



# Sustainability, Resilience, and Innovation (SRI) at Metropolitan Water District

SBCCOG General Assembly

March 23, 2023

# Sustainability, Resilience and Innovation Office

**Vision** A resilient and equitable water future that protects nature and ensures current and future generations have access to high quality and affordable drinking water



**Mission** Empowering Metropolitan to deliver its core mission by inspiring and implementing solutions that benefit people, nature and the climate

# SRI 22-24 Strategic **Priorities**



Lead Climate Action



Build Metropolitan Leadership in SRI



Develop Sustainability Strategy

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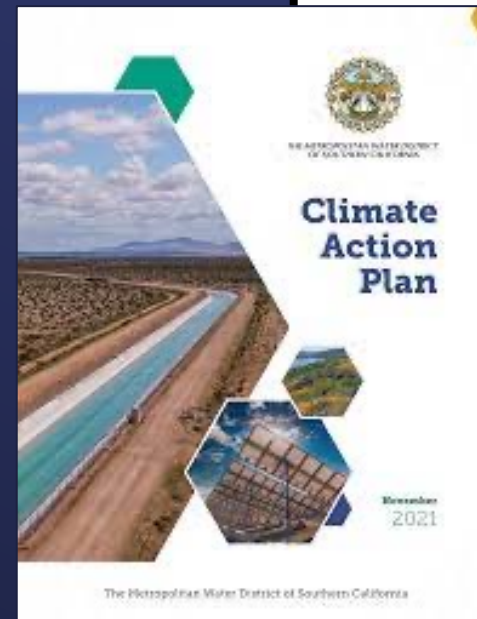
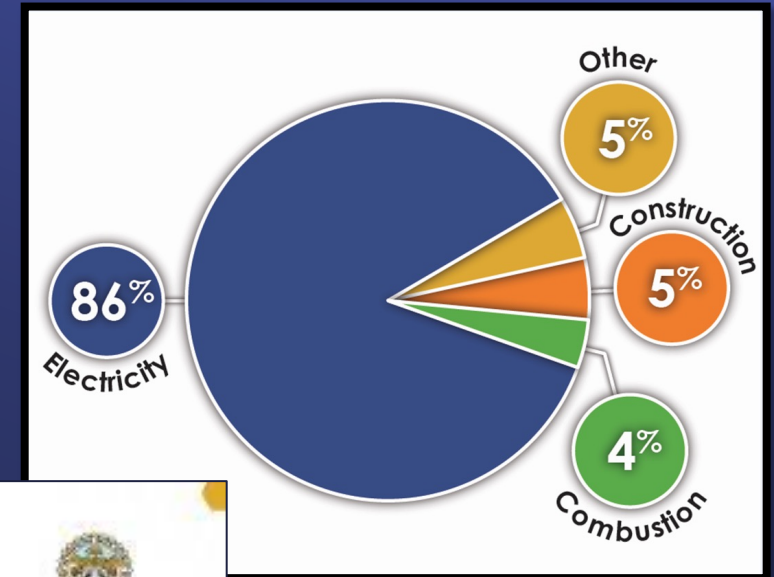


**Develop Sustainability Strategy**

# Climate Action Plan Objectives

- Carbon Neutral by 2045
- Reduce greenhouse gas (GHG) emissions from Metropolitan's operations and future construction projects
- Increase resiliency and energy independence
- Support California's GHG reduction goals
- Complement other Metropolitan planning efforts:
  - One Water / Integrated Resources Plan
  - Capital Investment Plan
  - Infrastructure Resilience Plan
  - Energy Sustainability Plan

MWD Emissions by Sector



# Implementing the Climate Action Plan



#### Turf Replacement Rebates:

June: 817,719 ft<sup>2</sup> removed  
FY2020/21-FY2021/22: 9,177,381 ft<sup>2</sup> removed



#### Smart Controllers:

June: 3,369 units rebated  
FY2020/21-FY2021/22: 26,992 units rebated



#### Sprinkler Nozzles:

June: 4,110 units rebated  
FY2020/21-FY2021/22: 60,464 units rebated



#### Clothes Washers:

June: 512 units rebated  
FY2020/21-FY2021/22: 31,577 units rebated




#### Toilets:


June: 2,833 units rebated  
FY2020/21-FY2021/22: 23,848 units rebated



# CAPDash Public GHG Dashboard



## The Metropolitan Water District of Southern California Climate Action Plan Dashboard



Metropolitan has prepared a climate action plan (CAP) to outline a strategy for reducing greenhouse gas (GHG) emissions associated with future construction, operation, and maintenance activities.

The CAP, adopted by Metropolitan Water District's Board of Directors in May of 2022, is a comprehensive roadmap that analyzes historical GHG emissions, prepares a forecast of future GHG emissions, sets a GHG reduction target for reducing emissions consistent with applicable state policies including SB 32 and EO B-55-18, and identifies a suite of specific reduction actions that Metropolitan can implement to achieve the adopted target consistent with Section 15183.5 of the State CEQA Guidelines. The CAP is a customized roadmap for making informed decisions and understanding where and how to achieve emissions reductions that conform to Metropolitan's mission/goals in a meaningful and cost-effective manner.

Strategies for reducing emissions include phasing out natural gas combustion at district facilities, transitioning to a zero-emissions vehicle fleet, utilizing carbon free electricity, improving energy efficiency, increasing waste diversion to achieve zero waste, increasing water conservation and local supplies, and evaluating carbon capture and sequestration opportunities.

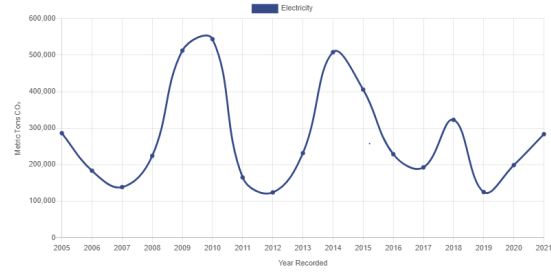
Please take the time to explore Metropolitan's current implementation status for the 2022 Climate Action Plan. As Metropolitan implements the 2022 CAP, CAPDash will be updated periodically to reflect the most recent accomplishments and current status of each GHG reduction measure.

**GHG Inventory**  
 2021: 316,716 MT CO<sub>2</sub>e  
Includes emissions from energy, transportation, waste, & water.

**GHG Targets**  
 Total Carbon Budget for 2021: 12,577,375 MT CO<sub>2</sub>e emissions  
 Total Carbon Budget for 2025: 14,466,475 MT CO<sub>2</sub>e emissions  
 Annual GHG Emissions Target: 9 MT CO<sub>2</sub>e emissions/year

**Electricity Emissions**

Line Chart showing emissions (Metric tons CO<sub>2</sub>e) from 2005 to 2021. The chart shows a clear seasonal cycle with peaks around 2009 and 2014, and troughs around 2007 and 2012.




**Raw Data**

Sector	Segment
Electricity	Metropolitan

**Total CO<sub>2</sub>e**

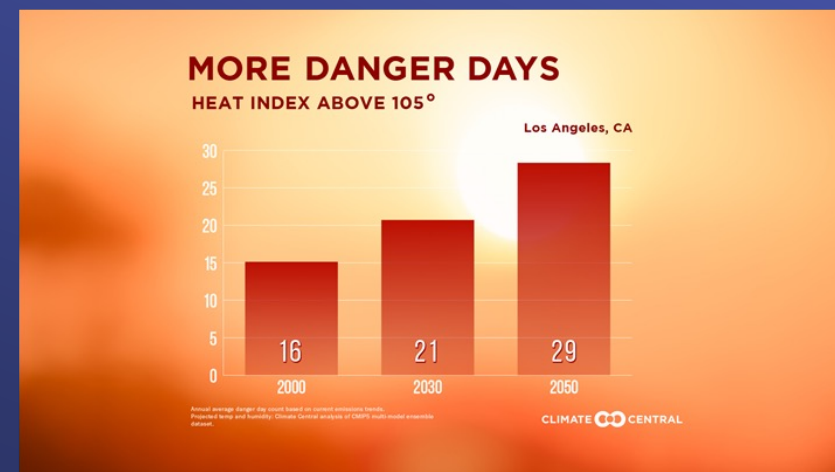
Donut chart showing the composition of total CO<sub>2</sub>e emissions. The largest portion is Electricity (dark blue), followed by Natural Gas (Stationary) (green), and Diesel (Stationary) (red).



**Raw Data**

Sector	Segment	2005	2006	change
Aviation Gasoline (Mobile)	Metropolitan Water District operations		5,785 MT	
CNG (Mobile)	Metropolitan Water District operations			
Construction	Metropolitan Water District operations	12,081 MT	12,081 MT	
Diesel (Mobile)	Metropolitan Water District operations		1,342 MT	
Diesel (Stationary)	Metropolitan Water District operations			
Electricity	Metropolitan Water District operations	286,267 MT	183,513 MT	-102,754
Electricity T&D Losses	Metropolitan Water District operations	4,305 MT	2,954 MT	-1,351 M
Employee Commute	Metropolitan Water District operations	8,247 MT	8,247 MT	
Gasoline (Mobile)	Metropolitan Water District operations			
HFC Fugitive Emissions	Metropolitan Water District operations			
Jet Fuel (Mobile)	Metropolitan Water District operations			
Natural Gas (Stationary)	Metropolitan Water District operations	1,006 MT	1,081 MT	75 MT
Propane (Stationary)	Metropolitan Water District operations	1 MT	1 MT	
SF <sub>6</sub> Fugitive Emissions	Metropolitan Water District operations			
Solid Waste	Metropolitan Water District operations	2,757 MT	2,757 MT	
Water/Wastewater	Metropolitan Water District operations	99 MT	99 MT	

# Impacts Beyond Drought



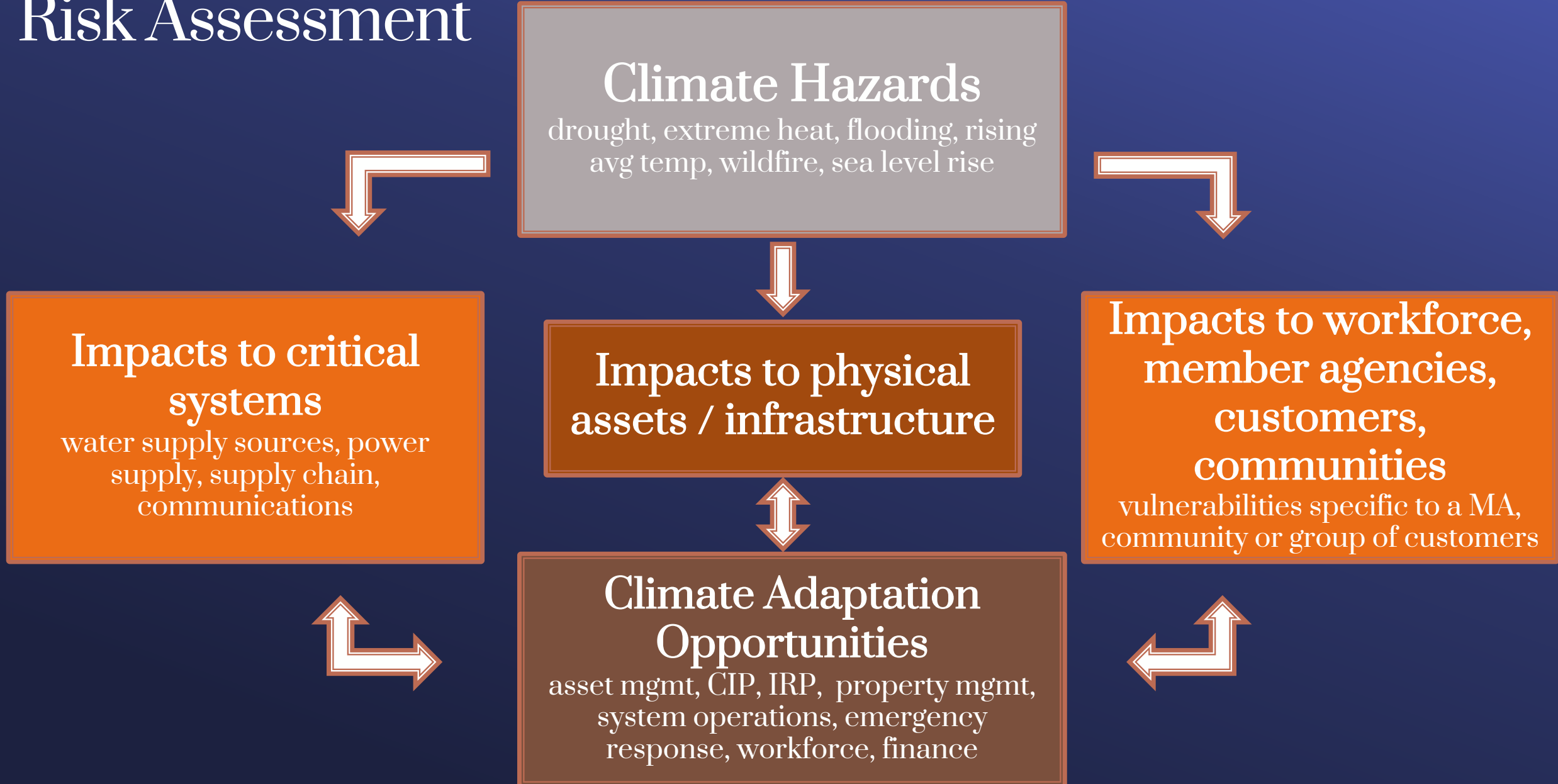


# Cascading Impacts Expose Vulnerabilities



Drought + Drought  
Drought + Drought + Drought  
Drought + Extreme Heat  
Drought + Flooding  
Drought + Fire

# Climate Vulnerability and Risk Assessment



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# New Sustainability, Resilience and Innovation Council

- Members represent Metropolitan Group Managers
- Elevate SRI initiatives within & among Groups
- Participants responsible for implementing change

Engineering

Water  
Resources  
Management

Diversity,  
Equity and  
Inclusion

External  
Affairs

Finance

Water System  
Operations

Real Property

Admin  
Services

Office of the  
GM

Human  
Resources

Information  
Technology

Bay Delta /  
Colorado River

# SRI Training and Facilitation



- **External Sustainability Certificate Programs**
- **External Credentialing Programs**
- **Adding SRI topics to existing training programs**
- **Partner with Member Agencies on Training and Workforce**
- **Inspire and facilitate innovation**
- **Exchange best practices across utilities and partners**

# SRI Strategic **Priorities**



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Build Metropolitan Leadership in SRI



Develop Sustainability Strategy

Metropolitan's Sustainability Strategy will include **Guiding Principles**, **Section-Specific Goals** and **Key Performance Indicators** and **Key Initiatives**



# Sustainability Strategy Development

Readiness

Metropolitan  
Internal  
Management  
and Staff  
Briefings  
Member Agency  
Managers  
External Partners

Data Collection & Analysis

Align plans (IRP,  
CAP, Energy Sust.  
Plan, MA plans  
etc.)  
Partner surveys  
and interviews  
SRI Council input

Visioning & Listening

SRI Council,  
MAMs, External  
Partners  
Board Workshop  
Co-Create  
Guiding  
Principles  
Develop Goals

Plan Development

Identify KPIs  
Prioritize  
Initiatives  
Draft for  
Comment  
Final Plan  
anticipated  
Spring 2023

Implement, Track, Adjust

Implement  
policies and  
projects to meet  
goals  
Annual Reports  
Revisit Strategy  
Regularly



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