristen	Torres-Pawling	County of LA	kpawling@ceo.lacounty.gov		
			Alternate	Rita	Kampalath	County of LA	RKampalath@ceo.lacounty.gov		
		Other (Small Cities, etc.)	Primary	Thomas	Small	Small Cities	Thomas.small@culvercity.org	310-922-7286	
			Alternate	VACANT					
Environmental NGOs	7	Water Resources	Primary	Caryn	Mandelbaum	Leonardo DiCaprio	caryn@ldcfoundation.org	310-927-4914	
			Alternate	Roy	Thun	GHD	roy.thun@GHD.com	805-501-3956	
		Water Quality	Primary	Bruce	Reznik	LA Waterkeeper	bruce@lawaterkeeper.org	619-851-9997	
			Alternate	Steven	Johnson	Heal the Bay	sjohnson@healthebay.org	310-227-7963	Requested by Rita Kampalath, as replacement
		Energy	Primary	Joel	Levin	Plug-In America	jlevin@pluginamerica.org	213-935-1364	
			Alternate	Michale	Swords	LACI	mike@Laincubator.org	310-709-3543	
		Habitat /Natural Resources	Primary	Belinda	Faustinos	Nature For All	belinda@sangabrielmountains.org ; belinda@lanatureforall.org	626-614-4990	
			Alternate	VACANT					
		Climate	Primary	VACANT					Former Member: Fernando Cazares
			Alternate	Cindy	Montanez	Tree People	cmontanez@treepeople.org		
		Materials and Resources	Primary	Bryn	Lindblad	Climate Resolve	blindblad@climateresolve.org	310-227-0184	
			Alternate	Peter	Meng	CEENGR	pmeng@ceengr.com		
Air Quality	Primary	VACANT							
	Alternate	VACANT							
NGO Equity	1	Social, Environment Injustice (Equity)	Primary	VACANT				Former Member: Omar Gomez as of 09/17/18	
			Alternate	VACANT				Former Member: Wendy Ramallo as of 09/17/18	
Professional Associations (Architects and Engineers)	2		Primary	Ghina	Yamout	Alta Environmental	ghina.yamout@altaenviron.com	850-980-2078	
			Alternate	Joe	Ablay	ICI Engineering	joe.ablay@IClengineers.com	909-967-0236	
			Primary	Patricia	Menjivar	Kleinfelder	pmenjivar@kleinfelder.com	(213) 610-0817	
			Alternate	Kimberly	Colbert	Colbert Group	kimberly@colbertgroup.com		
Landscaping and Infrastructure Design	1		Primary	Doug	Dietrich	Burns and McDonnell	ddietrich@burnsmcd.com	913-325-3632	
			Alternate	Charles	Favors	CBF XIERSCAPE	cfavors@yahoo.com	323-570-6261	
Local Labor Unions	1		Primary	VACANT				Jennifer Kropke, IBEW Local 11, submitted an Application	
			Alternate	Carolyn	Hull	LA County Economic Dev	carolyn.hull@laedc.org		
Public Health	1		Primary	Elizabeth	Rhoades	LA County Dept of Public	erhoades@ph.lacounty.gov		
			Alternate	Jack	Sahl	Jack Sahl & Associates	jack@jsahl.com		
Technical Advisory Committee (TAC)	1		Primary	Mike	Bagheri	City of Pasadena	mbagheri@cityofpasadena.net	626-744-7208	
			Alternate	Mark	Hunter		mhunter@santa-clarita.com	661-288-1460	
Transportation Business Advisory Council (TBAC)	1		Primary	Berwyn	Salazar	Global ASR	berwyn@globalasr.com		
			Alternate	James	Okazaki	SBC Global	jokazaki@sbcglobal.net		
Associated General Contractors (AGC)	1		Primary	Emily	Freund	WSP	emily.freund@wsp.com		
			Alternate	Mark	Kempton	Kempton Strategies	mark@kemptonstrategies.com	408-431-7789	

Green Building and Services Industry	2		Primary	Salem	Akeworki	City of Long Beach/FUSE	safeworki@valuesustainability.co	510-701-7056	
			Alternate	Pavitra	Rammohan	HATCH	pavitra@deepproot.com	323-708-0360	
			Primary	VACANT					
			Alternate	John	Williams	Impact Infrastructure	john.williams@impactinfrastructur		
Real Estate Development Community	1		Primary	Anthony	Brower	Gensler	anthony.brower@gensler.com	213-337-3916	
			Alternate	Will	Wright	AIA Los Angeles	will@aialosangeles.com	310-309-9580	
Academic Institution	1		Primary	Hilda	Blanco	USC	hblanco@price.usc.edu		
			Alternate	Mehran	Mazari	Cal State LA	mmazari2@calstatela.edu	323-332-1823	
Foreign Organization	1	Foreign Entities	Primary	Stephen	Cheung	President World Trade Ctr	stephen.cheung@wtcla.org		
			Alternate	Aki	Luukkainen	Commissioner, Consulate General of Finland	aki.luukkainen@formin.fi	310-739-0832	
Future Memberships Voted by SAC	3		Primary						
			Alternate						
			Primary						
			Alternate						
			Primary						
Total	30								